



सत्यमेव जयते

**Government of India  
Ministry of Mines**

**A COMPILATION OF NATIONAL  
GEOSCIENCE AWARDEES 1995-2012**

**March 2015**



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Ministry of Mines**

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**NATIONAL GEOSCIENCE AWARD  
FOR EXCELLENCE**

## NATIONAL GEOSCIENCE AWARD FOR EXCELLENCE - 2010



**Professor Chervela Leelanandam**

*Professor Chervela Leelanandam*, former Dean of Science, Osmania University and CSIR Emeritus Scientist, has been an academician and researcher par excellence who has pioneered the study of igneous petrology in India.

He completed his studies in geology from the Waltair University with a brilliant academic record and started his carrier as a teacher in Osmania University from where he obtained his first doctorate in the year 1961. He moved to Cambridge University, England on a Commonwealth fellowship and earned his second doctorate in 1965 under renowned academician Professor W.A. Deer.

Prof. Leelanandam is an accomplished researcher whose five decade long studies in the Eastern Ghats Belt has given a new dimension to the understanding of the granulite facies metamorphism and the evolution of various igneous complexes of India. His work on the petrogenesis of the layered anorthosite complexes at Kondapalli and Chimalpahad in Andhra Pradesh is well recognized.

Prof. Leelanandam is credited for making significant contribution towards the recognition and detailed petrological studies on the Prakasam Alkaline Complex. His innovative research on the deformed alkaline rocks and the carbonatites leading to the delineation of a 1200 km long Precambrian suture zone along the western margin of the Eastern Ghats Belt is highly acclaimed.

The discovery and subsequent research work by him on the Kandra Ophiolite Complex provided deeper insight into the understanding of crustal evolution in the Nellore-Khammam schist belt of Andhra Pradesh. Prof. Leelanandam along with his students and fellow researchers in Eastern Ghats are internationally recognized through his publications in the well acclaimed journals.

## NATIONAL GEOSCIENCE AWARD FOR EXCELLENCE–2009



**Professor Ashok Sahni**

*Professor Ashok Sahni* is internationally recognized for his outstanding contributions in the area of vertebrate palaeontology. In his research career spanning over four decades, Prof Sahni has contributed significantly to the understanding of Cretaceous vertebrates, evolution of whales, Siwalik micro-vertebrates and skeletal ultra-structures of mammals. He is among the few Indian researchers to lead a team of interdisciplinary workers to address challenging questions in Indian geology. His findings on the duration of Deccan volcanism, integrating palaeontological, geochronological and magnetostratigraphic data, are a significant contribution in this sense. Professor Sahni continues this approach and he is presently involved in investigating the India – Asia collision and the consequent migration and dispersal of vertebrate life. His studies have led to some of the widely accepted hypotheses in macro-evolution and palaeobiogeography. His contribution on dinosaurs and their nesting sites in India are highly acclaimed.

As a dedicated teacher, Professor Sahni has trained a generation of research students at Panjab University, Chandigarh, who, as accomplished researchers, continue the tradition of excellence established by the Guru. Professor Sahni also played a leading role in the popularization of science among school children and contributed to the exhibits in the Natural History Museum in Chandigarh. He inspired a large number of Indian researchers in this country through his association in various capacities in the governance of the Wadia Institute of Himalayan Geology and Birbal Sahni Institute of Palaeobotany. He was also the Chairman of the Programme Advisory Committee (Earth Sciences) of the DST.

Professor Ashok Sahni has been honoured by the fellowships of the Indian National Science Academy, Indian Academy of Sciences, National Academy of Sciences and the Third World Academy of Sciences. The coveted Honorary Membership of the Society of Vertebrate Paleontology, USA, was also conferred upon him.

## NATIONAL MINERAL AWARD FOR EXCELLENCE – 2008



**Professor Sisir Kumar Sen**

*Professor Sisir Kumar Sen* former Dean, Indian Institute of Technology, Kharagpur, has been an academician and researcher par excellence who has pioneered the study of advanced metamorphic petrology in India. In recognition of his lifetime contribution in the advancement of modern trends in teaching and research in metamorphic petrology in India, the National Mineral Award of Excellence -2008 was conferred on him.

Professor Sen has made seminal contribution in teaching metamorphic petrology for over three decades by introducing modern techniques and nurturing a pool of eminent researchers and teachers in the subject. His outstanding research in metamorphic petrology is based largely on the patterns of distribution of major elements among common metamorphic minerals. He has innovatively combined the mineral and rock chemistry to obtain a better insight into the origin of various minerals in different types of metamorphic rocks. He is credited with the formulation and fine calibration of several geo-thermometers. The orthopyroxene-garnet geothermometer developed by him in 1984 is still most widely used and internationally accepted.

Studies carried out by Prof. Sen along with his students and fellow researchers have also provided information on the evolution of various high grade rocks of Eastern Ghats and South Indian terrains. Prof. Sen is internationally recognized through his publications in acclaimed journals. He has been a member of the IUGS Subcommittee on Metamorphic Rocks and had also held the editorship of the prestigious 'Journal of Metamorphic Geology' published from UK, for seven years.

## NATIONAL MINERAL AWARD FOR EXCELLENCE – 2006



**Dr. Syed Mahmood Naqvi**

*Dr. Syed Mahmood Naqvi*, was Senior Scientist, National Geophysical Research Institute, Hyderabad. He is a scholar of repute who has made immense contribution through his studies in last four decades towards the understanding of the crustal evolution of the Indian subcontinent.

Through sustained petrological and geochemical studies on various rock types of the Dharwar craton and the greenstone belts, Dr. Naqvi has put the Precambrian Geology of India on the International map.

One of the earliest proponents of the Plate Tectonics theory even when it was not much in vogue, Dr. Naqvi has shown that horizontal compression and accretion operated even at 2.7 Ga for the development of the Dharwar greenstone belts. His painstaking work on the Archaean has brought many facts of the early history of the earth to light.

Dr. Naqvi is one of the most internationally cited scientists of the country who has over 180 scientific papers to his credit. He has also authored seven books and has produced thirty PhD's under his supervision.

## NATIONAL MINERAL AWARD FOR EXCELLENCE – 2002



**Dr. Harsh K. Gupta**

*Dr. Harsh K. Gupta*, Secretary to the Government of India, Department of Ocean Development, an eminent geo-scientist, who has brought glory to the earth science community in India, through his outstanding contribution in the field of geophysics, earthquake and ocean development was conferred the National Mineral Award for Excellence in 2002.

Dr. Gupta's investigated artificial reservoir induced earthquakes all over the world and developed criteria to discriminate between reservoir induced earthquakes and normal earthquakes. The criteria generated are now globally applied to locate safer dam sites. His first book on "Dams and Earthquakes" has been extremely cited and has been translated in Russian and Chinese. He also carried out detailed studies on Latur earthquake, one of the most devastating earthquakes in the stable continental region and has established that fluids existing at shallow crustal depths played an important role in the genesis of the Latur earthquake.

Dr. Gupta held many important positions in various organizations included Director, Centre for Earth Science Studies, Trivandrum, Vice-Chancellor, Cochin University of Science & Technology, Cochin, Adviser, Department of Science and Technology, Government of India, New Delhi, Director, National Geophysical Research Institute, Hyderabad, and Secretary to the Government of India, Department of Ocean Development. Dr. Gupta in his capacity as Vice Chancellor, Cochin University of Science & Technology was responsible for establishing a well equipment computer centre in its joint research project of Defence Research & Development Organisation (DRDO) and Cochin University of Science & Technology. As Adviser, Department of Science & Technology, he initiated many new programmes including consolidating inputs on International Geosphere Biosphere Programme (IGBP) projects.

While at NGRI Dr. Gupta initiated detailed work on Gas Hydrates in the Exclusive Economic Zone of India. A comprehensive report was prepared under his leadership entitled "Gas Hydrate Exploration along the Continental Margins of India – Evaluation of Available Geophysical and Geological Data". During the his tenure as Secretary, Department of Ocean Development, he has left his imprint in Antarctica and established the Indian Ocean-Global Ocean Observation System (IO-GOOS) involving all the Indian Ocean Rim countries and initiated detailed seismic survey in the entire Exclusive Economic Zone of India for laying its legal claims on the continental shelf.

## NATIONAL MINERAL AWARD FOR EXCELLENCE – 2001



**Padamshree Dr. Hari Narain**

*Padamshree Dr. Hari Narain*, Former Director and Emeritus Scientist, NGRI, Hyderabad is an eminent geoscientist who has made outstanding contributions in a career spanning 56 years. He is recognized as a person who has played a stellar role in developing geophysics and making it an important applied branch in India. He has been active in the fields of exploration, exploitation, management, conservation of natural resources and education. For his outstanding contribution in the field of geosciences, National Mineral Award for Excellence -2001 was conferred upon him.

Dr. Narain was instrumental in the establishment of a research institute under the aegis of ONGC, which is presently known as ‘K.D. Malaviya Institute of Petroleum Exploration’. His tenure as Vice Chancellor of Banaras Hindu University from 1978 to 1981 is another landmark for referencing his skill in creating harmonious atmosphere congenial for serious studies and research. He was also successful in reorienting academic courses and provided direction for research activities. Dr. Narain enjoys the significant distinction of having been the first civilian Surveyor General of India from 1972 till 1976. He has also held many other important positions in various universities and organizations, including Director, National Geophysical Research Institute, Hyderabad.

Recognizing his distinguished record and meritorious services in the field of geosciences, he was conferred the coveted “Padamshree” award in 1974. Dr. Narain is a recipient of M.N. Saha Barth Centenary Gold Medal of Indian Science Congress, Commemoration Medal by USSR Academy of Science and Petrotech-1999 Lifetime Achievement Award.

## NATIONAL MINERAL AWARD FOR EXCELLENCE – 2000



**Padmashree Dr. B.P. Radhakrishna**

*Padmashree Dr. Bangalore Puttaiah Radhakrishna*, President, Geological Society of India, Ex-Director, Department of Geology and Mines, Karnataka and an eminent geoscientist of the country was conferred National Mineral Award for Excellence in 2000 for his outstanding contributions in the field of geosciences in his career spanning over 60 years.

Dr. Radhakrishna has carried out significant studies in the field of geology and physiography of Indian sub-continent. He presented an original concept on the break-up and reassembly of different segments of Indian continent. Dr. Radhakrishna was the first to point out, way back in 1952, that the Indian Peninsula is not a static mass unaffiliated by recent static tectonic movements. Dr. Radhakrishna has provided a masterly review and synthesis on the influence of crustal evolution on ore deposition based on a thorough survey of the metalliferous deposits of India.

Dr. Radhakrishna is one of the founder members of Geological Society of India and served as its first Secretary, editor of the official Journal of the Society and become its President in 1992. In recognition of his outstanding achievements, Dr. Radhakrishna was elected as Fellow of Indian Academy of Science in 1956, Indian National Science Academy in 1972, Honorary Fellow of the Geological Society of London in 1986 and Geological Society of America in 1988. He was awarded the Pramatha Nath Bose Medal of Asiatic Society, Calcutta in 1990 and conferred with Honorary degree of Doctor of Science in 1992 by Indian School of Mines.

In recognition of his meritorious services rendered in the field of geosciences, the President of India conferred “*Padmashree*” on him in 1993.

## NATIONAL MINERAL AWARD FOR EXCELLENCE – 1997



**Professor K.S. Valdiya**

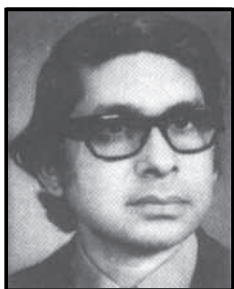
*Professor K. S. Valdiya* of the Jawahar Lal Nehru Centre of Advanced Scientific Research, Bangalore is an eminent teacher and geologist of International repute was conferred National Mineral Award for Excellence – 1997 for his outstanding contributions on the geodynamics of Himalayas including its sedimentation history, tectonics and environment.

Professor Valdiya's research work on Himalayas is internationally cited. The salient features of his studies include pioneering research on Cyanobacteria - built stromatolites for refinement of stratigraphic order in Lesser Himalayas and reconstruction of the paleogeography of the subcontinent during Proterozoic - Lower Precambrian time. The stratigraphic and structural studies done by him on the Himalayas have contributed significantly on the understanding of the evolutionary history of this young mountain belt. Professor Valdiya has also made significant contribution on the characterization and genetic aspect of the mangesite and soapstone deposits in eastern Kumaun.

He has been actively involved in the study of neotectonics of the lesser Himalayas and Southern Indian shield in South Karnataka and adjoining Tamilnadu. The field-based studies carried out by him has demonstrated that geomorphological rejuvenation of landforms, changes in courses of rivers, and their blockages besides modification of landform due to acceleration of gully erosion are related to continuous activity along planes of weakness in the rocks. His work has shown that there has been continuing movements on ancient faults. His studies have made widespread impact on the hazard assessment and mitigation aspects of these earthquake-prone belts.

The societal aspect of his research work had been the pioneering hydro geological studies on reduced stream flow and depletion of mountain springs in relation to environmental degradation.

## NATIONAL MINERAL AWARD FOR EXCELLENCE – 1996



**Professor V.K. Gaur**

*Professor V.K. Gaur* of the Indian Institute of Astrophysics, Bangalore is an eminent teacher and a researcher in geoscience of international repute. He was conferred the first National Mineral Award for Excellence – 1996. He is an outstanding geophysicist who has given a new dimension to the research on this subject in India. He has left a mark in all spheres of his activities, i.e. as an academician in the University of Roorkee, as a researcher in the National Geophysical Research Institute and as a Secretary, Department of Ocean Development, Government of India. He has been instrumental in creating several schemes of research and developing schools of capable scientists in all of these institutions.

Professor Gaur has made pioneering contributions in acquiring new knowledge in Earth System Science including the host rock effect in geo-electromagnetics and seismotectonic setting of the Central Himalayas. His fundamental contribution in enhancing the understanding of the seismic hazard in Himalayas and in particular of mega hydroelectric projects in this geologically and ecologically sensitive terrain had provided a useful input for construction and planning of such projects.

He is credited with the research leading to the identification of a thick lithospheric root beneath the Dharwar Craton using seismic tomography and crustal strain field in South India using GPS constrained baselines. He has designed and implemented modern programmes in Antractic Science, the National Ocean Information System (NOIS), the Marine Satellite Information Services (MARSIS), Coastal Ocean Monitoring and Predication System and productive Coastal Ocean System (CODAPS)

# **NATIONAL GEOSCIENCE AWARDS**

## NATIONAL GEOSCIENCE AWARDS – 2012

### Mineral Discovery & Exploration



**Shri Kahnu Charan Sahoo**  
Geological Survey of India

*Shri Kahnu Charan Sahoo* of Geological Survey of India, Kolkata has made outstanding contribution towards the discovery of Platinum Group of Elements (PGE) in Bangur area, Kendujhar District, Odisha. He and his team members have added to the inventory of the country the PGE group resources of 1.58 million tons of ore which equates to 4.32 tons of PGE metal.



**Dr. Manoranjan Mohanty**  
Geological Survey of India

*Dr. Manoranjan Mohanty* of Geological Survey of India, Bengaluru, has made outstanding contribution towards the discovery of Platinum Group of Elements (PGE) in Bangur area, Kendujhar District, Odisha. He and his team members have added to the inventory of the country the PGE group resources of 1.58 million tons of ore which equates to 4.32 tons of PGE metal.



**Shri Priyadarshi Sahoo**  
Geological Survey of India

*Shri Priyadarshi Sahoo* of Geological Survey of India, Bhubaneswar, has made outstanding contribution towards the discovery of Platinum Group of Elements (PGE) in Bangur area, Kendujhar District, Odisha. He and his team members have added to the inventory of the country the PGE group resources of 1.58 million tons of ore which equates to 4.32 tons of PGE metal.



**Shri Sisir Chandra Rath**  
Geological Survey of India

*Shri Sisir Chandra Rath* of Geological Survey of India has made outstanding contribution towards the discovery of Platinum Group of Elements (PGE) in Bangur area, Kendujhar District, Odisha. He and his team members have added to the inventory of the country the PGE group resources of 1.58 million tons of ore which equates to 4.32 tons of PGE metal.



**Dr. Shibban Kumar Bhushan**  
MSPL Limited

*Dr. Shibban Kumar Bhushan* of MSPL Limited, Hosepet, Karnataka and his teammate have been successful in discovering a rich rare earth element (REE) deposit in Barmer district, Rajasthan. The team has identified several carbonatite bodies with estimated resource of 5.3 million tons of ore of light rare earth element (LREE) with a recoverable content of 0.26 million tons.



**Shri Ashish Kumar**  
Ramgad Minerals & Mining Ltd.

*Shri Ashish Kumar* of Ramgad Minerals & Mining Limited, Hosepet, Karnataka and his teammate have been successful in discovering a rich rare earth element (REE) deposit in Barmer district, Rajasthan. The team has identified several carbonatite bodies with estimated resource of 5.3 million tons of ore of light rare earth element (LREE) with a recoverable content of 0.26 million tons.

## Coal, Lignite and Coal Bed Methane Discovery & Exploration



**Shri Jayanta Kumar Naik**  
Geological Survey of India

*Shri Jayanta Kumar Naik* of Geological Survey of India, Nagpur has made significant contribution in discovering a new coal resource in the Mand-Raigarh Coalfields in Mahanadi Valley Basin, Chhattisgarh. He and his team members have established thirteen regional coal blocks with maximum cumulative coal seam thickness ranging from 11 to 48 m, adding about 2 billion tons of 'Indicated Coal Resources' within quarriable depth.



**Shri Partha Dutta**  
Geological Survey of India

*Shri Partha Dutta* of Geological Survey of India, Kolkata has made significant contribution in discovering a new coal resource in the Mand-Raigarh Coalfields in Mahanadi Valley Basin, Chhattisgarh. He and his team members have established thirteen regional coal blocks with maximum cumulative coal seam thickness ranging from 11 to 48 m, adding about 2 billion tons of 'Indicated Coal Resources' within quarriable depth.



**Shri Arobindo Biswas**  
Geological Survey of India

*Shri Arobindo Biswas* of Geological Survey of India, Nagpur has made significant contribution in discovering a new coal resource in the Mand-Raigarh Coalfields in Mahanadi Valley Basin, Chhattisgarh. He and his team members have established thirteen regional coal blocks with maximum cumulative coal seam thickness ranging from 11 to 48 m, adding about 2 billion tons of 'Indicated Coal Resources' within quarriable depth.



**Shri Sudhibrata Ray**  
Geological Survey of India

*Shri Sudhibrata Ray* of Geological Survey of India, Nagpur has made significant contribution in discovering a new coal resource in the Mand-Raigarh Coalfields in Mahanadi Valley Basin, Chhattisgarh. He and his team members have established thirteen regional coal blocks with maximum cumulative coal seam thickness ranging from 11 to 48 m, adding about 2 billion tons of 'Indicated Coal Resources' within quarriable depth.



**Smt. Rashmi Rekha Naik**  
Geological Survey of India

*Smt. Rashmi Rekha Naik* of Geological Survey of India, Nagpur has made significant contribution in discovering a new coal resource in the Mand-Raigarh Coalfields in Mahanadi Valley Basin, Chhattisgarh. She and her team members have established thirteen regional coal blocks with maximum cumulative coal seam thickness ranging from 11 to 48 m, adding about 2 billion tons of 'Indicated Coal Resources' within quarriable depth.

## Oil, Natural Gas and Hydrates Discovery



**Dr. Aninda Mazumdar**  
National Institute of  
Oceanography

*Dr. Aninda Mazumdar* of National Institute of Oceanography, Goa, has made significant contribution towards the Indian gas hydrate exploration program in Krishna-Godavari basin through his innovative research work in the fields of pore-fluid geochemistry, iron-carbon-sulfur molybdenum (Fe-C-S-Mo) systematics, authigenic carbonates and paleo-methane emission events.



**Dr. Nimisha Vedanti**  
National Geophysical Research  
Institute

*Dr. Nimisha Vedanti* of National Geophysical Research Institute, Hyderabad has done outstanding work in the field of Hydrocarbon Exploration leading to enhanced oil recovery in the ‘Balol’ oil field of Cambay basin. Results obtained by her through the interpretation of seismic data have been useful to engineers in optimizing the production strategy.

## Groundwater Exploration



**Shri Kottapalli Venkata  
Satyanarayana**  
Geological Survey of India

*Shri Kottapalli Venkata Satyanarayana* of Geological Survey of India, Shillong and his teammates worked out the salt water- fresh water interface in the 700 km<sup>2</sup> area along the coastal belt between Puducherry and Chidambaram in the Cauvery basin. Results obtained by he and his team members on deeper aquifers would help the town planning authorities in ground water management and its utilization in the coastal belt.



**Shri B. Balakrishna**  
Geological Survey of India

*Shri B. Balakrishna* of Geological Survey of India, Hyderabad and his teammates worked out the salt water- fresh water interface in the 700 km<sup>2</sup> area along the coastal belt between Puducherry and Chidambaram in the Cauvery basin. Results obtained by he and his team members on deeper aquifers would help the town planning authorities in ground water management and its utilization in the coastal belt.



**Shri Manyam Srinivasa Kumar**  
Geological Survey of India

*Shri Manyam Srinivasa Kumar* of Geological Survey of India and his teammates worked out the salt water- fresh water interface in the 700 km<sup>2</sup> area along the coastal belt between Puducherry and Chidambaram in the Cauvery basin. Results obtained by he and his team members on deeper aquifers would help the town planning authorities in ground water management and its utilization in the coastal belt.



**Dr. Dinesh Gupta**  
Geological Survey of India

*Dr. Dinesh Gupta* of Geological Survey of India, Jaipur and his teammates worked out the salt water- fresh water interface in the 700 km<sup>2</sup> area along the coastal belt between Puducherry and Chidambaram in the Cauvery basin. Results obtained by he and his team members on deeper aquifers would help the town planning authorities in ground water management and its utilization in the coastal belt.

## Mining Technology



**Dr. Sanjay Kumar Roy**  
Central Institute of Mining and  
Fuel Research

*Dr. Sanjay Kumar Roy* of Central Institute of Mining and Fuel Research, Dhanbad, successfully developed an emulsion based explosive and cord system preventing huge National loss due to complete ban on nitro-glycerine (NG) explosives. This innovation by him is the first and so far the only approved non-nitroglycerine based explosive - cord system that has been patented.



**Prof. Gyanindra Kumar Pradhan**  
Amicable Knowledge Solution  
University

*Prof. Gyanindra Kumar Pradhan* of Amicable Knowledge Solution University, Satna, Madhya Pradesh, has successfully designed blasting rounds using waste plastic bottles in surface mines of UCIL, HCL and limestone mines of OCL and ACC Limited. This blasting technique has led to savings in crusher energy consumption and has also helped in the utilization of environmentally hazardous plastic bottles.

### Mineral Beneficiation



**Dr. Nilotpala Pradhan**  
CSIR Institute of Mineral &  
Materials Technology

*Dr. Nilotpala Pradhan* of Institute of Mineral & Materials Technology, Bhubaneswar, has done extensive research in the areas of mineral bio-processing and bio-remediation. Her work is aimed towards optimum mineral resource utilization so that valuable metals can be recovered from mining wastes by bioleaching processes for copper, nickel, uranium manganese and low grade iron ore and thereby preventing metal ion pollution of surrounding soil and water.

### Stratigraphy, Structural Geology, Paleontology, Geomorphology, Economic geology and Geodynamics



**Prof. Sunil Bajpai**  
Birbal Sahni Institute of  
Palaeobotany

*Prof. Sunil Bajpai* of Birbal Sahni Institute of Palaeobotany, Lucknow, has made significant contribution towards the understanding of Indian Tertiary vertebrate fauna and its integration with geodynamics. He discovered the oldest fossil whale in the world from about 47 Ma old rocks of northwest Himalaya and was instrumental in the discovery of the oldest Cenozoic land mammal fauna in South Asia from Surat district, Gujarat.

### Petrology & Geochemistry



**Dr. Sunil Kumar Singh**  
Physical Research Laboratory

*Dr. Sunil Kumar Singh* of Physical Research Laboratory, Ahmedabad, has done pioneering studies towards the understanding of the evolution of Himalaya. He could link the tectonics, climate, chemical and isotopic makeup of the oceans during the Cenozoic though his studies on the chemical and physical erosion in the Himalaya.



**Dr. Sankar Bose**  
Presidency University

*Dr. Sankar Bose* of Presidency University, Kolkata, has done fundamental research on the evolution of the Eastern Ghats Belt of India. His research on petrology, structure and geochronology of this belt has strengthened the correlation between India and East Antarctica during the Precambrian.

## Geo- Environmental Studies



**Dr. Ram Ratan Yadav**  
Birbal Sahni Institute of  
Palaeobotany

*Dr. Ram Ratan Yadav* of Birbal Sahni Institute of Palaeobotany, Lucknow, has made substantive contributions towards the application of dendrochronology and climatology for global change studies in India. His research has provided useful insights into the precipitation and temperature changes in the Himalaya while establishing the linkage between regional and hemispheric scale climatic parameters.

## Ocean Development



**Dr. B. Nagender Nath**  
National Institute of  
Oceanography

*Dr. B. Nagender Nath* of National Institute of Oceanography, Goa, has made significant contribution towards the exploration of the polymetallic nodules in the ocean. India's first cruise for exploring hydrothermal mineralization at oceanic spreading centres was led by him. His work provided a firm footing to India in the field of deep-sea oceanography.

## NATIONAL GEOSCIENCE AWARDS – 2011

### Mineral Discovery & Exploration



**Shri Pratap Singh Parihar**  
Atomic Minerals Directorate for  
Exploration & Research

*Shri Pratap Singh Parihar* of Atomic Minerals Directorate for Exploration & Research, Hyderabad has made significant contributions in the field of Uranium exploration in Tumallapalle area of Kadapa basin of Southern India. He and his teammates has established in situ reserve of 50,000 t  $U_3O_8$  up to a vertical depth of 500m.



**Dr. Ashwini Kumar Rai**  
Atomic Minerals Directorate for  
Exploration & Research

*Dr. Ashwini Kumar Rai* of Atomic Minerals Directorate for Exploration & Research, Hyderabad has made significant contributions in the field of Uranium exploration in Tumallapalle area of Kadapa basin of Southern India. He and his teammates has established in situ reserve of 50,000 t  $U_3O_8$  up to a vertical depth of 500m.



**Dr. Syed Zakaulla**  
Atomic Minerals Directorate for  
Exploration & Research

*Dr. Syed Zakaulla* of Atomic Minerals Directorate for Exploration & Research, Hyderabad has made significant contributions in the field of Uranium exploration in Tumallapalle area of Kadapa basin of Southern India. He and his teammates has established in situ reserve of 50,000 t  $U_3O_8$  up to a vertical depth of 500m.



**Shri Suresh Kumar**  
Atomic Minerals Directorate for  
Exploration & Research

*Shri Suresh Kumar* of Atomic Minerals Directorate for Exploration & Research, Hyderabad has made significant contributions in the field of Uranium exploration in Tumallapalle area of Kadapa basin of Southern India. He and his teammates has established in situ reserve of 50,000 t  $U_3O_8$  up to a vertical depth of 500m.



**Dr. N. Pazhamalai Nathan**  
Geological Survey of India

*Dr. N. Pazhamalai Nathan* of Geological Survey of India, Kolkata has made significant contributions towards exploration of strategically important PGE minerals, in Tamil Nadu. He and his team members have delineated a major PGE mineralized zone in the chromite bands in Chettiyampalaiyam- Tasampalaiyam blocks with PGE values ranging from 1 ppm to 26 ppm.



**Shri R. Vijay Kumar**  
Geological Survey of India

*Shri R. Vijay Kumar* of Geological Survey of India, Kolkata has made significant contributions towards exploration of strategically important PGE minerals, in Tamil Nadu. He and his team members have delineated a major PGE mineralized zone in the chromite bands in Chettiyampalaiyam- Tasampalaiyam blocks with PGE values ranging from 1 ppm to 26 ppm.



**Shri J. Prabhakar**  
Geological Survey of India

*Shri J. Prabhakar* of Geological Survey of India, Kolkata has made significant contributions towards exploration of strategically important PGE minerals, in Tamil Nadu. He and his team members have delineated a major PGE mineralized zone in the chromite bands in Chettiyampalaiyam- Tasampalaiyam blocks with PGE values ranging from 1 ppm to 26 ppm.



**Shri S. Dhanendran**  
Geological Survey of India

*Shri S. Dhanendran* of Geological Survey of India, Kolkata has made significant contributions towards exploration of strategically important PGE minerals, in Tamil Nadu. He and his team members have delineated a major PGE mineralized zone in the chromite bands in Chettiyampalaiyam- Tasampalaiyam blocks with PGE values ranging from 1 ppm to 26 ppm.

### **Coal, Lignite and Coal Bed Methane Discovery & Exploration**



**Shri Rajeeva Roy**  
Geological Survey of India

*Shri Rajeeva Roy* of Geological Survey of India, Kolkata has made significant contributions in exploration for Coal in the Gondawana basin of Chattisgarh. The commendable work by him and his team members has resulted in locating 2 billion tonnes of coal resources at shallow depths in Tatapani-Ramkola Coalfield, Chhattisgarh, an area previously thought to be non potential.



**Dr. Sudip Bhattacharyya**  
Geological Survey of India

*Dr. Sudip Bhattacharyya* of Geological Survey of India, Kolkata has made significant contributions in exploration for Coal in the Gondawana basin of Chattisgarh. The commendable work by him and his team members has resulted in locating 2 billion tonnes of coal resources at shallow depths in Tatapani-Ramkola Coalfield, Chhattisgarh, an area previously thought to be non potential.



**Dr Saibal Chandra Mitra**  
Geological Survey of India

*Dr Saibal Chandra Mitra* of Geological Survey of India, Kolkata has made significant contributions in exploration for Coal in the Gondawana basin of Chattisgarh. The commendable work by him and his team members has resulted in locating 2 billion tonnes of coal resources at shallow depths in Tatapani-Ramkola Coalfield, Chhattisgarh, an area previously thought to be non potential.

## Groundwater Exploration



**Dr. Bekkam Venkateswara Rao**  
Jawaharlal Nehru Technological  
University

*Dr. Bekkam Venkateswara Rao* of Jawaharlal Nehru Technological University, Hyderabad has made significant contributions towards precise identification and characterization of the aquifers through resistivity, seismic, and electromagnetic techniques in the Khondalitic Terrain of Eastern Ghats.

## Mining Technology



**Dr. Virendra Kumar Singh**  
Central Institute of Mining and Fuel  
Research

*Dr. Virendra Kumar Singh* of Central Institute of Mining and Fuel Research, Dhanbad has developed a technique based on two way analyses of variance for zonation of a mine into different homogeneous design sectors for an optimum slope design. The optimum mine slope design has advantageously helped in adopting steeper slope angles in different opencast mines, that has helped improved production by converting waste in to wealth.

## Stratigraphy, Structural Geology, Palaeontology, Geomorphology, Economic Geology and Geodynamics



**Prof. Laxman Singh Chamyal**  
Maharaja Sayajirao University

*Prof. Laxman Singh Chamyal* of Maharaja Sayajirao University of Baroda has made pioneering contributions in the understanding of the geological, tectonic and climatic events in western India during the Quaternary. He has extensively worked in mainland Gujarat and Kachchh peninsula to understand the evolution of the Gujarat alluvial plains and the Kachchh basin during the Quaternary.

## Petrology and Geochemistry including Mineralogy, Geochronology and Isotope Geology



**Dr. Vijay Kumar Kopparapu**  
School of Earth Science, SRTM  
University

*Dr. Vijay Kumar Kopparapu* of School of Earth Science, SRTM University, Nanded (Maharashtra) has carried out extensive petrological, geochemical and geochronological studies on the felsic and mafic granulites of Eastern Ghats which have provided evidences for the existence of Paleoproterozoic subduction-related magmatism in a continental-volcanic-plutonic regime in the Eastern Ghats Belt.

## Geophysics/Applied Geophysics



**Dr. Prakash Kumar**  
National Geophysical Research  
Institute

*Dr. Prakash Kumar* of National Geophysical Research Institute, Hyderabad, has made seminal contributions towards seismological mapping of the hitherto elusive Lithospheric-Asthenospheric boundary with the aid of converted waves using data from continent and ocean bottom. In active seismology he contributed towards understanding the cratonic evolution of the central India using the Deep Seismic Sounding Data across the Narmada zone.

## Geo-Environmental Studies



**Dr. Pradeep Srivasatava**  
Wadia Institute of Himalayan  
Geology

*Dr. Pradeep Srivasatava* of Wadia Institute of Himalayan Geology, Dehradun has contributed towards understanding the formation and evolution of the Ganga plains through the study of regional climates and Himalayan tectonics. It opened up new areas of research in the field of Quaternary Geology and Palaeoclimate during the Quaternary period.

## Disaster Management



**Dr. Shantanu Sarkar**  
Central Building Research  
Institute

*Dr. Shantanu Sarkar* of Central Building Research Institute, Roorkee has contributed extensively towards landslide studies with special reference to hazard zonation, database creation, landslide monitoring, slope stability and risk assessment. The technique of landslide hazard zonation mapping developed by him have been implemented and validated in different parts of Himalaya.

## Glaciology and Antarctic Research



**Dr. Thamban Meloth**  
National Centre for Antarctic &  
Ocean Research

*Dr. Thamban Meloth* of National Centre for Antarctic & Ocean Research, Vasco-Da-Gama, Goa has made seminal contributions in the field of Antarctic research. Dr. Thamban is credited with the establishment of the first state-of-the-art Ice core Laboratory at NCAOR, as a national facility for the study of ice/snow. He has significantly contributed to the advancement of environmental science and climate change using palaeoclimate archives of ocean sediment and polar ice cores.

## NATIONAL GEOSCIENCE AWARDS – 2010

### Mineral Discovery & Exploration



**Shri Narendra Kumar Kavdia**  
Hindustan Zinc Limited

*Shri Narendra Kumar Kavdia* of Hindustan Zinc Limited, Udaipur has carried out extensive work in the Rampura-Agucha and Rajpura-Dariba mineral belts of Rajasthan. The exploration carried out by him has resulted in augmentation of the size of Rampura Agucha deposits that got doubled to 120 million tonnes.



**Dr. Prabhakar S. Sangurmath**  
Hutti Gold Mines Company Limited

*Dr. Prabhakar S. Sangurmath* of Hutti Gold Mines Company Limited, Karnataka carried out detailed exploration in the Maruda gold deposit of Kerala. He is credited with establishing ore reserves of 2.32 million tonnes at 2.62 gram/tonne of gold and opening of Uti open-pit mine that has yielded about 1406 kg gold till now.



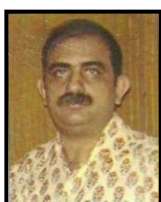
**Dr. Prem Ballabh Maithani**  
Atomic Minerals Directorate for  
Exploration and Research

*Dr. Prem Ballabh Maithani* of Atomic Minerals Directorate for Exploration and Research, Hyderabad, along with his teammates has carried out concept based regional exploration for uranium, rare metal and rare earth elements in various parts of the country. Shri Maithani is credited for planning and executing uranium exploration in Cuddapah Basin of Andhra Pradesh that resulted in addition of substantial amount of resources to the national inventory.



**Shri Mohan Babu Verma**  
Atomic Minerals Directorate for  
Exploration and Research

*Shri Mohan Babu Verma* of Atomic Minerals Directorate for Exploration and Research, Bengaluru, along with his teammates has carried out concept based regional exploration for uranium, rare metal and rare earth elements in various parts of the country. He was responsible for exploration of albitite type uranium mineralization in Sikar district and established estimated reserves of 1100 tonnes of uranium oxide in carbonaceous phyllite and limestone in Udaipur district.



**Shri Prakhar Kumar**  
Atomic Minerals Directorate for  
Exploration and Research

*Shri Prakhar Kumar* of Atomic Minerals Directorate for Exploration and Research, Jaipur, along with his teammates has carried out concept based regional exploration for uranium, rare metal and rare earth elements in various parts of the country. He is credited with the discovery of uranium mineralization in Guntur district, Andhra Pradesh from where 1240 tonnes of reserves have been proved.



**Shri Perakalapudi Nageshwara Rao**

Atomic Minerals Directorate for  
Exploration and Research

*Shri Perakalapudi Nageshwara Rao* of Atomic Minerals Directorate for Exploration and Research, Hyderabad, along with his teammates has carried out concept based regional exploration for uranium, rare metal and rare earth elements in various parts of the country. Shri Rao was also associated with the evaluation of Koppunuru uranium occurrence in the Guntur district, Andhra Pradesh from where 1240 tonnes of uranium resources have been established

## **Oil, Natural Gas and Gas Hydrates Discovery & Exploration**



**Dr. Malayath Aravindakshan Atmanand**

National Institute of Ocean  
Technology

*Dr. Malayath Aravindakshan Atmanand* of National Institute of Ocean Technology, Chennai along with his teammates has developed deep-sea technological devices for understanding the spatial extent of gas hydrate and other mineral resources in Indian continental margins. The teamwork led to development of two systems namely Remotely Operated Vehicle (ROV) and Autonomous Coring System (ACS) for 6000 and 3000 m depth of operation respectively. Remotely Operable Submersible (ROSUB 6000) had been designed to record the pathfinders for the exploration and is first of its kind in India.



**Dr. Gidugu Ananda Ramadass**

National Institute of Ocean  
Technology

*Dr. Gidugu Ananda Ramadass* of National Institute of Ocean Technology, Chennai along with his teammates has developed deep-sea technological devices for understanding the spatial extent of gas hydrate and other mineral resources in Indian continental margins. The teamwork led to development of two systems namely Remotely Operated Vehicle (ROV) and Autonomous Coring System (ACS) for 6000 and 3000 m depth of operation respectively. Remotely Operable Submersible (ROSUB 6000) had been designed to record the pathfinders for the exploration and is first of its kind in India.



**Dr. Sethuraman Ramesh**

National Institute of Ocean  
Technology

*Dr. Sethuraman Ramesh* of National Institute of Ocean Technology, Chennai along with his teammates has developed deep-sea technological devices for understanding the spatial extent of gas hydrate and other mineral resources in Indian continental margins. The teamwork led to development of two systems namely Remotely Operated Vehicle (ROV) and Autonomous Coring System (ACS) for 6000 and 3000 m depth of operation respectively. Remotely Operable Submersible (ROSUB 6000) had been designed to record the pathfinders for the exploration and is first of its kind in India.



**Shri Joseph Manecius Selvakumar**

National Institute of Ocean  
Technology

*Shri Joseph Manecius Selvakumar* of National Institute of Ocean Technology, Chennai along with his teammates has developed deep-sea technological devices for understanding the spatial extent of gas hydrate and other mineral resources in Indian continental margins. The teamwork led to development of two systems namely Remotely Operated Vehicle (ROV) and Autonomous Coring System (ACS) for 6000 and 3000 m depth of operation respectively. Remotely Operable Submersible (ROSUB 6000) had been designed to record the pathfinders for the exploration and is first of its kind in India.



**Shri Annamalai Subramanian**  
National Institute of Ocean  
Technology

*Shri Annamalai Subramanian* of National Institute of Ocean Technology, Chennai along with his teammates has developed deep-sea technological devices for understanding the spatial extent of gas hydrate and other mineral resources in Indian continental margins. The teamwork led to development of two systems namely Remotely Operated Vehicle (ROV) and Autonomous Coring System (ACS) for 6000 and 3000 m depth of operation respectively. Remotely Operable Submersible (ROSUB 6000) had been designed to record the pathfinders for the exploration and is first of its kind in India.



**Shri Dharmaraj Sathianarayanan**  
National Institute of Ocean  
Technology

*Shri Dharmaraj Sathianarayanan* of National Institute of Ocean Technology, Chennai along with his teammates has developed deep-sea technological devices for understanding the spatial extent of gas hydrate and other mineral resources in Indian continental margins. The teamwork led to development of two systems namely Remotely Operated Vehicle (ROV) and Autonomous Coring System (ACS) for 6000 and 3000 m depth of operation respectively. Remotely Operable Submersible (ROSUB 6000) had been designed to record the pathfinders for the exploration and is first of its kind in India.



**Shri Raju Ramesh**  
National Institute of Ocean  
Technology

*Shri Raju Ramesh* of National Institute of Ocean Technology, Chennai along with his teammates has developed deep-sea technological devices for understanding the spatial extent of gas hydrate and other mineral resources in Indian continental margins. The teamwork led to development of two systems namely Remotely Operated Vehicle (ROV) and Autonomous Coring System (ACS) for 6000 and 3000 m depth of operation respectively. Remotely Operable Submersible (ROSUB 6000) had been designed to record the pathfinders for the exploration and is first of its kind in India.



**Shri Gopalkrishnan Harikrishnan**  
National Institute of Ocean  
Technology

*Shri Gopalkrishnan Harikrishnan* of National Institute of Ocean Technology, Chennai along with his teammates has developed deep-sea technological devices for understanding the spatial extent of gas hydrate and other mineral resources in Indian continental margins. The teamwork led to development of two systems namely Remotely Operated Vehicle (ROV) and Autonomous Coring System (ACS) for 6000 and 3000 m depth of operation respectively. Remotely Operable Submersible (ROSUB 6000) had been designed to record the pathfinders for the exploration and is first of its kind in India.

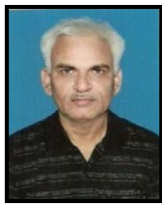
### **Groundwater Exploration**



**Dr. Dipankar Saha**  
Central Ground Water Board

*Dr. Dipankar Saha* of Central Ground Water Board, Patna has formulated sustainable groundwater management plan by integrating multi-parametric, thematic layers in a GIS environment enabling resource availability for future. He has made significant contribution in establishing the heterogeneous distribution and mobilization of arsenic in groundwater in the Gangetic Plains upstream of Garo-Rajmahal Gap. Dr. Saha was instrumental in making provisions for community-scale, arsenic free, drinking water supply in Bihar

## Mining Technology



**Dr. Kalendra Bahadur Singh**  
Central Institute of Mining & Fuel  
Research

*Dr. Kalendra Bahadur Singh* of Central Institute of Mining & Fuel Research, Dhanbad, has applied innovative techniques in the field of Rock Mechanics and Ground Control. He has conducted extensive subsidence investigations in different Indian Coalfields, which resulted into the development of subsidence prediction models. His studies have led towards extraction of huge resources of coal locked up below different surface features and structures.



**Dr. More Ramulu**  
Central Institute of Mining & Fuel  
Research

*Dr. More Ramulu* of Central Institute of Mining & Fuel Research, Nagpur, has carried out outstanding work in developing innovative techniques in the area of rock excavation and blasting engineering. His specialization in controlled blasting was successfully applied at underground coal mines of Western Coalfields Limited and Himalayan tunnels with significant improvement in performance.

## Stratigraphy, Structural Geology, Palaeontology, Geomorphology, Economic Geology and Geodynamics



**Dr. Manish Atmaprakash  
Mamtani**  
Indian Institute of Technology

*Dr. Manish Atmaprakash Mamtani* of Indian Institute of Technology, Kharagpur has done comprehensive research to resolve various problems in structural geology by applying an innovative combination of field work, micro-structural and AMS (anisotropy of magnetic susceptibility) studies. His work on the Godhra Granite was the first ever study in India that demonstrated the full potential of AMS studies in determining the internal fabric in plutonic rocks and establishing the time relationship between regional deformation and fabric development.



**Dr. Sarbani Patranabis Deb**  
Indian Statistical Institute

*Dr. Sarbani Patranabis Deb* of Indian Statistical Institute, Kolkata has made significant contribution on the stratigraphic analysis of Proterozoic basins of the South Indian craton. Her work involves detailed analyses of depositional systems, palaeogeography, stratigraphic evolution and basin tectonics. She has also made commendable work towards the understanding of the stratigraphic and tectonic evolution of the Mesoproterozoic Chattisgarh basin.

## Petrology and Geochemistry including Mineralogy, Geochronology and Isotope Geology



**Dr. Hetu Chandrakant Sheth**  
Indian Institute of Technology

*Dr. Hetu Chandrakant Sheth* of Indian Institute of Technology, Bombay has developed new concepts in volcanology and petrology through his research on the Deccan Traps and other flood basalts. Geochronological studies carried out by him have shown that Deccan volcanism was a protracted event with a total duration of at least 8-9 million years contrary to the earlier belief of its lasting for one or a half million years.

## Geophysics / Applied Geophysics



**Dr. Ravi Prakash Srivastava**  
National Geophysical Research  
Institute

*Dr. Ravi Prakash Srivastava* of National Geophysical Research Institute, Hyderabad has done outstanding work towards modeling of complex sub-surface structures using fractal geometry and its geophysical response. His most significant work involves development of a new technique to model hydrocarbon reservoirs, irregular sedimentary basins and aquifers.



**Dr. Shalivahan**  
Indian School of Mines University

*Dr. Shalivahan* of Indian School of Mines University, Dhanbad, has done extensive studies in interpretation of geophysical data for mineral, ground water, geothermal exploration and deep crustal studies. His contributions in the interpretation of resistivity, Induced Polarization (IP), Self Potential (SP), Electromagnetic (EM), Magnetic and Gravity methods have yielded significant results in mineral and ground water exploration.

## Geo-Environmental Studies



**Dr. Navin Juyal**  
Physical Research Laboratory

*Dr. Navin Juyal* of Physical Research Laboratory, Ahmedabad, has made significant contribution towards quantitative reconstruction of late Quaternary climate from desert margins of Gujarat and the Himalaya. He has innovatively used optical and radiocarbon dating techniques to reconstruct spatial and temporal changes in late Quaternary monsoon variability. Dr. Juyal's work provides the first records of northward shrinkage of the Thar Desert during the past 10 ka.

## Disaster Management



**Dr. Tummala Srinivasa Kumar**  
Indian National Centre for Ocean  
Information Services

*Dr. Tummala Srinivasa Kumar* of Indian National Centre for Ocean Information Services, Hyderabad and his team members were instrumental in establishing the state-of-the-art Tsunami Early Warning System (TEWS) that is recognized as one of the best in the world. His team was entrusted with the responsibility of developing the System after the devastating December 2004 tsunami and the task included the complete scientific understanding of tsunami, from its generation to propagation and inundation. The most challenging task was extremely small timelines for warning in case of a tsunami.



**Dr. B. Ajay Kumar**  
Indian National Centre for Ocean  
Information Services

*Dr. B. Ajay Kumar* of Indian National Centre for Ocean Information Services, Hyderabad and his team members were instrumental in establishing the state-of-the-art Tsunami Early Warning System (TEWS) that is recognized as one of the best in the world. His team was entrusted with the responsibility of developing the System after the devastating December 2004 tsunami and the task included the complete scientific understanding of tsunami, from its generation to propagation and inundation. The most challenging task was extremely small timelines for warning in case of a tsunami.



**Shri B.V. Satyanarayana**  
Indian National Centre for Ocean  
Information Services

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**Shri C. Patanjali Kumar**  
Indian National Centre for Ocean  
Information Services

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**Shri G. Suresh**  
India Meteorological Department

*Shri G. Suresh* of India Meteorological Department, New Delhi and his team members were instrumental in establishing the state-of-the-art Tsunami Early Warning System (TEWS) that is recognized as one of the best in the world. His team was entrusted with the responsibility of developing the System after the devastating December 2004 tsunami and the task included the complete scientific understanding of tsunami, from its generation to propagation and inundation. The most challenging task was extremely small timelines for warning in case of a tsunami.



**Ms. M. V. Sunanda**  
Indian National Centre for Ocean  
Information Services

*Ms. M. V. Sunanda* of Indian National Centre for Ocean Information Services, Hyderabad and his team members were instrumental in establishing the state-of-the-art Tsunami Early Warning System (TEWS) that is recognized as one of the best in the world. Her team was entrusted with the responsibility of developing the System after the devastating December 2004 tsunami and the task included the complete scientific understanding of tsunami, from its generation to propagation and inundation. The most challenging task was extremely small timelines for warning in case of a tsunami.



**Dr. M. V. Ramana Murthy**  
Indian National Institute of  
Ocean Technology

*Dr. M. V. Ramana Murthy* of Indian National Institute of Ocean Technology, Chennai and his team members were instrumental in establishing the state-of-the-art Tsunami Early Warning System (TEWS) that is recognized as one of the best in the world. His team was entrusted with the responsibility of developing the System after the devastating December 2004 tsunami and the task included the complete scientific understanding of tsunami, from its generation to propagation and inundation. The most challenging task was extremely small timelines for warning in case of a tsunami.



**Shri Tata Sudhakar**  
Indian National Institute of  
Ocean Technology

*Shri Tata Sudhakar* of Indian National Institute of Ocean Technology, Chennai and his team members were instrumental in establishing the state-of-the-art Tsunami Early Warning System (TEWS) that is recognized as one of the best in the world. His team was entrusted with the responsibility of developing the System after the devastating December 2004 tsunami and the task included the complete scientific understanding of tsunami, from its generation to propagation and inundation. The most challenging task was extremely small timelines for warning in case of a tsunami.

## Ocean Development



**Dr. S. Rajan**  
National Centre for Antarctic and  
Ocean Research



**Dr. John Kurian P**  
National Centre for Antarctic and  
Ocean Research



**Dr. Dhananjai Kumar Pandey**  
National Centre for Antarctic and  
Ocean Research



**Dr. B Ashalatha**  
National Geophysical Research  
Institute



**Dr. Naresh Kumar Thakur**  
National Geophysical Research  
Institute



**Dr. Pasupuleti Prasada Rao**  
National Geophysical Research  
Institute

**Dr. S Rajan** of National Centre for Antarctic and Ocean Research, Goa along with his multi-institutional team has successfully carried out the documentation task of delineating the outer limits of India's continental shelf for laying claims to an extended area beyond 200 nautical miles under the provisions of the United Nations Convention on the Law of the Sea (UNCLOS). He along with his team developed a comprehensive data acquisition protocol.

**Dr. John Kurian P** of National Centre for Antarctic and Ocean Research, Goa along with his multi-institutional team has successfully carried out the documentation task of delineating the outer limits of India's continental shelf for laying claims to an extended area beyond 200 nautical miles under the provisions of the United Nations Convention on the Law of the Sea (UNCLOS). He along with his team developed a comprehensive data acquisition protocol.

**Dr. Dhananjai Kumar Pandey** of National Centre for Antarctic and Ocean Research, Goa along with his multi-institutional team has successfully carried out the documentation task of delineating the outer limits of India's continental shelf for laying claims to an extended area beyond 200 nautical miles under the provisions of the United Nations Convention on the Law of the Sea (UNCLOS). He along with his team developed a comprehensive data acquisition protocol.

**Dr. B Ashalatha** of National Geophysical Research Institute, Hyderabad along with her multi-institutional team has successfully carried out the documentation task of delineating the outer limits of India's continental shelf for laying claims to an extended area beyond 200 nautical miles under the provisions of the United Nations Convention on the Law of the Sea (UNCLOS). She along with her team developed a comprehensive data acquisition protocol.

**Dr. Naresh Kumar Thakur** of National Geophysical Research Institute, Hyderabad along with his multi-institutional team has successfully carried out the documentation task of delineating the outer limits of India's continental shelf for laying claims to an extended area beyond 200 nautical miles under the provisions of the United Nations Convention on the Law of the Sea (UNCLOS). He along with his team developed a comprehensive data acquisition protocol.

**Dr. Pasupuleti Prasada Rao** of National Geophysical Research Institute, Hyderabad along with his multi-institutional team has successfully carried out the documentation task of delineating the outer limits of India's continental shelf for laying claims to an extended area beyond 200 nautical miles under the provisions of the United Nations Convention on the Law of the Sea (UNCLOS). He along with his team developed a comprehensive data acquisition protocol.



**Dr. Anil Kumar Chaubey**  
National Institute of  
Oceanography

*Dr. Anil Kumar Chaubey* of National Institute of Oceanography, Goa along with his multi-institutional team has successfully carried out the documentation task of delineating the outer limits of India's continental shelf for laying claims to an extended area beyond 200 nautical miles under the provisions of the United Nations Convention on the Law of the Sea (UNCLOS). He along with his team developed a comprehensive data acquisition protocol.



**Dr. Kolluru Sree Krishna**  
National Institute of  
Oceanography

*Dr. Kolluru Sree Krishna* of National Institute of Oceanography, Goa along with his multi-institutional team has successfully carried out the documentation task of delineating the outer limits of India's continental shelf for laying claims to an extended area beyond 200 nautical miles under the provisions of the United Nations Convention on the Law of the Sea (UNCLOS). He along with his team developed a comprehensive data acquisition protocol.



**Shri Gopal Chandra  
Bhattacharya**  
National Institute of  
Oceanography

*Shri Gopal Chandra Bhattacharya* of National Institute of Oceanography, Goa along with his multi-institutional team has successfully carried out the documentation task of delineating the outer limits of India's continental shelf for laying claims to an extended area beyond 200 nautical miles under the provisions of the United Nations Convention on the Law of the Sea (UNCLOS). He along with his team developed a comprehensive data acquisition protocol.

## Glaciology and Antarctic Research



**Shri Rajesh Asthana**  
Geological Survey of India

**Shri Rajesh Asthana** of Geological Survey of India, Faridabad has made significant contributions towards geoscientific expeditions and Antarctic research. He has been associated with Indian Antarctic Research for about two decades and has done outstanding studies in sedimentology and palaeo-climate. He designed and fabricated an indigenous coring device for core retrieval from Antarctic lakes that formed the basis of multi-disciplinary research on palaeo-climate in Antarctic environment.

## NATIONAL GEOSCIENCE AWARDS - 2009

### Coal, Lignite and Coal Bed Methane Discovery & Exploration



**Dr. Basudeb Datta**  
Geological Survey of India,

*Dr. Basudeb Datta* of Geological Survey of India, Kolkata and his team mates have carried out concept-oriented exploration for coal in the Birbhum Brahmani basin of Rajmahal Goldwana Master Basin and helped in identification of the Barakar Formation in the area covered by Rajmahal Traps and Tertiary sediments. This integrated exploration in the virgin area has established a total resource of 3500 million tonnes of power grade coal at shallow depth. The work has also opened up possibilities of further additional resource to the tune of 2000 million tonnes of coal in the extension area.



**Shri Debiprosad Chatterjee**  
Geological Survey of India

*Shri Debiprosad Chatterjee* of Geological Survey of India, Kolkata and his team mates have carried out concept-oriented exploration for coal in the Birbhum Brahmani basin of Rajmahal Goldwana Master Basin and helped in identification of the Barakar Formation in the area covered by Rajmahal Traps and Tertiary sediments. This integrated exploration in the virgin area has established a total resource of 3500 million tonnes of power grade coal at shallow depth. The work has also opened up possibilities of further additional resource to the tune of 2000 million tonnes of coal in the extension area.



**Shri Pradip Kumar Datta**  
Geological Survey of India

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**Shri R.G. Khankar**  
Geological Survey of India

*Shri R.G. Khankar* of Geological Survey of India, Kolkata and his team mates have carried out concept-oriented exploration for coal in the Birbhum Brahmani basin of Rajmahal Goldwana Master Basin and helped in identification of the Barakar Formation in the area covered by Rajmahal Traps and Tertiary sediments. This integrated exploration in the virgin area has established a total resource of 3500 million tonnes of power grade coal at shallow depth. The work has also opened up possibilities of further additional resource to the tune of 2000 million tonnes of coal in the extension area.



**Shri Saugata Datta**  
Geological Survey of India

*Shri Saugata Datta* of Geological Survey of India, Kolkata and his team mates have carried out concept-oriented exploration for coal in the Birbhum Brahmani basin of Rajmahal Goldwana Master Basin and helped in identification of the Barakar Formation in the area covered by Rajmahal Traps and Tertiary sediments. This integrated exploration in the virgin area has established a total resource of 3500 million tonnes of power grade coal at shallow depth. The work has also opened up possibilities of further additional resource to the tune of 2000 million tonnes of coal in the extension area.

## Groundwater Exploration



**Dr. D. Venkat Reddy**  
National Geophysical Research  
Institute

*Dr. D. Venkat Reddy* of National Geophysical Research Institute, Hyderabad has contributed significantly in the field of Groundwater solving different hydrological problems for the last 25 years using innovative tools like environmental isotopes method to estimate ground water recharge, hydrochemical tracers, and Carbon-14 dating. He has been instrumental in delineation of potential groundwater bearing fracture zones in hard rock terrains and assessment of percolation efficiencies of artificial recharge structures in different geological terrains.

## Mining Technology



**Dr. Promod Kumar Rajameny**  
Hindustan Zinc Limited

*Dr. Promod Kumar Rajameny* of Hindustan Zinc Limited, Jawar, Rajasthan has been associated in the mining industry for the last 30 years. He has developed expertise in Mass Blasting and in the field of rock mechanics. His various innovative techniques in the mining of ore at Zawarmala, Zawar Mines, has greatly benefited in the extraction of valuable minerals in mine pillars along with facilitation of ore exploration with sound mining techniques and designs.



**Shri Vinay Kumar Singh**  
Coal India Limited

*Shri Vinay Kumar Singh* of Coal India Limited, Singrauli, Madhya Pradesh has developed and introduced a number of technologies for safe and efficient exploitation of coal. He made blast designs for open cast mines to win the coal from underground and open cast mines simultaneously, standardization of guidelines on blast vibration damage threshold for the safety of surface and below ground structures, characterization of explosives and rock parameters for optimal explosives energy utilization in rock fragmentation.



**Shri Nirmal Chandra Jha**  
Coal India Limited

*Shri Nirmal Chandra Jha* of Coal India Limited, Kolkata has introduced new mining technologies in underground and open cast mining, which has led to reversal of the declining trend of coal production from underground mines by introducing of Shortwall Mining Technology, Highwall Mining Technology and increased number of Continuous Miner Technology in different coal mines of CIL.

## Mineral Beneficiation



**Dr. Surendra Kumar Biswal**  
Institute of Mineral & Materials  
Technology

*Dr. Surendra Kumar Biswal* of Institute of Mineral & Materials Technology, Bhubaneswar as carried out significant R&D work in the field of beneficiation of low grade minerals and ores and utilization of waste, during the past 10 years. He has carried out a number of fundamental as well as applied works related to Column Flootation to improve the design aspects for better performance in terms of quality and quantity for beneficiation of different types of ores/tailing

## **Stratigraphy, Structural Geology, Palaeontology, Geomorphology, Economic Geology and Geodynamics**



**Dr. Subir Sarkar**  
Jadavpur University

*Dr. Subir Sarkar* of Jadavpur University, Kolkata has carried out very significant work related to Precambrian sedimentology and has led an international group to unravel for the first time, the distinctiveness of Proterozoic Sequence Stratigraphy in contrast to its Phanerozoic counterparts, one of the most typical issues of Precambrian Sequence Stratigraphy.



**Dr. Jayant Kumar Tripathi**  
Jawaharlal Nehru University

*Dr. Jayant Kumar Tripathi* of Jawaharlal Nehru University, Delhi has worked on understanding the transformation of rocks into environmentally useful sediments through the process of weathering, transportation and deposition. He has established that fine grained sediments occurring on the Quartzite Delhi ridge are loessic deposits brought from the Thar desert by selective physical sorting by wind during hot arid climates.

## **Petrology and Geochemistry Including Mineralogy, Geochronology and Isotope Geology**



**Dr. Jyotiranjana Srichandan Ray**  
Physical Research Laboratory

*Dr. Jyotiranjana Srichandan Ray* of Physical Research Laboratory, Ahmedabad has made significant contribution in developing isotope dating methods, using multiple absolute and relative dating techniques using Ar-Ar, Rb-Sr, U-Pb & Sr isotope. His studies have helped in resolving many important chronological issues and controversies in Indian Geology. His landmark contribution of dating the volcanoclastic sediments and carbonates of the Vindhyan Supergroup, has helped in resolving a major scientific controversy of recent times.

## **Applied Geology**



**Dr. Anil Vishnupant Kulkarni**  
Indian Institute of Science

*Dr. Anil Vishnupant Kulkarni* of Indian Institute of Science, Bengaluru has done pioneering work in the development of satellite based remote sensing technique for snow and glacier studies in India. He has developed techniques, algorithms and models for glacier inventory, mass balance, snow and glacier melt run off, and assessment of flood from glacial lakes of Sutlej, Chenab, Dhauliganga and Tista River basins.

## **Geophysics / Applied Geophysics**



**Dr. Parmesh Banerjee**  
Nanyang Technical University

*Dr. Parmesh Banerjee* of Nanyang Technical University, Singapore has made significant contribution in generating substantial knowledge regarding the interactions between two active tectonic plates, either colliding (as in Himalaya), or subsiding (as in Andaman-Sumatra). These, along with his unique studies of gravity field over the Himalaya, led to better assessment of earthquake hazards in NW Himalaya as well as in Andaman and Sumatra regions. His other contribution comes from providing the most reliable measurement of India Tectonic Plate motion.



**Dr. M. Ravi Kumar**  
National Geophysical Research  
Institute

*Dr. M. Ravi Kumar* of National Geophysical Research Institute, Hyderabad has made significant contribution in investigating the lithospheric thickness of the Gondwana fragments which has conclusively brought out the relatively thin nature of the Indian shield region thereby resolving an outstanding geodynamic issue pertaining to the causative mechanism for the unique ‘fast drift of the Indian plate’ during Mesozoic time.

### **Geo-Environmental Studies**



**Dr. Sayed Masood Ahmad**  
National Geophysical Research  
Institute

*Dr. Sayed Masood Ahmad* of National Geophysical Research Institute, Hyderabad has generated several new climatic records from the North Indian Ocean and the Indonesian Seas, which are crucial in understanding past climate variability and their forcing mechanisms. He has established state-of-the-art laboratory facilities (viz. Isotope Ratio Mass Spectrometer, ICP-OES, T.O.C. etc.) for paleoclimatic research at the National Geophysical Research Institute.

### **Disaster Management**



**Dr. C. P. Rajendran**  
Indian Institute of Science

*Dr. C. P. Rajendran* of Indian Institute of Science, Bengaluru has contributed significantly to research in active tectonics, earthquake geology, paleoseismology, and tsunami geology in India. He has carried out collaborative work and cooperation on tsunami hazard, among various researchers from many countries (Chile, Australia, Thailand, Indonesia, Sri Lanka, Oman and Iran). This has led to a major accomplishment in the preparation of a probabilistic tsunami hazard assessment of the Indian Ocean nations.

## NATIONAL MINERAL AWARDS-2008

### Coal, Lignite and Coal Bed Methane Discovery & Exploration



**Shri Pradip Kumar Nanda**  
Geological Survey of India

*Shri Pradip Kumar Nanda* of Geological Survey of India, Kolkata has carried out concept based regional exploration for coal in the Talcher Coalfield of Orissa. He and his team members have successfully demarcated thick coal seams at moderately shallow depths with total coal resources of 5.35 billion tonnes in Saradhapur-Tribira and Jalatap areas of central Talcher Coalfield, of which 1.49 billion tonnes occurring within 300m depth



**Shri Biplab Kumar Chakraborty**  
Geological Survey of India

*Shri Biplab Kumar Chakraborty* of the Geological Survey of India, Kolkata has carried out concept based regional exploration for coal in the Talcher Coalfield of Orissa. He and his team members have successfully demarcated thick coal seams at moderately shallow depths with total coal resources of 5.35 billion tonnes in Saradhapur-Tribira and Jalatap areas of central Talcher Coalfield, of which 1.49 billion tonnes occurring within 300m depth.



**Shri Sajal Pal**  
Geological Survey of India

*Shri Sajal Pal* of the Geological Survey of India, Kolkata has carried out concept based regional exploration for coal in the Talcher Coalfield of Orissa. He and his team members have successfully demarcated thick coal seams at moderately shallow depths with total coal resources of 5.35 billion tonnes in Saradhapur-Tribira and Jalatap areas of central Talcher Coalfield, of which 1.49 billion tonnes occurring within 300m depth.



**Shri Satyanarayan Behera**  
Geological Survey of India

*Shri Satyanarayan Behera* of the Geological Survey of India, Kolkata has carried out concept based regional exploration for coal in the Talcher Coalfield of Orissa. He and his team members have successfully demarcated thick coal seams at moderately shallow depths with total coal resources of 5.35 billion tonnes in Saradhapur-Tribira and Jalatap areas of central Talcher Coalfield, of which 1.49 billion tonnes occurring within 300m depth.

## Oil, Natural Gas and Gas Hydrates Discovery & Exploration



**Professor Tarkeshwar Kumar**  
Indian School of Mines University

*Professor Tarkeshwar Kumar* of the Indian School of Mines University, Dhanbad, has made immense contributions towards the advancement of education in Petroleum Engineering and for research leading to enhanced recovery and increased productivity in the oil sector.

## Mining Technology



**Dr. Autar Krishen Raina**  
Central Institute of Mining & Fuel  
Research

*Dr. Autar Krishen Raina* of the Central Institute of Mining & Fuel Research, Nagpur, has made outstanding contributions in making blasting activity more safe and environment friendly in mining operations that has resulted in enhanced productivity in coal mines.



**Dr. Shaitan Singh Rathore**  
University of Technology &  
Engineering

*Dr. Shaitan Singh Rathore* of the University of Technology & Engineering, Udaipur, has carried out outstanding work in developing innovative techniques for dimensional stone mining sector resulting in enhanced productivity, reduction in waste generation and energy consumption.

## Stratigraphy, Structural Geology, Palaeontology, Geomorphology, Economic Geology and Geodynamics



**Dr. Joydip Mukhopadhyay**  
Presidency College

*Dr. Joydip Mukhopadhyay* of the Presidency College, Kolkata, has made contributions in economic geology particularly on the origin of iron and manganese deposits that would have implications in developing future exploration strategy for these deposits.



**Professor Tapas Kumar Biswal**  
Indian Institute of Technology

*Professor Tapas Kumar Biswal* of the Indian Institute of Technology, Mumbai, has made significant contributions on the understanding of the evolutionary history of the Indian subcontinent through his research on the Eastern Ghats mobile belt.

### **Petrology and Geochemistry Including Mineralogy, Geochronology and Isotope Geology**



**Dr. Pulak Sengupta**  
Jadavpur University

*Dr. Pulak Sengupta* of the Jadavpur University, Kolkata, has made fundamental contributions on the genesis of high grade metamorphic rocks.

### **Applied Geology**



**Dr. Sukanta Roy**  
National Geophysical Research  
Institute

*Dr. Sukanta Roy* of the National Geophysical Research Institute, Hyderabad, has made significant contributions towards better assessment of the geothermal energy potential of the country and developing strategies for its utilization.

### **Geophysics / Applied Geophysics**



**Dr. Ajai Manglik**  
National Geophysical Research  
Institute

*Dr. Ajai Manglik* of the National Geophysical Research Institute, Hyderabad, has made significant contributions in theoretical geophysics that has led towards a better understanding of the geological evolution of the Indian subcontinent



**Dr. Vishnubhotla Chakravarthi**  
National Geophysical Research  
Institute

*Dr. Vishnubhotla Chakravarthi* of the National Geophysical Research Institute, Hyderabad, has made significant contributions in experimental geophysics that have found wide application in hydrocarbon exploration and has resulted in identification of several potential areas in Gujarat and Central India.



**Dr. Om Prakash Mishra**  
Geological Survey of India

### **Disaster Management (Team Award)**

*Dr. Om Prakash Mishra* of the Geological Survey of India, Kolkata and his team has made significant contribution for developing a deep insight into the earthquake generating processes through geophysical studies. The public awareness campaigns organized by the team had been helpful in reducing panic and trauma associated with the natural disasters amongst the people of Andamans.



**Shri Gautam Kumar  
Chakraborty**  
Geological Survey of India

*Shri Gautam Kumar Chakraborty* of the Geological Survey of India, Kolkata and his team has made significant contribution for developing a deep insight into the earthquake generating processes through geophysical studies. The public awareness campaigns organized by the team had been helpful in reducing panic and trauma associated with the natural disasters amongst the people of Andamans.



**Dr. Om Prakash Singh**  
Geological Survey of India

*Dr. Om Prakash Singh*, Geological Survey of India, Kolkata and his team made significant contribution for developing a deep insight into the earthquake generating processes through geophysical studies. The public awareness campaigns organized by the team had been help in reducing panic and trauma associated with the natural disasters amongst the people of Andamans.

### **Disaster Management**



**Dr. Sridevi Jade**  
C-MMACS

*Dr. Sridevi Jade* of the Centre for Mathematical Modeling and Computer Simulation, Bangalore, has made seminal contributions in the propagation and understanding of global positioning system (GPS) technology related geo-scientific studies in India for earthquake hazard assessment.

## NATIONAL MINERAL AWARD – 2007

### Coal, Lignite and Coal Bed Methane Discovery & Exploration



**Shri P. Kumaraguru**  
Geological Survey of India

*Shri P. Kumaraguru* of the Geological Survey of India has carried out concept oriented exploration to discover lignite deposits in Mannargudi and Ramnad sub-basins of Tamilnadu. The basin analysis studies including interpretation of sub-surface, tectonic and geophysical data coupled with micro facies analysis and palaeotological data, led by him and his team members established 302 million tonnes of lignite deposits and a resource of 1172 million tonnes of lignite in southern and northern parts of the Mannargudi sub-basin.



**Shri K. Baskaran**  
Geological Survey of India

*Shri K. Baskaran* of the Geological Survey of India has carried out concept oriented exploration to discover lignite deposits in Mannargudi and Ramnad sub-basins of Tamilnadu. The basin analysis studies including interpretation of sub-surface, tectonic and geophysical data coupled with micro facies analysis and palaeotological data, led by him and his team members established 302 million tonnes of lignite deposits and a resource of 1172 million tonnes of lignite in southern and northern parts of the Mannargudi sub-basin.



**Dr. T.S. Giritharan**  
Geological Survey of India

*Dr. T. S. Giritharan*, of the Geological Survey of India has carried out concept oriented exploration to discover lignite deposits in Mannargudi and Ramnad sub-basins of Tamilnadu. The basin analysis studies including interpretation of sub-surface, tectonic and geophysical data coupled with micro facies analysis and palaeotological data, led by him and his team members established 302 million tonnes of lignite deposits and a resource of 1172 million tonnes of lignite in southern and northern parts of the Mannargudi sub-basin.



**Dr. A. Balukkarasu**  
Geological Survey of India

*Dr. A. Balukkarasu* of the Geological Survey of India has carried out concept oriented exploration to discover lignite deposits in Mannargudi and Ramnad sub-basins of Tamilnadu. The basin analysis studies including interpretation of sub-surface, tectonic and geophysical data coupled with micro facies analysis and palaeotological data, led by him and his team members established 302 million tonnes of lignite deposits and a resource of 1172 million tonnes of lignite in southern and northern parts of the Mannargudi sub-basin.

## Oil, Natural Gas and Gas Hydrates Discovery



**Shri Rajesh Kumar Srivatava**  
Oil & Natural Gas Corporation  
Limited

*Shri Rajesh Kumar Srivatava* of the Oil & Natural Gas Corporation Limited, Dehradun has carried out geological modeling of oil and gas fields of Mumbai-offshore, Assam Shelf, Bengal, Mahanadi and Andaman basins. The field techniques as well as geo-cellular modeling developed by him has lead to the discovery of oil and gas at Kalyanpur in Assam and gas in deep water blocks of Mahanadi. He has been instrumental in accreting more than 100 MMbl of oil plus oil equivalent gas in the extension areas of existing fields of Assam.

## Groundwater Exploration



**Dr. Nandipati Subba Rao**  
Andhra University

*Professor Nandipati Subba Rao* of the Andhra University, Hyderabad has carried out extensive hydrogeological and hydrogeochemical studies in the different parts of Andhra Pradesh. Through remote sensing techniques he has been useful in delineation of groundwater resources in the hard rock terrains. His work on various remedial measures to improve the groundwater quality in rural and urban areas of Guntur, Anantapur and Visakhapatnam districts has been of immense societal value.



**Dr. Shivendra Nath Rai**  
National Geophysical Research  
Institute

*Dr. Shivendra Nath Rai* of the National Geophysical Research Institute, Hyderabad has developed new mathematical models that have found application in ground water resource management. He has also made sustained efforts in the field of ground water exploration through geophysical surveys by locating potential zones within and below the Deccan Traps and in the Gondwana Formations in Maharashtra.

## Mining Technology



**Dr. Pradeep Kumar Singh**  
Central Mining & Fuel Research  
Institute

*Dr. Pradeep Kumar Singh* of the Central Mining & Fuel Research Institute, Dhanbad has carried out research on the stability of underground coal mines and related structures from blast induced vibrations. The predictive models developed by him have helped in enhancing the safety and productivity in coal mines.



**Sh. Ashok Kumar Singh**  
Central Mine Planning And  
Design Institute

*Dr. Ashok Kumar Singh* of the Central Mine Planning And Design Institute, Ranchi has been a pioneer in introducing several innovative techniques in the underground mining and promoting mechanization in open cast mines. His adoption of best practices in opencast mine layout with high degree of mechanization has led to successful implementation of Nigahi coal project in Singrauli coalfields for achieving higher coal production.

### **Mineral Beneficiation**



**Dr. Barada Kanta Mishra**  
Institute of Mineral & Materials  
Technology

*Dr. Barada Kanta Mishra* of the Institute of Mineral & Materials Technology, Bhubaneswar and his coworker Dr. Asim Kumar Mukherjee of the Tata Steel, Jamshedpur has done well acclaimed research in mineral engineering. Work done by them has found immense industrial application in improving the quality of coal and iron ores.



**Dr. Asim Kumar Mukherjee**  
Tata Steel

*Dr. Asim Kumar Mukherjee* of the Tata Steel, Jamshedpur and his coworker Dr. Barada Kanta Mishra of the Institute of Mineral & Materials Technology, Bhubaneswar has done well acclaimed research in mineral engineering. Work done by them has found immense industrial application in improving the quality of coal and iron ores.

### **Stratigraphy, Structural Geology, Palaeontology, Geomorphology, Economic Geology and Geodynamics**



**Professor Dilip Saha**  
Indian Statistical Institute

*Professor Dilip Saha* of the Indian Statistical Institute, Kolkata has worked on the theoretical and computational aspect of structural geology besides regional geological synthesis on various Purana basins of India that has thrown immense light on the basin evolution and inversion history. His research on the fabric and microstructures in shallow crustal granites has been helpful in gaining information on continental tectonics and constraining emplacement history.



**Professor Abhijit Bhattacharya**  
Indian Institute of Technology

### **Petrology and Geochemistry including Mineralogy, Geochronology and Isotope Geology**

*Professor Abhijit Bhattacharya* of the Indian Institute of Technology, Kharagpur has carried out outstanding studies on metamorphic petrology and magmatic evolution for constraining the massif anorthosite genesis as well as the nature of craton-mobile belt contact in Eastern India.



**Dr. Virendra Mani Tiwari**  
National Geophysical Research  
Institute

### **Geophysics / Applied Geophysics**

*Dr. Virendra Mani Tiwari* of the National Geophysical Research Institute, Hyderabad has carried out intensive gravity and magnetic studies on different parts of the Indian lithosphere. including southern Indian shield and the Himalaya. The plate tectonics model proposed by him for the Central Indian Suture zone and Aravalli- Delhi fold belt have been internationally recognized.



**Dr. K.A. Kamesh Raju**  
National Institute of  
Oceanography

*Dr. K. A. Kamesh Raju* of the National Institute of Oceanography, Goa has done innovative research in Marine Geophysics for obtaining a deeper insight into the morpho-tectonic evolution of the Central Indian Ocean Basin. His studies on the role of West Andaman Fault have provided useful information towards the understanding of the mechanisms involved in the earthquakes in the Andaman Sea region.



**Dr. Vinay Mohan Choubey**  
Wadia Institute of Himalayan  
Geology

### **Geo-Environmental Studies**

*Dr. Vinay Mohan Choubey* of the Wadia Institute of Himalayan Geology, Dehradun has undertaken studies to characterize the behavior of sub-surface radon migration in relation to various geo-environmental conditions in the Himalayan region. Radon emanation Studies carried out by him across landslide profiles helped in landslide hazard assessment and mitigation.



**Dr. Prantik Mandal**  
National Geophysical Research  
Institute

### **Disaster Management**

*Dr. Prantik Mandal* of the National Geophysical Research Institute, Hyderabad has carried out studies on the various mechanisms involved in the intraplate earthquakes occurring in India. His work on the seismic hazard assessment of Bhuj area and Koyna region by monitoring the aftershocks of region have been extremely useful in the earthquake disaster mitigation in this region.

## NATIONAL MINERAL AWARD – 2006

### Mineral Discovery & Exploration



**Shri Suresh Chander**  
Geological Survey of India

*Shri Suresh Chander* of the Geological Survey of India, Jaipur has carried out integrated surveys for gold and associated base metals on the basis of aero-geophysical anomalies in Sanjela-Manpur-Dugocha belt of Udaipur District, Rajasthan. He has been successful in locating new target areas for mineralization. His work has led to the estimation of reserves of 1.0 million tonnes of Gold ore at depths of 100 m in Dugocha Main and North Blocks with average of 2.07 ppm gold.

#### (Team Award)



**Dr. Soney Kurien P**  
Geological Survey of India

*Dr. Soney Kurien P* of the Geological Survey of India, Thiruvananthapuram and his coworkers have evolved and executed an exploration strategy that has led to estimation of 2.38 million tonnes gold ore resource (1.25g/t grade) at 0.5 ppm cut off which includes, 1.0 million tonnes (2.52g/t grade) at 1 ppm cut off and 0.26 million tonnes (6.48 g/t grade) at 3 ppm cut off in Lungtu-Parasi- Sindauri area of Ranchi district.



**Dr. Radha Nand Singh**  
Geological Survey of India

*Dr. Radha Nand Singh* of the Geological Survey of India, Patna and his coworkers have evolved and executed an exploration strategy that has led to estimation of 2.38 million tonnes gold ore resource (1.25g/t grade) at 0.5 ppm cut off which includes, 1.0 million tonnes (2.52g/t grade) at 1 ppm cut off and 0.26 million tonnes (6.48 g/t grade) at 3 ppm cut off in Lungtu- Parasi- Sindauri area of Ranchi district.



**Shri Shashi Ranjan**  
Geological Survey of India

*Shri Shashi Ranjan* of the Geological Survey of India, Patna and his coworkers have evolved and executed an exploration strategy that has led to estimation of 2.38 million tonnes gold ore resource (1.25g/t grade) at 0.5 ppm cut off which includes, 1.0 million tonnes (2.52g/t grade) at 1 ppm cut off and 0.26 million tonnes (6.48 g/t grade) at 3 ppm cut off in Lungtu- Parasi- Sindauri area of Ranchi district.



**Shri Radhika Ranjan Sharan**  
Geological Survey of India

*Shri Radhika Ranjan Sharan* of the Geological Survey of India, Patna and his coworkers have evolved and executed an exploration strategy that has led to estimation of 2.38 million tonnes gold ore resource (1.25g/t grade) at 0.5 ppm cut off which includes, 1.0 million tonnes (2.52g/t grade) at 1 ppm cut off and 0.26 million tonnes (6.48 g/t grade) at 3 ppm cut off in Lungtu-Parasi- Sindauri area of Ranchi district

### **Coal, Lignite and Coal Bed Methane Discovery & Exploration (Team Award)**



**Dr. Ashutosh Mondal**  
Geological Survey of India

*Dr. Ashutosh Mondal* of the Geological Survey of India, Kolkata and his teammates have made valuable addition to the National Coal Inventory by discovering about 400 million tons of superior grade non-coking coal resources at shallow depth in the Malachua, Panwari and Shahpur blocks of Sohagpur Coalfield of Madhya Pradesh. The most noteworthy aspect of this discovery is that about 129.24 million tons of these coal resources lie at the shallow depth and amenable to opencast mining.



**Dr. Manas Roy Chowdhury**  
Geological Survey of India

*Dr. Manas Roy Chowdhury* of the Geological Survey of India, Kolkata and his teammates have made valuable addition to the National Coal Inventory by discovering about 400 million tons of superior grade non-coking coal resources at shallow depth in the Malachua, Panwari and Shahpur blocks of Sohagpur Coalfield of Madhya Pradesh. The most noteworthy aspect of this discovery is that about 129.24 million tons of these coal resources lie at the shallow depth and amenable to opencast mining.



**Dr. Anjan Rai Choudhauri**  
Geological Survey of India

*Dr. Anjan Rai Choudhauri* of the Geological Survey of India, Kolkata and his teammates have made valuable addition to the National Coal Inventory by discovering about 400 million tons of superior grade non-coking coal resources at shallow depth in the Malachua, Panwari and Shahpur blocks of Sohagpur Coalfield of Madhya Pradesh. The most noteworthy aspect of this discovery is that about 129.24 million tons of these coal resources lie at the shallow depth and amenable to opencast mining.



**Shri Naresh Prasad Patel**  
Geological Survey of India,  
Kolkata

*Shri Naresh Prasad Patel* of the Geological Survey of India, Kolkata and his teammates have made valuable addition to the National Coal Inventory by discovering about 400 million tons of superior grade non-coking coal resources at shallow depth in the Malachua, Panwari and Shahpur blocks of Sohagpur Coalfield of Madhya Pradesh. The most noteworthy aspect of this discovery is that about 129.24 million tons of these coal resources lie at the shallow depth and amenable to opencast mining.



**Shri Subhasis Kabiraj**  
Geological Survey of India,  
Kolkata

*Shri Subhasis Kabiraj* of the Geological Survey of India, Kolkata and his teammates have made valuable addition to the National Coal Inventory by discovering about 400 million tons of superior grade non-coking coal resources at shallow depth in the Malachua, Panwari and Shahpur blocks of Sohagpur Coalfield of Madhya Pradesh. The most noteworthy aspect of this discovery is that about 129.24 million tons of these coal resources lie at the shallow depth and amenable to opencast mining.

### **Groundwater Exploration**



**Dr. Shakeel Ahmed**  
National Geophysical Research  
Institute, Hyderabad

*Dr. Shakeel Ahmed* of the National Geophysical Research Institute, Hyderabad has developed new methods of geostatistics utilizing easily available parameters for application in groundwater hydrology. He is internationally known for his skill in aquifer modelling and has established an advanced modelling laboratory at NGRI.

### **Mining Technology**



**Shri Ramendra Gupta**  
Uranium Corporation Of India Ltd

*Shri Ramendra Gupta* of the Uranium Corporation Of India Ltd., Jharkhand has made immense contribution in the field of deep and metal mining technology leading to increased productivity. He has successfully used his long experience in deep underground mines like Kolar for innovative applications in Jaduguguda and Narwapahar mines for achieving an increased supply of uranium to meet the immediate needs of nuclear power programme of the country.



**Shri Akhilesh Joshi**  
Hindustan Zinc Limited

*Shri Akhilesh Joshi* of the Hindustan Zinc Limited, Udaipur, during his association with Rampura Agucha Mine for past one decade has developed it to be the lowest cost producer for zinc and among one of the highly productive mines of the world. His dedicated efforts and technological skills have resulted in the enhancement of lead and zinc resources of the country by around 52 million tonnes.



**Dr. Ran Vijay Kumar Singh**  
Central Mining Research Institute

*Dr. Ran Vijay Kumar Singh* of the Central Mining Research Institute, Dhanbad has carried out outstanding research & development work for prevention and control of fire in underground and opencast coal mines. He has developed a fire protective coating material, fire resistant grout pack material for preventing spontaneous heating in coal mines and a mechanised device that can spray fire protective coating material up to a height of 20m and is also capable of coating a large surface area in a very short time.

### **Mineral Beneficiation**



**Dr. Swarna Prabhakar**  
National Metallurgical Laboratory

*Dr. Swarna Prabhakar* of the National Metallurgical Laboratory, Chennai along with his coworker has done pioneering work in developing fully automated laboratory model, pilot size and semi-commercial flotation columns for beneficiation of various ores and other minerals. These have been successfully used for beneficiation of lead-zinc ores of Dariba and Rampura-Agucha, copper-lead-zinc ore of Ambaji, fluorspar of Kadipani, gold ore of Kolar, low-grade iron ores of Goa and Karnataka, sillimanite of Orissa sands and low-grade limestone deposits of Salem.



**Dr. G. Bhaskar Raju**  
National Metallurgical Laboratory

*Dr. G. Bhaskar Raju* of the National Metallurgical Laboratory, Chennai along with his coworker has done pioneering work in developing fully automated laboratory model, pilot size and semi-commercial flotation columns for beneficiation of various ores and other minerals. These have been successfully used for beneficiation of lead-zinc ores of Dariba and Rampura-Agucha, copper-lead-zinc ore of Ambaji, fluorspar of Kadipani, gold ore of Kolar, low-grade iron ores of Goa and Karnataka, sillimanite of Orissa sands and low-grade limestone deposits of Salem.

## **Stratigraphy, Structural Geology, Palaeontology, Geomorphology, Economic Geology and Geodynamics**



**Dr. Talari Ramakrishnaiah Chetty**  
National Geophysical Research  
Institute

*Dr. Talari Ramakrishnaiah Chetty* of the National Geophysical Research Institute, Hyderabad has carried out extensive research by combining field geology and geophysics with modern techniques for obtaining a better understanding of the Precambrian structural and geodynamic processes. His studies on the Cauvery Shear Zone System, Eastern Ghats Mobile Belt and the Southern granulite terrain has provided useful information for the reconstruction models of Rodinia and Gondwana Supercontinents.

## **Petrology, Geochemistry Including Mineralogy, Geochronology and Isotope Geology**



**Dr. Anil Kumar**  
National Geophysical Research  
Institute

*Dr. Anil Kumar*, Scientist of the National Geophysical Research Institute, Hyderabad is credited with developing a vast geochronological knowledge base and providing the first precise dating of Sevathur carbonatite (770±20 Ma) and another much older carbonatite (1990 Ma) at Hogenakal besides proposing different mantle compositions for these two. Dr. Kumar's work on precise dating of the primitive Piplia Kalan meteorite at 4.570±0.019 Ga is also widely recognized.

## **Applied Geology**



**Professor T. N. Singh**  
Indian Institute Of Technology

*Professor T. N. Singh* of the Indian Institute Of Technology, Mumbai has done extensive research in the field of engineering geology, rock mechanics and environmental geotechnology. He is credited for developing instrumentation for large underground excavations made during the construction of hydroelectric power projects in difficult terrains of Himalaya and carrying out pioneering research on various aspects of rock blasting.

## **Geophysics / Applied Geophysics**



**Dr. Hari Venkata Ram Babu**  
National Geophysical Research  
Institute

*Dr. Hari Venkata Ram Babu* of the National Geophysical Research Institute, Hyderabad has done extensive studies on the interpretation of regional gravity and aeromagnetic data over various parts of India including Gadarwara in the Vindhyan basin that has led to the identification of sulphide mineralization, Kalyandurg area that resulted in discovery of a few more kimberlites besides locating deep-seated uranium deposits in the Vindhyan basin

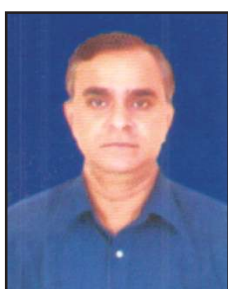
## Ocean Development



**Dr. Ram Krishna Tiwari**  
National Geophysical Research  
Institute

*Dr. Ram Krishna Tiwari* of the National Geophysical Research Institute, Hyderabad has done outstanding research on global coupled earth system processes utilizing latest technology including spectral analyses and non-linear dynamical system theory. His work has enhanced our understanding on the the issues of global changes and the climatic variability

## Geo-Information System



**Dr. Bishwajit Chakraborty**  
National Institute Of  
Oceanography

*Dr. Bishwajit Chakraborty* of the National Institute Of Oceanography, Goa has done outstanding work in development of software packages for application in marine geology. The Artificial Neural Network (ANN) method developed by him is useful in quick demarcation of the seafloor sediment type.

## NATIONAL MINERAL AWARD – 2005

### Mineral Discovery and Exploration

#### (Team Award)



**Dr. Kameswara Rao Tadicherla**  
Geological Survey of India

*Dr. Kameswara Rao Tadicherla* the Geological Survey of India, Hyderabad along with his team members has carried out invigorative search with a conceptual approach and was successful in locating diamondiferous kimberlite pipes in Kurnool and Anantapur districts of Andhra Pradesh. The Timmasamudram kimberlite pipe (TK-4) located by his team is of immense economic significance with recovery of hundred percent gem quality diamonds.



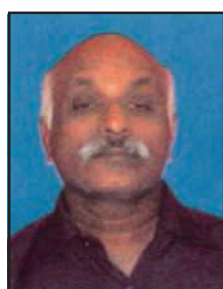
**Shri V. Srinivas Chowdhary**  
Geological Survey of India

*Shri V. Srinivas Chowdhary* of the of the Geological Survey of India, Hyderabad along with his team members has carried out invigorative search with a conceptual approach and was successful in locating diamondiferous kimberlite pipes in Kurnool and Anantapur districts of Andhra Pradesh. The Timmasamudram kimberlite pipe (TK-4) located by his team is of immense economic significance with recovery of hundred percent gem quality diamonds.



**Shri M. Sridhar**  
Geological Survey of India

*Shri M. Sridhar* of the Geological Survey of India, Hyderabad along with his team members has carried out invigorative search with a conceptual approach and was successful in locating diamondiferous kimberlite pipes in Kurnool and Anantapur districts of Andhra Pradesh. The Timmasamudram kimberlite pipe (TK-4) located by his team is of immense economic significance with recovery of hundred percent gem quality diamonds.



**Shri Nalabolu Suryanarayana Reddy**  
Geological Survey of India

*Shri Nalabolu Suryanarayana Reddy* of the Geological Survey of India, Hyderabad along with his team members has carried out invigorative search with a conceptual approach and was successful in locating diamondiferous kimberlite pipes in Kurnool and Anantapur districts of Andhra Pradesh. The Timmasamudram kimberlite pipe (TK-4) located by his team is of immense economic significance with recovery of hundred percent gem quality diamonds.



**Shri Krishan Kant Sinha**  
Geological Survey of India

*Shri Krishan Kant Sinha* of the Geological Survey of India, Hyderabad along with his team members has carried out invigorative search with a conceptual approach and was successful in locating diamondiferous kimberlite pipes in Kurnool and Anantapur districts of Andhra Pradesh. The Timmasamudram kimberlite pipe (TK-4) located by his team is of immense economic significance with recovery of hundred percent gem quality diamonds.

### **Mineral Exploration (Team Award)**



**Dr. Surendra Singh Garhia**  
Geological Survey of India

*Dr. Surendra Singh Garhia* of the Geological Survey of India, Jaipur along with his co-workers has made dedicated efforts in gold exploration activities in Rajasthan and have established gold reserves of 40.49 million tonness in Bhukia gold prospect from surface to 150 m vertical depth with 2.02 ppm average gold content containing 81.58 tons gold metal at 0.5 ppm cut-off grade.



**Dr. Dipendu Bhushan Guha**  
Geological Survey of India

*Dr. Dipendu Bhushan Guha* of the Geological Survey of India, Jaipur along with his co-workers has made dedicated efforts in gold exploration activities in Rajasthan and have established gold reserves of 40.49 million tonness in Bhukia gold prospect from surface to 150 m vertical depth with 2.02 ppm average gold content containing 81.58 tons gold metal at 0.5 ppm cut-off grade.



**Shri Ram Lal Jat**  
Geological Survey of India

*Shri Ram Lal Jat* of the Geological Survey of India, Jaipur along with his co-workers has made dedicated efforts in gold exploration activities in Rajasthan and have established gold reserves of 40.49 million tonness in Bhukia gold prospect from surface to 150 m vertical depth with 2.02 ppm average gold content containing 81.58 tons gold metal at 0.5 ppm cut-off grade.

## Mining Technology



**Dr. Pijush Pal Roy**  
Central Mining & Fuel Research  
Institute

*Dr. Pijush Pal Roy* of the Central Mining Research Institute, Dhanbad, has carried out outstanding work on conduction of eco-friendly blasting operations with conventional blasting accessories and non-electric initiating devices for enhanced production and productivity.

## Mineral Beneficiation



**Dr. Raghavan Pattathil**  
Regional Research Laboratory

*Dr. Raghavan Pattathil* of the Regional Research Laboratory, Thiruananthapuram, has made significant contribution in generating knowledge on the floatation separation of impurities from China Clay besides beneficiation of other minerals such as ilmenite and silica sand.

## Stratigraphy, Structural Geology, Palaeontology, Geomorphology, Economic Geology and Geodynamics



**Professor Biswajit Mishra**  
Indian Institute Technology

*Professor Biswajit Mishra* of the Indian Institute of Technology, Kharagpur, has made an exhaustive research in theoretical and experimental sulfide mineralogy. His studies have provided new scientific rationale for genesis of diverse ore deposits.

## Stratigraphy, Structural Geology, Palaeontology, Geomorphology, Economic Geology and Geodynamics (Shared Award)



**Professor Hari Bahadur  
Srivastava**  
Indian Institute of Technology

*Professor Hari Bahadur Srivastava* of the Banaras Hindu University, Varanasi has evolved conceptual models on the process of lithospheric deformation as a result of collision of Indian plate with Asian plate providing a critical insight into the geodynamics of Himalayas.



**Dr. Rohtash Kumar**  
Wadia Institute of Himalayan  
Geology

*Dr. Rohtash Kumar* of the Wadia Institute of Himalayan Geology, Dehradun, along with his team members has developed the multi-technique integrated approach to resolve the significant problems in the understanding of the Late Neogene tectonic and climatic evolution of the Himalayan Foreland Basin. The research work by his team is of great significance in socio-economic planning and developmental aspects of the Himalayan region.



**Dr. Sumit K. Ghosh**  
Wadia Institute of Himalayan  
Geology

*Dr. Sumit K. Ghosh*, Scientist- E of the Wadia Institute of Himalayan Geology, Dehradun, along with his team members has developed the multi-technique integrated approach to resolve the significant problems in the understanding of the Late Neogene tectonic and climatic evolution of the Himalayan Foreland Basin. The research work by his team is of great significance in socio-economic planning and developmental aspects of the Himalayan region.



**Dr. Satish J. Sangode**  
Wadia Institute of Himalayan  
Geology

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### **Applied Geology**



**Dr. Shailesh Nayak**  
Indian Space Research  
Organisation

*Dr. Shailesh Nayak* of the Indian Space Research Organisation, Ahmedabad, has done extensive work in the development of techniques and algorithms using Indian Remote Sensing (IRS) satellite data for the coastal zone management and sustainable use of marine living resources. GIS-based models developed by him are now being used for identifying vulnerable and environmentally sensitive areas besides the sites for aquaculture and industries.

## Geophysics / Applied Geophysics



**Dr. N. Sundararajan**  
Osmania University

*Dr. N. Sundararajan* of the Osmania University, Hyderabad has done outstanding research in designing tools and techniques for processing and interpretation of geophysical data. The “Sundararajan Transform” developed by him paves way for interpretation of potential field data when the conventional method fails to yield a viable solution..

## Geochemistry as Applied to Earth Sciences, Geochronology, Isotope Geology



**Dr. N.V. Chalapathi Rao**  
Indian Bureau of Mines

*Dr. N.V. Chalapathi Rao* of the Indian Bureau of Mines, Nagpur, has carried out extensive research work leading to the recognition and genesis of the kimberlites in southern India and within the Eastern Ghat mobile belt. The Sr and Nd isotopic studies undertaken by Dr. Rao have shown the existence of an anomalously enriched mantle beneath the Cuddapah basin and its northeastern margin. He also explained, India’s most celebrated diamondiferous ultramafic pipe at Majhgawan in Panna area to be a transitional variety.

## Environmental Geosciences and Management Studies



**Dr. Govind Joseph Chakrapani**  
Indian Institute of Technology

*Dr. Govind Joseph Chakrapani* of the Indian Institute of Technology, Roorkee, has done outstanding research on the rivers and lake systems of India through sediment and chemical mass balance, heavy metals fractionation and radioisotopic signatures. Dr. Chakrapani related the Himalayan uplift with the osmium isotopic compositions in the oceans through geochemical models. He reported the strontium isotopic compositions and dissolved trace elements in Himalayan lakes establishing their toxic potential.

## Disaster Management



**Dr. Imtiaz Ahmed Parvez**  
C-MMACS

*Dr. Imtiaz Ahmed Parvez* of the Centre for Mathematical Modelling and Computer Simulation, Bangalore, has done pioneering work on the probabilistic assessment of earthquake hazard. He has used his models for the Indian subcontinent, North-East Indian Peninsula and Hindukush region and defined the probability of occurrences of the future earthquake during a specified interval of time.

## Ocean Development



**Dr. Abhey Ram Bansal**  
National Geophysical Research  
Institute

*Dr. Abhey Ram Bansal* of the National Geophysical Research Institute, Hyderabad, has been instrumental in the derivation of a high-resolution, free air gravity data for Indian Ocean from the geodetic mission of ERS1 and GEOSAT. This data set has been used in terms of isostatic compensation of submarine features in the Indian Ocean and their geodynamical implications.

## Studies on Oil & Natural Gas Discovery, Exploration



**Shri Lehmbhar Singh**  
Oil&Natural Gas Corporation Ltd.

*Shri Lehmbhar Singh* of the Oil & Natural Gas Corporation Ltd., Ahmedabad, has put in dedicated efforts resulting into a phenomenal rise of 20% in oil production from Ahmedabad Asset of ONGC. He has also been instrumental in the discovery of three new oil fields namely Nambar, Safrai and Panidhing in the Eastern region.



**Dr. Kalachand Sain**  
Oil & Natural Gas Corporation

*Dr. Kalachand Sain* of the National Geophysical Research Institute, Hyderabad has made valuable contribution through investigations of gas hydrates along the continental margins of India and imaging Mesozoic sediments below basalt cover in Western India. His research includes delineation of ~200-350 m thick 'free-gas' zone beneath ~160 m thick hydrated sediments in the Arabian Sea besides gas-hydrate bearing structure in the western offshore (Kerala-Konkan basin) of India.

## NATIONAL MINERAL AWARD – 2004

### Mineral Discovery



**Dr. R.K. Sharma**  
Geological Survey of India

*Dr. R.K. Sharma* of the Geological Survey of India, Jaipur, has located for the first time a gold bearing Copper deposit in a new geological setting in Dausa district of Rajasthan in the Archaean basement rocks. This finding would contribute additional reserves of about 4 million tonnes of copper with average copper content of about 1.08% along with average gold concentration of 0.8 ppm.

### Mining Technology



**Dr. Hindupur Srinivas Venkatesh**  
National Institute of Rock  
Mechanics

*Dr. Hindupur Srinivas Venkatesh* of the National Institute of Rock Mechanics, Karnataka, has made significant contribution in the field of mining technology through his innovative research in excavation and controlled rock blasting for mining and civil engineering projects.



**Dr. Jagdish Kumar Mohnot**  
Central Mining Research Institute

*Dr. Jagdish Kumar Mohnot* of the Central Mining Research Institute, Roorkee, has made significant contribution in the field of mining technology by developing a new mathematical mine planning model which helped in quick and economic evaluation of mining ventures.

### Mineral Beneficiation



**Dr. Swapan Kumar Pan**  
Steel Authority of India Limited

*Dr. Swapan Kumar Pan* of the Steel Authority of India Limited, Ranchi, along with his teammate, has developed an expertise in mineral beneficiation for upgradation of iron ore through application of innovative technology. The work carried out by the team has augmented the recovery of fines from the waste and their enrichment from 55% to 64% iron content.



**Dr, Manish Jain**  
Steel Authority of India Limited

*Dr. Manish Jain* of the Steel Authority of India Limited, Ranchi, along with his teammate, has developed an expertise in mineral beneficiation for upgradation of iron ore through application of innovative technology. The work carried out by the team has augmented the recovery of fines from the waste and their enrichment from 55% to 64% iron content.

### **Geoinformation System**



**Shri P.K. Mittal**  
Oil & Natural Gas Corporation  
Limited

*Shri P.K. Mittal* of the Oil & Natural Gas Corporation Limited, Dehradun, has made remarkable contribution in the field of geo-information system through development of a number of softwares applicable to oil exploration and geological mapping. These include a software package for reserve estimation for oil and gas, computer programme for processing marine gravity-magnetic data and a new algorithm for mis-tie adjustments. This method has been accepted internationally and is widely used in India and abroad.

### **Geology : Stratigraphy, Structural Geology**



**Professor Harendra Nath  
Bhattacharya**  
Presidency College

*Professor Harendra Nath Bhattacharya* of the Presidency College, Kolkata has carried out brilliant studies on the evolutionary models of the Damodar Valley coal basin, Agnigundala Sulphide mineralization in the Cuddapah basin, banded-iron-formation hosted iron ores of Chitradurga in Karnataka and lead-zinc sulphide mineralization at Zawar in Rajasthan studies have led to understanding the genetic aspects these deposits.



**Dr. Ashok Kumar Dubey**  
Wadia Institute of Himalayan  
Geology

*Dr. Ashok Kumar Dubey* of the Wadia Institute of Himalayan Geology, Dehradun has made significant contribution in the field of structural geology that has helped in refining the structural evolution of Himalayas. Dr. Dubey's experimental work on the deformation patterns has also led to a better understanding of many tectonic features of the Himalayas.

## Applied Geology



**Dr. R. K. Goel**

Central Mining Research Institute

*Dr. R. K. Goel* of the Central Mining Research Institute has made significant contribution in the field of engineering geology. His work in the area of tunneling and underground space technology has been outstanding. He has proposed new user-friendly and globally acclaimed concepts and correlations in tunnel mechanics. He has patented and marketed two geotechnical instruments.



**Dr. Ahsan Absar**

Geological Survey of India

*Dr. Ahsan Absar* of the Geological Survey of India, Shillong, has made significant contribution in the field of geothermal exploration. His conceptual work on numerous geothermal field of Himalayan region in Jammu and Kashmir, Himachal Pradesh, Uttranchal and Haryana has been successfully utilized in formulation of genetic models of geothermal systems and renewable energy development programmes.

## Geophysics / Applied Geophysics



**Dr. Shyam Sunder Rai**

National Geophysical Research  
Institute

*Dr. Shyam Sunder Rai* of the National Geophysical Research Institute, Hyderabad, has made valuable contribution in the fields of seismology and geomagnetism by modeling of geophysical data to decipher the crust and mantle structure of India. He is also credited with providing the first seismological evidence of plate tectonics during early Achaean

## Ocean Development : Oceanography, Antarctic Research, Marine Geology (Team Award)



**Dr. Sharadindu Mukerji**

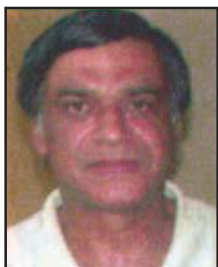
Geological Survey of India

*Dr. Sharadindu Mukerji* of the Geological Survey of India, Faridabad, along with his teammates, has made valuable contribution in the field of Antarctic geology mapping of Gruber, Payer and Weyprecht mountains of Antarctica. His work on the glaciology of the Antarctic sheet near Schirmacher Oasis and Filchner Ice Shelf is widely acclaimed.



**Shri Mervin J. D'Souza**  
Geological Survey of India

*Shri Mervin J. D'Souza* of the Geological Survey of India, Faridabad, along with his teammates, has made valuable contribution in the field of Antarctic geology by carrying out detailed petrological studies in various regions of central Dronning Maud Land of East Antarctica.



**Shri Arun Chaturvedi**  
Geological Survey of India

*Shri Arun Chaturvedi* of the Geological Survey of India, Faridabad, along with his teammates, has made valuable contribution in the field of Antarctic glaciology and paleoclimatic studies through his participation in five Antarctic expeditions. The thermal profiling of glaciers initiated by him has provided useful information on global warming.



**Shri Mirza Javed Beg**  
Geological Survey of India

*Shri Mirza Javed Beg* of the Geological Survey of India, Faridabad, along with his teammates, has made valuable contribution in the field of Antarctic glaciology including collection of extensive data on the accumulation/ablation and fluctuation of the continental ice margin in the Schirmacher Oasis that has implications on the understanding of the long term climatic changes.

### **Coal & Lignite Exploration & Discovery (Team Award)**



**Shri Naresh Nautiyal**  
Mineral Exploration Corp. Ltd.

*Shri Naresh Nautiyal* of the Mineral Exploration Corporation Limited, Nagpur, along with his teammates has successfully planned the exploration programme in the sand covered Riri block of Bikaner to establish 224 million tonnes of lignite resources at shallow depths of 93 to 168 m with the thickness of lignite horizons varying between 2 to 54 meters.



**Shri Dinesh Chandra Shah**  
Mineral Exploration Corp. Ltd.

*Shri Dinesh Chandra Shah*, Manager (Geology) of the Mineral Exploration Corporation Limited, Nagpur, along with his teammates has successfully planned the exploration programme in the sand covered Riri block of Bikaner to establish 224 million tonnes of lignite resources at shallow depths of 93 to 168 m with the thickness of lignite horizons varying between 2 to 54 meters.



**Shri Rakesh Kumar Jain**  
Mineral Exploration Corp. Ltd.



**Dr. Jayant Sharma**  
Mineral Exploration Corp. Ltd.



**Shri Kripa Shankar Prasad**  
Mineral Exploration Corp. Ltd.



**Shri K.K.S.R.K.S. Sai**  
Mineral Exploration Corp. Ltd.



**Shri V.S.V. Prasad**  
Oil and Natural Gas Corp. Ltd.

*Shri Rakesh Kumar Jain* of the Mineral Exploration Corporation Limited, Nagpur, along with his teammates has successfully planned the exploration programme in the sand covered Riri block of Bikaner to establish 224 million tonnes of lignite resources at shallow depths of 93 to 168 m with the thickness of lignite horizons varying between 2 to 54 meters.

*Dr. Jayant Sharma* of the Mineral Exploration Corporation Limited, Nagpur, along with his teammates has successfully planned the exploration programme in the sand covered Riri block of Bikaner to establish 224 million tonnes of lignite resources at shallow depths of 93 to 168 m with the thickness of lignite horizons varying between 2 to 54 meters.

*Shri Kripa Shankar Prasad* of the Mineral Exploration Corporation Limited, Nagpur, along with his teammates has successfully planned the exploration programme in the sand covered Riri block of Bikaner to establish 224 million tonnes of lignite resources at shallow depths of 93 to 168 m with the thickness of lignite horizons varying between 2 to 54 meters.

*Shri K.K.S.R.K.S. Sai* of the Mineral Exploration Corporation Limited, Nagpur, along with his teammates has successfully planned the exploration programme in the sand covered Riri block of Bikaner to establish 224 million tonnes of lignite resources at shallow depths of 93 to 168 m with the thickness of lignite horizons varying between 2 to 54 meters.

### **Oil & Natural Gas Discover & Exploration**

*Shri V.S.V. Prasad* of the Oil and Natural Gas Corporation Limited, Chennai has made valuable contribution in the field of oil exploration. He has developed an expertise in the integrated interpretation of 2D/3D seismic data of different basins in India, which has been successfully utilized for risk reduction in many projects. He had been instrumental in identification of a number of future prospects in various basins of India including G-4 (KG Basin), Endamuru, B-28 and Changmaigaon that have led to the augmentation of reserves.

## NATIONAL MINERAL AWARD – 2003

### Mineral Discovery of Economic and/or Strategic Importance (Team Award)



**Shri Ashim Kumar Saha**  
Geological Survey of India

*Shri Ashim Kumar Saha* of the Geological Survey of India, Nagpur along with his teammate, has made significant contribution in discovery of Platinum Group of Elements (PGE) in Sakoli Fold Belt, Maharashtra. The work carried out by the team has helped in understanding the complex geological aspects of PGE - Gold - Copper - Uranium - Thorium mineralization in this Belt.



**Shri Kanhu Charan Mahapatra**  
Geological Survey of India

*Shri Kanhu Charan Mahapatra* of the Geological Survey of India, along with his teammate, has made significant contribution in discovery of Platinum Group of Elements (PGE) in Sakoli Fold Belt, Maharashtra. The work carried out by the team has helped in understanding the complex geological aspects of PGE - Gold - Copper - Uranium - Thorium mineralization in this Belt.

### Mineral Exploartion (Team Award)



**Shri Ashish Kumar Ghosh Roy**  
Geological Survey of India

*Shri Ashish Kumar Ghosh Roy* of the Geological Survey of India, along with his teammates, has successfully carrying out exploration for pollucite, the principal ore of rare metal cesium and associated rare metals in the Purulia district of West Bengal. Exploration work has estimated a reserve of total cesium metal content of 840,000 kg at 0.3% cut off



**Shri Pradip Sarkar**  
Geological Survey of India

*Shri Pradip Sarkar* of the Geological Survey of India, of the Geological Survey of India, along with his teammates, has successfully carrying out exploration for pollucite, the principal ore of rare metal cesium and associated rare metals in the Purulia district of West Bengal. Exploration work has estimated a reserve of total cesium metal content of 840,000 kg at 0.3% cut off



**Shri Krishna Chandra  
Bandyopadhyay**  
Geological Survey of India

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**Shri Ravindra Kishore Prasad**  
Geological Survey of India

*Shri Ravindra Kishore Prasad* of the Geological Survey of India, along with his teammates, has successfully carrying out exploration for pollucite, the principal ore of rare metal cesium and associated rare metals in the Purulia district of West Bengal. Exploration work has estimated a reserve of total cesium metal content of 840,000 kg at 0.3% cut off



**Shri Subrata Sarkar**  
Geological Survey of India

*Shri Subrata Sarkar* of the Geological Survey of India, along with his teammates, has successfully carrying out exploration for pollucite, the principal ore of rare metal cesium and associated rare metals in the Purulia district of West Bengal. Exploration work has estimated a reserve of total cesium metal content of 840,000 kg at 0.3% cut off



**Dr. Sandip Kumar Som**  
Geological Survey of India

*Dr. Sandip Kumar Som* of the Geological Survey of India, along with his teammates, has successfully carrying out exploration for pollucite, the principal ore of rare metal cesium and associated rare metals in the Purulia district of West Bengal. Exploration work has estimated a reserve of total cesium metal content of 840,000 kg at 0.3% cut off



**Shri Bhupendra Singh**  
Geological Survey of India

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### **Mineral Beneficiation, Project Development and Planning Leading to Exploitation of Mineral Resources**



**Shri Shyamal Bhattacharya**  
Oil & Natural Gas Corp. Ltd.

*Shri Shyamal Bhattacharya* of the Oil and Natural Gas Corporation Limited has made significant contributions in exploitation of hydrocarbons through adaptation of state-of-the-art technology and emerging concepts of reservoir engineering.

### **Mining Technology**



**Dr. Shri Nath Wahy**  
R.K. Marble Pvt. Limited

*Dr. Shri Nath Wahy* the R.K. Marble Pvt. Ltd., Udaipur has made significant contributions in the field of mining technology by developing innovative techniques for the dimensional stone industry leading to substantial increase in production and reduction in waste generation



**Shri Satish Chand Agarwal,**  
Associated Stone Industries Ltd,

*Shri Satish Chand Agarwal* of the Associated Stone Industries Ltd., Ramganjmandi, Rajasthan, has made valuable contributions in the field of mining technology by developing innovative technologies for insitu cutting and sizing of Kotah stone at the quarry floor with the help of indigenously developed machines resulting in considerable increase in production.

**Development, Structuring and Implementation  
of Information System  
(Team Award)**



**Dr. Ashesh Siawal**  
Oil and Natural Gas  
Corporation Ltd

*Dr. Ashesh Siawal* of the Oil and Natural Gas Corporation Ltd., along with his co-workers has compiled a new “Tectonic Map of India” that would be helpful in generating new exploration concepts and priorities for exploration of hydrocarbons. This map would provide a better understanding on the evolution of Indian landmass including various sedimentary basins.



**Shri Sanjay Baveja**  
Oil and Natural Gas  
Corporation Ltd.

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**Shri Anil Kumar Kaul**  
Oil and Natural Gas  
Corporation Ltd.

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**Geology : Stratigraphy, Structural Geology, Tectonics  
Petrology, Paleontology, Mineralogy, Seismotectonics,  
Remote Sensing**



**Dr. Ashok kumar Singhvi**  
Physical Research Laboratory

*Dr. Ashok kumar Singhvi* of the Physical Research Laboratory, Ahmedabad has made significant contributions in the field of Quaternary stratigraphy and climatology by establishing luminescence dating technique in India. He has applied innovatively applied this technique for obtaining chronometric data for the Thar Desert, Indo-Gangetic plains and several other areas



**Dr. G. Parthasarathy**  
National Geophysical Research  
Institute

*Dr. G. Parthasarathy* of the National Geophysical Research Institute, Hyderabad has made valuable contributions in the field of mineralogy by using modern spectroscopic techniques for identification of various minerals that have advanced the understanding of the fundamental geological processes in the earth's crust and mantle.

**(Team Award)**



**Dr. Partha Pratim Chakraborty**  
Indian School of Mines

*Dr. Partha Pratim Chakraborty* of the Indian School of Mines, Dhanbad along with his teammates, has carried out extensive field and laboratory studies that have helped in the understanding of the deep crustal and surface depositional processes, in particular the geodynamic models of Ophiolites – Tertiary sediments in Andaman Group of islands and Burma – Java subduction complex.



**Dr. Chanam Debojit Singh**  
Geological Survey of India

*Dr. Chanam Debojit Singh* of the Geological Survey of India, of the Geological Survey of India, Kolkata along with his teammates, has carried out extensive field and laboratory studies that have helped in the understanding of the deep crustal and surface depositional processes, in particular the geodynamic models of Ophiolites – Tertiary sediments in Andaman Group of islands and Burma – Java subduction complex.



**Shri Tapan Pal**  
Geological Survey of India

*Dr. Tapan Pal* of the Geological Survey of India, Kolkata along with his teammates, has carried out extensive field and laboratory studies that have helped in the understanding of the deep crustal and surface depositional processes, in particular the geodynamic models of Ophiolites - Tertiary sediments in Andaman Group of island and Burma – Java subduction complex.



**Shri Tanay Dutta Gupta**  
Geological Survey of India

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### Applied Geology



**Dr. M. Shyam Prasad**  
National Institute of  
Oceanography

*Dr. M. Shyam Prasad* of the National Institute of Oceanography, Goa has made significant contributions in marine geology by establishing impact microcraters on Australasian microtektites, which is the first such occurrence on any impact ejecta on earth or of any other planetary material, hitherto found only on the lunar soil. He has demonstrated a similarity between the craters found on these microtektites and those found on the Moon.

### Geophysics / Applied Geophysics



**Dr. Rajender Kumar Chadha**  
National Geophysical Research  
Institute

*Dr. Rajender Kumar Chadha* of the National Geophysical Research Institute, Hyderabad has carried out extensive earthquake forecasting studies in the country leading to quantifying the phenomenon of ‘Reservoir Triggered Seismicity’. His research on seismicity has brought out seismically active pockets, which would provide vital inputs in studying the seismic hazards in the Stable Continental Region of India. He shares this award with Shri Prem Ballabh Pandey.



**Shri Prem Ballabh Pandey**  
Oil & Natural Gas Corp. Ltd.

*Shri Prem Ballabh Pandey* of the Oil & Natural Gas Corporation Ltd., Dehradun has applied seismic techniques in reservoir characterization and delineation of oil & gas fields. His work in Assam – Arakan, Cambay and Jaisalmer basins has led to the identification of various prospects and hydrocarbon reserves. He shares this award with Dr. Rajender Kumar Chadha.



**Dr. Jaya Prakash Shrivastava**  
University of Delhi

### **Geochemistry as Applied to Earth Science**

*Dr. Jaya Prakash Shrivastava* of the University of Delhi, has done extensive studies on the Deccan Volcanic Province leading to global impact in terms of chemical stratigraphy, age, duration of Deccan volcanism and its palaeoenvironmental implications at Cretaceous – Tertiary boundary. His pioneering research on biogeochemistry and geomicrobiology of copper rich areas from Malanjkhanda granitoid, Madhya Pradesh has gained international recognition.



**Dr. Ravi Bastia**  
Reliance Industries Limited

### **Oil and Natural Gas Exploration & Development**

*Dr. Ravi Bastia* of the Oil and Natural Gas Division, Reliance Industries Limited, Mumbai has made significant contribution by discovering a vast gas field in deep waters of Krishna-Godavari basin with the help of a focused three dimensional seismic survey and their attribute analysis. He is credited with estimating a reserve of 14 trillion cubic feet of gas in this basin.



**Shri Jonnalagadda Lakshmi  
Narasimham**  
Oil and Natural Gas Corp. Ltd.

*Shri Jonnalagadda Lakshmi Narasimham* of the Oil and Natural Gas Corporation Limited has made significant achievement in the field of reservoir engineering leading to optimization of oil and gas production from several vital oil and gas fields. He is also credited with establishing a world-class well test interpretation center at Mumbai

## NATIONAL MINERAL AWARD – 2002

### Mineral Discovery of Economic Andor Strategic Importance (Team Award)



**Shri Sanjay Kumar Dutta**  
Geological Survey of India

*Shri Sanjay Kumar Dutta* of the Geological Survey of India, Patna along with his teammate, has made significant contribution by discovering gold in Quartz Pebble Conglomerate in East Singhbhum district, Jharkhand, where no surface indication of mineralization was ever reported. About 3.3 km. strike length of this rock has been found to be gold bearing with average grade between 0.43 g/t and 0.77 g/t. in addition to silver, uranium and rare earth minerals.



**Shri Md. Wasiul Haque**  
Geological Survey of India

*Shri Md. Wasiul Haque* of the Geological Survey of India, Patna along with his teammate, has made significant contribution by discovering gold in Quartz Pebble Conglomerate in East Singhbhum district, Jharkhand, where no surface indication of mineralization was ever reported. About 3.3 km. strike length of this rock has been found to be gold bearing with average grade between 0.43 g/t and 0.77 g/t. in addition to silver, uranium and rare earth minerals.

### Mineral Exploration



**Dr. Reddy Dhana Raju**  
Department of Atomic Energy

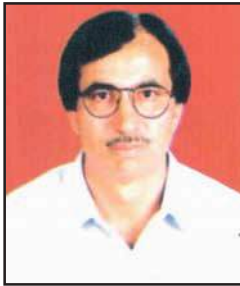
*Dr. Reddy Dhana Raju* of the Atomic Minerals Directorate for Exploration & Research, Hyderabad has contributed significantly on the Uranium-Thorium-Rare Metal-Rare Earth mineralisation in diverse geological settings in the country. His work has been crucial in understanding the genesis of several uranium deposits including Gogi deposit in Karnataka, Domiasiat deposit in Meghalaya and Tummalapalli – Lakkireddipalle occurrence in Andhra Pradesh.

### (Team Award)



**Dr. Shyam Sunder Ameta**  
Geological Survey of India

*Dr. Shyam Sunder Ameta* of the Geological Survey of India, Jaipur along with his teammate, has located a lead-zinc deposit concealed under 150-200 m thick barren rock cover and having no geophysical indications, in Rajsamand district, Rajasthan. He along with his co-worker has estimated 18.63 million tonnes of ore reserves averaging 5.20% Pb+Zn for this ore body



**Shri Brij Bhushan Sharma**  
Geological Survey of India

*Shri Brij Bhushan Sharma* of the Geological Survey of India, Jaipur along with his teammate, has located a lead-zinc deposit concealed under 150-200 m thick barren rock cover and having no geophysical indications, in Rajsamand district, Rajasthan. He along with his co-worker has estimated 18.63 million tonnes of ore reserves averaging 5.20% Pb+Zn for this ore body.

### **Mineral Beneficiation**



**Dr. Sumantra Bhattacharya**  
Indian School of Mines

*Dr. Sumantra Bhattacharya* of the Indian School of Mines, Dhanbad has developed a new “Graphic User Interface” based simulator for heavy media magnetite that has led to 10-20% reduction in magnetite consumption per tonne of coal washed. He has also been credited with Computer Simulation of beneficiation plants for hematitic iron ores and modernization of crushing circuits to maximize the yield of clean coal.

### **Mining Technology**



**Dr. Rajendra Singh**  
Central Mining Research Institute

*Dr. Rajendra Singh* of the Central Mining Research Institute, Dhanbad has developed suitable indigenous solutions for mining of thick and contiguous coal seams that have been widely recognized. He has carried out extensive investigations to calibrate physical and numerical models for prediction of the behaviour of underground structures under varying geo-mining conditions that have helped in establishing the design norms for underground coal mining in India.

### **Geology: Stratigraphy, Structural Geology, Tectonics Petrology , Paleontology, Mineralogy, Seismotectonics, Remote Sensing**



**Dr. Rajiv Sinha**  
Indian Institute of Technology

*Dr. Rajiv Sinha* of the Indian Institute of Technology, Kanpur, has done outstanding research on the Indo-Gangetic plains and the Thar Desert (Fluvial Geomorphology & Sedimentology). He is internationally recognized for his work on the Himalayan river systems and the paleoclimatic reconstruction of the Thar desert.



**Dr. M.V.S. Gupta**

National Institute of Oceanography

## Applied Geology

*Dr. M.V.S. Gupta* of the National Institute of Oceanography, Goa has made significant contribution in Marine Micropaleontology leading to a better understanding of the oceanography of the northern Indian Ocean. His studies on particle flux from both the Arabian Sea and the Bay of Bengal have been of immense help in characterization of various biogeochemical processes operating in the monsoon dominated ocean.



**Dr. Baldev Raj Arora**

Wadia Institute of Himalayan Geology

## Geophysics

*Dr. Baldev Raj Arora* of the Wadia Institute of Himalayan Geology, Dehradun has made valuable contribution in tracing the tectonic evolution of the Indian shield by inducting Geomagnetic Deep Sounding (GDS) and Long Period Magnetotelluric (LMT) techniques. His extensive studies, covering almost half of the Indian sub-continent have also paved way for preparing the “Electrical Lithospheric Conductance Map of India”. He shares the award with Dr. Anil Kumar Chaubey.



**Dr. Anil Kumar Chaubey**

National Institute of Oceanography

*Dr. Anil Kumar Chaubey* of the National Institute of Oceanography, Goa has carried out extensive studies on the structure and tectonics of the Bay of Bengal, Central Indian Ocean and off Antarctica. His studies have significantly contributed to the better understanding of the tectonic setting of the Indian Ocean and in preparation of the ‘Gas Hydrate Resource Map of India’. He shares the award with Dr. Baldev Raj Arora.



**Dr. Appasaheb Dhondiram Nejkar**

Geological Survey of India

## Geochemistry as Applied to Earth Science

*Dr. Appasaheb Dhondiram Nejkar* of the Geological Survey of India, along with his co-workers, has made significant contribution in the field of geochemistry of rare earth elements through neutron activation analysis of various rock samples from India, Indian Ocean and Antarctica.



**Shri Rattan Singh Bains**

Geological Survey of India

*Shri Rattan Singh Bains* of the Geological Survey of India, Pune along with his co-workers, has made significant contribution in the field of geochemistry of rare earth elements through neutron activation analysis of various rock samples from India, Indian Ocean and Antarctica.



**Shri Raosaheb Shrirang Alte**  
Geological Survey of India

*Shri Raosaheb Shrirang Alte* of the Geological Survey of India, along with his co-workers, has made significant contribution in the field of geochemistry of rare earth elements through neutron activation analysis of various rock samples from India, Indian Ocean and Antarctica.



**Shri Arun Digambar Peshave**  
Geological Survey of India

*Shri Arun Digambar Peshave* of the Geological Survey of India, along with his co-workers, has made significant contribution in the field of geochemistry of rare earth elements through neutron activation analysis of various rock samples from India, Indian Ocean and Antarctica.



**Miss Kalpana Kashinath Deshmukh**  
Geological Survey of India

*Miss Kalpana Kashinath Deshmukh* of the Geological Survey of India, along with her co-workers, has made significant contribution in the field of geochemistry of rare earth elements through neutron activation analysis of various rock samples from India, Indian Ocean and Antarctica.

### **Geochemistry**



**Dr.(Mrs.) C. Manikyamba**  
National Geophysical Research Institute

*Dr. (Mrs.) C. Manikyamba* of the National Geophysical Research Institute, Hyderabad has made significant contribution to the understanding of the greenstone belts, Archaean crustal growth and related mineralisation through geochemical studies. Dr. MANikyamba has carried out Nitrogen and Carbon isotopic studies on the kerogen from Archean and Proterozoic sedimentary rocks which led her to identify the unequivocal evidence of presence of alkaline basalts in greenstone belts and the role of plumes in the evolution of greenstone belts during Archean.

### **Applied Geology**



**Professor Vishwas Shripad Kale**  
University of Pune

*Professor Vishwas Shripad Kale* of the University of Pune, has investigated palaeofloods records of some of the large Indian rivers and has provided clear evidence of palaeohydrological and palaeoclimatic changes in the western and central India during the last 2000 years. His studies have significant implications on flood hydrology and flood hazard assessment in India.

## NATIONAL MINERAL AWARD – 2001

### Mineral Exploration



**Dr. J.V.S.S Narayana Murty**  
Oil and Natural Gas Corp. Ltd.

*Dr. J.V.S.S Narayana Murty* the Oil and Natural Gas Corporation Limited along with his coworker has made significant contribution in the field of exploration through applications of innovative geophysical techniques in seismic data processing and interpretation. Work of the team has provided a cost effective exploration solution and has also made significant impact by increasing the success ratio in oil exploration.



**Shri Parth Partim Mitra**  
Oil and Natural Gas Corp. Ltd.

*Shri Parth Partim Mitra* of the Oil and Natural Gas Corporation Limited along with his coworker has made significant contribution in the field of exploration developing indigenous technology in seismic data acquisition, processing, software development and geodata interpretation. Work of the team on seismic interpretation has proved to be immensely helpful in effective reservoir management leading to better recovery of hydrocarbons.

### Mineral Beneficiation



**Shri Suresh Chandra**  
National Mineral Development  
Corp. Ltd.

*Shri Suresh Chandra* of the National Mineral Development Corporation Limited, along with his teammate has developed technologies for commercial utilization of large quantity of mine wastes generated during mining and mineral beneficiation operations. Work of his team on utilization of waste generated during extraction of diamonds from host Kimberlite rock and conversion of Blue Dust to Ultra Pure Ferric Oxide have found wide application.

### Mineral Beneficiation (Team Award)



**Dr. Maharaj Kishan Dhar**  
National Mineral Development  
Corp. Ltd.

*Dr. Maharaj Kishan Dhar* of the National Mineral Development Corporation Limited, along with his teammate has developed technologies for commercial utilization of large quantity of mine wastes generated during mining and mineral beneficiation operations. Work of his team on utilization of waste generated during extraction of diamonds from host Kimberlite rock and conversion of Blue Dust to Ultra Pure Ferric Oxide have found wide application.

## Mining Technology



**Professor Sushil Bhandari**  
Jai Narain Vyas University

*Professor Sushil Bhandari* of the Jai Narain Vyas University, Jodhpur has made significant contributions in rock blasting that has helped mining operators in improving productivity. He is an accomplished academician with vast experience of teaching, research and educational administration.

### **Geology : Stratigraphy, Structural Geology, Tectonics Petrology, Paleontology, Mineralogy, Seismotectonics, Remote Sensing**



**Dr. Tallavajhala Radhakrishana**  
Centre for Earth Science Studies

*Dr. Tallavajhala Radhakrishana* of the Centre for Earth Science Studies, Trivandrum, has made significant contribution in meticulous formulation and execution of the multidisciplinary studies on mafic dykes in South India. He has effectively used the results to enhance understanding of the geotectonic evolution of the South Indian shield with implications on the assembly of the supercontinent.



**Dr. Anil Bhandari**  
Oil and Natural Gas Corporation  
Limited

*Dr. Anil Bhandari* of the Oil and Natural Gas Corporation Limited, Dehradun has made valuable contribution in Micropaleontology and Stratigraphy by carrying out reconstruction of sea level fluctuations and paleodepositional models through high resolution Ostracode biozonation. His work has helped in understanding the geological history, petroleum habitat of Cambay, Bombay Offshore, Assam- Arakan and those of Krishna- Godavari and Cauvery Basins besides providing leads to future exploration activities.

## Applied Geology



**Dr. Pramod Chand Nawani**  
Geological Survey of India

*Dr. Pramod Chand Nawani* of the Geological Survey of India, Dehradun has evolved various innovative geotechnical concepts and techniques for engineering geological modeling that have helped in construction of major hydroelectric projects in Garhwal Himalayas. His efforts have led to saving of enormous excavation and filling thereby reducing the cost of the projects. Dr. Nawani has played a key role in carrying out engineering geological investigations during construction of dam, spillway structures and underground power house complex at Tehri Dam project. The geotechnical data input generated by him were utilized by the International and Indian experts and high level committees set up by the government of India while finalizing the issues related to design and safety aspects of Tehri Dam.

## Geophysics



**Dr. S. N. Prasad**  
National Geophysical Research  
Institute

*Dr. S. N. Prasad* of the National Geophysical Research Institute, Hyderabad has made significant contributions in inversion of magnetotelluric and geomagnetic deep sounding data. He is credited with setting up of India's first digital magnetic observatory at NGRI. His researches have been extensively quoted in several research and review papers of international scientists and have also been cited in several books by international publishers.



**Dr. Vandrapu Subrahmanyam**  
National Institute of  
Oceanography

*Dr. Vandrapu Subrahmanyam* of the, National Institute of Oceanography, Goa, has made valuable contributions marine geophysics leading to understanding of the crustal structure and tectonic setting of the western continental margin and Bay of Bengal. He has been instrumental in preparation of the Gas Hydrate Resource Map of Indian continental margins besides carrying out comparative studies on deformation of the Central Indian Ocean Basin crust with the tectonic events in the Himalayan region.

## Geochemistry as Applied to Earth Science



**Dr. Rajesh K. Srivastava**  
Banaras Hindu University

*Dr. Rajesh K. Srivastava* of the Banaras Hindu University has done outstanding geochemical studies on alkaline and comonotite igneous complexes, Precambrian mafic igneous rocks and the Andaman Ophiolite Suite leading to a better understanding of the chemical evolution of the sub-continental lithosphere and mantle.



**Professor B. Mahabaleshwar**  
Bangalore University

*Professor B. Mahabaleshwar* of the Bangalore University has done extensive work on the geochemical of charnockite suite of rocks, Archaean metasediments and Closepet granite that have increased knowledge base on the thermal structure of Archaean crust as well as the crust-mantle interaction. His work on the granulite facies metamorphic rocks in South India is well recognized.

## Environmental Geosciences and Management Studies (Team Award)



**Shri Manohar Sinha**  
Geological Survey of India

*Shri Manohar Sinha* of the Geological Survey of India, Nagpur along with his teammates has carried out comprehensive studies and suggested suitable remedial and mitigatory measures for fast degrading world heritage monuments of ancient Ajanta and Ellora caves. His team is credited with making a detailed environmental impact assessment to identify various environmental and anthropogenic factors responsible for degradation of caves and creating a comprehensive environmental management plan.



**Shri Kotapalli Venkata Rao**  
Geological Survey of India

*Shri Kotapalli Venkata Rao* of the Geological Survey of India, Nagpur along with his teammates has carried out comprehensive studies and suggested suitable remedial and mitigatory measures for fast degrading world heritage monuments of ancient Ajanta and Ellora caves. His team is credited with making a detailed environmental impact assessment to identify various environmental and anthropogenic factors responsible for degradation of caves and creating a comprehensive environmental management plan.



**Shri Ghanshyam Gonnade**  
Geological Survey of India

*Shri Ghanshyam Gonnade* of the Geological Survey of India, Nagpur along with his teammates has carried out comprehensive studies and suggested suitable remedial and mitigatory measures for fast degrading world heritage monuments of ancient Ajanta and Ellora caves. His team is credited with making a detailed environmental impact assessment to identify various environmental and anthropogenic factors responsible for degradation of caves and creating a comprehensive environmental management plan.



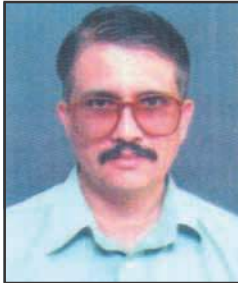
**Shri Hamza Yusuf Bhai**  
Geological Survey of India

*Shri Hamza Yusuf Bhai* of the Geological Survey of India, Nagpur along with his teammates has carried out comprehensive studies and suggested suitable remedial and mitigatory measures for fast degrading world heritage monuments of ancient Ajanta and Ellora caves. His team is credited with making a detailed environmental impact assessment to identify various environmental and anthropogenic factors responsible for degradation of caves and creating a comprehensive environmental management plan.



**Shri S. Sekar**  
Geological Survey of India

*Shri S. Sekar* of the Geological Survey of India, Nagpur along with his teammates has carried out comprehensive studies and suggested suitable remedial and mitigatory measures for fast degrading world heritage monuments of ancient Ajanta and Ellora caves. His team is credited with making a detailed environmental impact assessment to identify various environmental and anthropogenic factors responsible for degradation of caves and creating a comprehensive environmental management plan.



**Shri Chandrashekhar Joshi**  
Geological Survey of India

*Shri Chandrashekhar Joshi* of the Geological Survey of India, Nagpur along with his teammates has carried out comprehensive studies and suggested suitable remedial and mitigatory measures for fast degrading world heritage monuments of ancient Ajanta and Ellora caves. His team is credited with making a detailed environmental impact assessment to identify various environmental and anthropogenic factors responsible for degradation of caves and creating a comprehensive environmental management plan.



**Shri Prem Babu**  
Geological Survey of India

*Shri Prem Babu* of the Geological Survey of India, Nagpur along with his teammates has carried out comprehensive studies and suggested suitable remedial and mitigatory measures for fast degrading world heritage monuments of ancient Ajanta and Ellora caves. His team is credited with making a detailed environmental impact assessment to identify various environmental and anthropogenic factors responsible for degradation of caves and creating a comprehensive environmental management plan.



**Professor Gurdeep Singh**  
Indian School of Mines

*Professor Gurdeep Singh* of the Indian School of Mines, Dhanbad has made valuable contributions in the area of water, air and solid waste pollution abatement and mitigation measures. He is recognized for his work in teaching, research and industrial application of the environmental management particularly with respect to the mining and allied areas. His research work on low cost treatment of effluents and pumped out mine water besides utilization of coal combustion residues have been widely appreciated.

## Coal and Lignite Exploration & Discovery (Team Award)



**Shri M. Radhakrishnan**  
Nayveli Lignite Corp. Ltd.



**Dr. R. Hariharan**  
Nayveli Lignite Corp. Ltd.



**Shri M. Krishnan**  
Nayveli Lignite Corp. Ltd.



**Shri S. Kamaraj**  
Nayveli Lignite Corp. Ltd.



**Shri Narendra Kumar Verma**  
Nayveli Lignite Corp. Ltd.

*Shri M. Radhakrishnan* of the Nayveli Lignite Corporation Limited, alongwith his teammates has carried out extensive exploration work leading to huge lignite finds in Mannargudi in Tamilnadu and Sidhari in Rajasthan. The sustained efforts of the team has resulted in increasing the resource potential of lignite in Tamilnadu and Rajasthan from 3300 and 100 million tones to 30000 and 2300 million tonnes respectively.

*Dr. R. Hariharan* of the Nayveli Lignite Corporation Limited, alongwith his teammates has carried out extensive exploration work leading to huge lignite finds in Mannargudi in Tamilnadu and Sidhari in Rajasthan. The sustained efforts of the team has resulted in increasing the resource potential of lignite in Tamilnadu and Rajasthan from 3300 and 100 million tones to 30000 and 2300 million tonnes respectively.

*Shri M. Krishnan* of the Nayveli Lignite Corporation Limited, alongwith his teammates has carried out extensive exploration work leading to huge lignite finds in Mannargudi in Tamilnadu and Sidhari in Rajasthan. The sustained efforts of the team has resulted in increasing the resource potential of lignite in Tamilnadu and Rajasthan from 3300 and 100 million tones to 30000 and 2300 million tonnes respectively.

*Shri S. Kamaraj* of the Nayveli Lignite Corporation Limited, alongwith his teammates has carried out extensive exploration work leading to huge lignite finds in Mannargudi in Tamilnadu and Sidhari in Rajasthan. The sustained efforts of the team has resulted in increasing the resource potential of lignite in Tamilnadu and Rajasthan from 3300 and 100 million tones to 30000 and 2300 million tonnes respectively.

## Oil and Natural Gas Exploration and Development

*Shri Narendra Kumar Verma* of the Oil and Natural Gas Corporation Limited has carried out excellent studies in Bombay High that provided new insights into its hydrocarbon potential besides proposing structural models in Northwest Himalaya, Bhutan Foothills and Satpura basins depicting their hydrocarbon potential. He has also undertaken studies in the Caspian region, Myanmar offshore and North Sumatra basin for techno-economic evaluation of new petroleum exploration ventures.

## NATIONAL MINERAL AWARD – 2000

### Mineral Discovery (Team Award)



**Shri Sreeramachandra Rao  
Koyalamudy**  
Geological Survey of India

*Shri Sreeramachandra Rao Koyalamudy* of the Geological Survey of India, Hyderabad along with his team members has made significant contribution in discovery of gold mineralisation in Jonnagiri Schist Belt, Andhra Pradesh. The team efforts have led to locating gold prospects with probable reserves of 7.77 million tonnes of ores with an average grade of 1.7 g/t Au in Dona East block and 0.70 million tonnes of 4.659 g/t Au in Dona Temple block of this belt.



**Shri M.S. Jairam**  
Geological Survey of India

*Shri M.S. Jairam* of the Geological Survey of India, Hyderabad along with his team members has made significant contribution in discovery of gold mineralisation in Jonnagiri Schist Belt, Andhra Pradesh. The team efforts have led to locating gold prospects with probable reserves of 7.77 million tones of ores with an average grade of 1.7 g/t Au in Dona East block and 0.70 million tonnes of 4.659 g/t Au in Dona Temple block of this belt.



**Shri S. Ananda Murthy**  
Geological Survey of India,  
Kolkata

*Shri S. Ananda Murthy* of the Geological Survey of India, Hyderabad along with his team members has made significant contribution in discovery of gold mineralisation in Jonnagiri Schist Belt, Andhra Pradesh. The team efforts have led to locating gold prospects with probable reserves of 7.77 million tonnes of ore with an average grade of 1.7 g/t Au in Dona East block and 0.70 million tonnes of 4.659 g/t Au in Dona Temple block of this belt.



**Dr. D. Roop Kumar**  
Geological Survey of India

*Dr. D. Roop Kumar* of the Geological Survey of India, Hyderabad along with his team members has made significant contribution in discovery of gold mineralisation in Jonnagiri Schist Belt, Andhra Pradesh. The team efforts have led to locating gold prospects with probable reserves of 7.77 million tones of ore with an average grade of 1.7 g/t Au in Dona East block and 0.70 million tonnes of 4.659 g/t Au in Dona Temple block of this belt.



**Dr. V. Balaram**

National Geophysical Research  
Institute

### **Mineral Exploration Including Application of Innovative Geophysical / Geochemical Techniques.**

*Dr. V. Balaram* of the National Geophysical Research Institute, Hyderabad has made significant contribution in the field geochemistry and its application to mineral exploration. He is credited with the development of a highly sophisticated geochemical laboratory at NGRI for generating precise geochemical on various elements.



**Shri K. Udaya Bhaskar**

Regional Research Laboratory

### **Mineral Beneficiation**

*Shri K. Udaya Bhaskar* of the Regional Research Laboratory, Bhopal has made significant contribution in the field of mineral beneficiation by establishing 'Water Injection Cyclone' as a development over conventional Hydrocyclone for achieving superior classification with lesser consumption of energy.



**Dr. Nikkam Suresh**

Indian School of Mines

*Dr. Nikkam Suresh* of the Indian School of Mines, Dhanbad has made significant improvement in performance of several types of mineral beneficiation plants. He has been instrumental in developing predictive mathematical models to describe the behaviour of fines and water in Mineral / Coal Floatation System.



**Dr. Singam Jayanthu**

National Institute of Rock  
Mechanics

### **Mining Technology**

*Dr. Singam Jayanthu* of the National Institute of Rock Mechanics, Kolar Gold Fields, Karnataka has made significant contribution in the field of mining technology to ensure optimal exploitation of multiple and thick coal reserves in a number of coal fields. He has successfully designed support system in multiple coal seam workings resulting in faster extraction with about 80% recovery.

## Development, Structuring and Implementation of Information Systems



**Dr. J. Simhachalam**  
Geological Survey of India

*Dr. J. Simhachalam* of the Geological Survey of India, Hyderabad has made significant contribution in the field of geoinformation with creation of a database for exploration data of green stone belts of South India and designing different components of the National Geoscientific Database Project at GSI, Hyderabad.

## Geology: Stratigraphy, Structural Geology (Team Award)



**Dr. Shailendra Mehra**  
Geological Survey of India

*Dr. Shailendra Mehra* of the Geological Survey of India, Lucknow along with his team members has made significant contribution through paleontological studies in Himachal Pradesh for facilitating regional geological correlation.



**Dr. Vijay Prakash Mishra**  
Geological Survey of India

*Dr. Vijay Prakash Mishra* of the Geological Survey of India, Lucknow along with his team members has made significant contribution through paleontological studies in Himachal Pradesh for facilitating regional geological correlation.



**Dr. Anil Kumar Mathur**  
Geological Survey of India

*Dr. Anil Kumar Mathur* of the Geological Survey of India, Lucknow along with his team members has made significant contribution through paleontological studies in Himachal Pradesh for facilitating regional geological correlation.



**Dr. Ajoy Kumar Moitra**  
Geological Survey of India

*Dr. Ajoy Kumar Moitra* of the Geological Survey of India, Lucknow along with his team members has made significant contribution through paleontological studies in Himachal Pradesh for facilitating regional geological correlation.



**Dr. P. Yadagiri**  
Geological Survey of India

*Dr. P. Yadagiri* of the Geological Survey of India, Lucknow along with his team members has made significant contribution through paleontological studies in Himachal Pradesh for facilitating regional geological correlation.

### **Geology : Stratigraphy, Structural Geology**



**Professor Deepak Chandra Srivastava**  
Indian Institute of Technology

*Professor Deepak Chandra Srivastava*, of the Indian Institute of Technology, Roorkee has made valuable contribution in the field of structural geology. His research work in central Rajasthan and Singhbhum shear zone in Bihar as well in the Himalayas is widely appreciated. His recent work proposing thin-skinned tectonics in the Precambrian terrain of Rajasthan has been widely appreciated.



**Dr. Anil Kumar Gupta**  
Indian Institute of Technology

*Dr. Anil Kumar Gupta* of the Indian Institute of Technology, Kharagpur has made valuable contribution in the field of marine micropalaeontological studies of the Indian Ocean. His innovative research has led to a better understanding of changes in the Indian monsoon system on various time scales.

## Geophysics – Application of Geophysical Methods



**Shri Gautam Sen**

Oil and Natural Gas Corp. Ltd.

*Shri Gautam Sen* of the Oil and Natural Gas Corporation Limited, Mumbai has made significant contribution in processing of 3-D seismic data by developing various innovative techniques. He has conducted integrated studies leading to better understanding of the reservoir facies of Mukta and Neelam oil fields.



**Professor Sukhendu Dey**

Indian School of Mines

*Professor Sukhendu Dey* of the Indian School of Mines, Dhanbad has made valuable contribution in the field of theoretical seismology. His studies may help in more accurate prediction and determination of magnitude of earthquakes besides devising a new controlling method of the destruction.

## Geochemistry as Applied to Earth Science



**Dr. M. Jayananda**

Bangalore University

*Dr. M. Jayananda* Department of Geology of the Bangalore University has done pioneering studies on the evaluation of the Archaean continental crust by combining petrological and structural studies with geochemical and geochronological work. His research has also helped in understanding the structural evolution the Karnataka craton and granulite metamorphism.

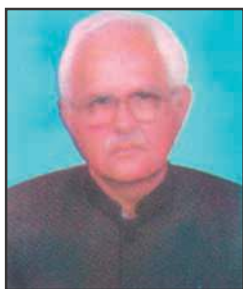


**Professor Dhiraj Mohan  
Banerjee**

University of Delhi

*Professor Dhiraj Mohan Banerjee* of the University of Delhi has carried out outstanding work on geochemical aspects of various Indian phosphorites and other sediments that have led towards meaningful interpretation of paleo-environmental changes across the era-boundaries. The geochemical studies undertaken by Dr. Banerjee led to the development of a global model helping the discovery of new phosphorite deposits in Angola and Argentina.

### Environmental Geosciences (Team Award)



**Shri Ram Kumar Chaturvedi**  
Geological Survey of India

*Shri Ram Kumar Chaturvedi* of the Geological Survey of India, Jabalpur along with his colleagues has made significant contribution in carrying out seismotectonic investigations of the Jabalpur earthquake. The team has also helped in the establishment of Broad Band Seismic observatory at Jabalpur which facilitates collection of valuable data on seismic activity in this sensitive Son-Narmada-Tapti seismic zone.



**Shri S.D. Pimprikar**  
Geological Survey of India

*Shri S.D. Pimprikar* of the Geological Survey of India, Jabalpur along with his colleagues has made significant contribution in carrying out seismotectonic investigations of the Jabalpur earthquake. The team has also helped in the establishment of Broad Band Seismic observatory at Jabalpur which facilitates collection of valuable data on seismic activity in this sensitive Son-Narmada-Tapti seismic zone.



**Shri Pabolu Ramachandra Rao**  
Geological Survey of India

*Shri Pabolu Ramachandra Rao* of the Geological Survey of India, Jabalpur along with his colleagues has made significant contribution in carrying out seismotectonic investigations of the Jabalpur earthquake. The team has also helped in the establishment of Broad Band Seismic observatory at Jabalpur which facilitates collection of valuable data on seismic activity in this sensitive Son-Narmada-Tapti seismic zone.

### Coal and Lignite Exploration (Team Award)



**Shri James Peters**  
Oil and Natural Gas Corp. Ltd.

*Shri James Peters* of the Oil and Natural Gas Corporation Limited, Dehradun along with his team has carried out pioneering work in the study of Mumbai offshore basin. He has also contributed towards analysis of Satpura basin and application of Coal Bed Methane technology in the India.



**Shri P.N. Hajra**  
Oil and Natural Gas Corp. Ltd.

*Shri P.N. Hajra* of the Oil and Natural Gas Corporation Limited, Dehradun along with his team has made significant contribution in exploring the Coal Bed Methane potential with the application of laboratory R&D practices to the actual area of operation for exploration. He is credited with designing suitable equipments for use, specifically in coal-core evaluation at reservoir condition



**Dr. Sushanta Kumar Das**  
Oil and Natural Gas Corp. Ltd.

*Dr. Sushanta Kumar Das* of the Oil and Natural Gas Corporation Limited, Dehradun along with his team has carried out pioneering work in the study of Mumbai offshore basin. He has also contributed towards analysis of Satpura basin and application of Coal Bed Methane technology in the India.



**Shri Debashis Das**  
Oil and Natural Gas Corp. Ltd.

*Shri Debashis Das* of the Oil and Natural Gas Corporation Limited, Dehradun along with his team has carried out pioneering work in the study of Mumbai offshore basin. He has also contributed towards analysis of Satpura basin and application of Coal Bed Methane technology in the India.

### **Oil & Natural Gas Exploration & Development**



**Dr. Joydev Kundu**  
Oil and Natural Gas Corp. Ltd.

*Dr. Joydev Kundu* of the Oil and Natural Gas Corporation Limited, Dehradun has made outstanding contribution in the field of exploration and exploitation of hydrocarbon resources including estimation of hydrocarbon reserves in Mumbai Offshore basin and mapping six new medium sized hydrocarbon prospects in upper Assam.

## NATIONAL MINERAL AWARD – 1999

### Mineral Discovery (Team Award)



**Shri Sundar Achuta Pandit**  
Atomic Mineral Division

*Shri Sundar Achuta Pandit* of the Atomic Mineral Division, Hyderabad along with his coworker has carried out systematic radiometric survey including gamma ray logging of bore wells that has led to the discovery of Gogi uranium deposit in Gulbarga district of Karnataka. Studies done by the team has established uranium mineralization over a strike length of 1800m.



**Dr. Kiran Kumar Achar**  
Atomic Mineral Division

*Dr. Kiran Kumar Achar* of the Atomic Mineral Division, Hyderabad along with his coworker has carried out systematic radiometric survey including gamma ray logging of bore wells that has led to the discovery of Gogi uranium deposit in Gulbarga district of Karnataka. Studies done by the team has established uranium mineralization over a strike length of 1800m.



**Shri Venkatachalam Natarajan**  
Atomic Mineral Division

*Shri Venkatachalam Natarajan* of the Atomic Mineral Division, Hyderabad along with his coworker has carried out systematic radiometric survey including gamma ray logging of bore wells that has led to the discovery of Gogi uranium deposit in Gulbarga district of Karnataka. Studies done by the team has established uranium mineralization over a strike length of 1800m.



**Dr. M. S. Rao**  
Geological Survey of India

*Dr. M. S. Rao* of the Geological Survey of India, Bangalore has added 25000 high precision whole rock analyses to the geochemical data base of the country that has immensely helped in refining rock nomenclature. He is credited with establishing stable isotope and fluid inclusion laboratories in the Geological Survey of India for carrying out ore deposit modelling



**Dr. R. Bhima Rao**  
Regional Research Laboratory

### **Mineral Beneficiation**

*Dr. R. Bhima Rao* of the Regional Research Laboratory, Bhubaneswar has made significant contributions in laboratory and plant trials for selection of additives in mineral grinding for optimizing the unit operations of various industries. His work has led towards reduction in power consumption, improved output of the mill and better recovery of the products in sillimanite, graphite and magnesite industries.



**Dr. Rama Nand Gupta**  
National Institute of Rock  
Mechanics

### **Mining Technology**

*Dr. Rama Nand Gupta* of the National Institute of Rock Mechanics, Karnataka has made significant contributions towards improvement of roof conditions and support systems resulting in increased production in the underground mines. He is one of the pioneers in use of controlled blasting techniques in mines located in inhabited area.



**Shri Bimal Kumar  
Bandyopadhyay**  
Geological Survey of India

### **Development, Structuring and Implementation of Information Systems (Team Award)**

*Shri Bimal Kumar Bandyopadhyay* of the Geological Survey of India, Nagpur alongwith his colleagues has prepared a multidisciplinary geo-scientific database of Central India and converted it to a digital multilayered database in GIS domain. It would be of immense help in mineral targeting and exploration.



**Dr. Ravi Shanker Shukla**  
Geological Survey of India

*Dr. Ravi Shanker Shukla* of the Geological Survey of India, Nagpur alongwith his colleagues has prepared a multidisciplinary geo-scientific database of Central India and converted it to a digital multilayered database in GIS domain. It would be of immense help in mineral targeting and exploration.



**Dr. Subrata Chakraborti**  
Geological Survey of India

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**Shri Praveen Kumar**  
Geological Survey of India

*Shri Praveen Kumar Sinha* of the Geological Survey of India, Nagpur alongwith his colleagues has prepared a multidisciplinary geo-scientific database of Central India and converted it to a digital multilayered database in GIS domain. It would be of immense help in mineral targeting and exploration.



**Shri Amiya Kumar Huin**  
Geological Survey of India

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**Geology : Stratigraphy, Structural Geology, Tectonics,  
Petrology, Palaeontology, Mineralogy, Seismotectonics,  
Remote Sensing etc.**



**Professor Surendra Kumar**  
Lucknow University

*Professor Surendra Kumar* of the Lucknow University has carried out outstanding paleontological studies on Vindhyan Supergroup, Krol Formation and Deoban Limestone that have led to better understanding of biostratigraphy and evolution of Precambrian life.

**(Team Award)**



**Dr. H. M. Ramachandra**  
Geological Survey of India

*Dr. H. M. Ramachandra* of the Geological Survey of India, Nagpur has carried out extensive studies in different parts of Central India and has evolved a tectono-magmatic model for unraveling the complex evolutionary history of the Central India.



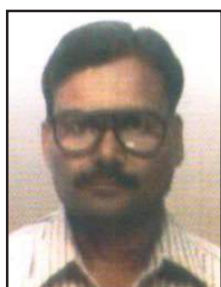
**Dr. Anupam Chattopadhyay**  
Geological Survey of India

*Dr. Anupam Chattopadhyay* of the Geological Survey of India, Nagpur has carried out extensive studies in different parts of Central India and has evolved a tectono-magmatic model for unraveling the complex evolutionary history of the Central India.



**Dr. Santanu Kumar Bhowmik**  
Geological Survey of India

*Dr. Santanu Kumar Bhowmik* of the Geological Survey of India, Nagpur has carried out extensive studies in different parts of Central India and has evolved a tectono-magmatic model for unraveling the complex evolutionary history of the Central India.



**Shri Abdul Sattar Khan**  
Geological Survey of India

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**Dr. Taraknath Pal**  
Geological Survey of India

*Dr. Taraknath Pal* of the Geological Survey of India, Nagpur has carried out extensive studies in different parts of Central India and has evolved a tectono-magmatic model for unraveling the complex evolutionary history of the Central India.

## Geophysics



**Dr. Sankar Kumar Nath**  
Indian Institute of Technology

*Dr. Sankar Kumar Nath* of the Indian Institute of Technology, Kharagpur has applied geophysical concepts in seismic prospecting, earthquake seismology, geophysical tomography and groundwater geophysics. His studies have resulted in efficient exploration of petroleum/ gas and ground water reservoirs besides assisting in hazard mitigation in mines and earthquake prone areas.



**Dr. Harish Chandra Tewari**  
National Geophysical Research  
Institute

*Dr. Harish Chandra Tewari* of the National Geophysical Research Institute, Hyderabad has done identification of low velocity sediments underlying high velocity rocks by direct approach seismic survey resulting in delineation of Mesozoic rocks under Deccan Trap in Saurashtra, Kutch and Narmada regions.

## Geochemistry



**Dr. Anindya Sarkar**  
Indian School of Mines

*Dr. Anindya Sarkar* of the Indian School of Mines, Dhanbad has done various types of geochemical that have made significant impact on paleo-climate, paleo-stratigraphy and post monsoonal changes. His work on anoxicity of deep ocean water during last ice age explains mechanism of uranium fixation in sedimentary/aqueous environment.



**Mrs. Nuzhath Joeman Thomas**  
Oil and Natural Gas Corp. Ltd.

*Mrs. Nuzhath Joeman Thomas* of the Oil and Natural Gas Corporation Limited, Dehradun has done extensive studies in different petroleum bearing basins of India that have helped in devising exploration strategies and prioritizing prospects. She is also credited with developing software and geochemical database for application in petroleum exploration.

### **Coal & Lignite Exploration and Development**



**Dr. Atul Kumar Varma**  
Indian School of Mines

*Dr. Atul Kumar Varma* of the Indian School of Mines, Dhanbad has done research on characterization of coal. He has also worked on the impact of geological and petrographic conditions on the coal liquefaction and coking behavior of coal besides its solvent extraction and spontaneous combustion.

### **(Team Award)**



**Shri Prabir Kumar Parui**  
Geological Survey of India

*Shri Prabir Kumar Parui* of the Geological Survey of India, Kolkata along with his team members has delineated significant and potential coal deposits in Godavari Valley coal fields. A total of 328.60 million tonnes of power grade coal of which 224.18 million tonnes occur within 300m depth have been estimated.



**Shri K. Premchand**  
Geological Survey of India

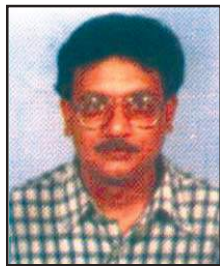
*Shri K. Premchand* of the Geological Survey of India, Kolkata along with his team members has delineated significant and potential coal deposits in Godavari Valley coal fields. A total of 328.60 million tonnes of power grade coal of which 224.18 million tonnes occur within 300m depth have been estimated.



**Shri M. Chandra Das**  
Geological Survey of India



**Shri B. Gangopadhyay**  
Geological Survey of India



**Shri Chitta Ranjan Barman**  
Geological Survey of India



**Shri Jokhan Ram**  
Oil and Natural Gas Corp. Ltd.



**Shri Narendra Kumar Lal**  
Oil and Natural Gas Corp. Ltd.

*Shri M. Chandra Das* of the Geological Survey of India, Kolkata along with his team members has delineated significant and potential coal deposits in Godavari Valley coal fields. A total of 328.60 million tonnes of power grade coal of which 224.18 million tonnes occur within 300m depth have been estimated.

*Shri Biswajit Gangopadhyay* of the Geological Survey of India, Kolkata along with his team members has delineated significant and potential coal deposits in Godavari Valley coal fields. A total of 328.60 million tonnes of power grade coal of which 224.18 million tonnes occur within 300m depth have been estimated.

*Shri Chitta Ranjan Barman* of the Geological Survey of India, Kolkata along with his team members has delineated significant and potential coal deposits in Godavari Valley coal fields. A total of 328.60 million tonnes of power grade coal of which 224.18 million tonnes occur within 300m depth have been estimated.

### **Studies on Oil and Natural Gas**

*Shri Jokhan Ram* of the Oil and Natural Gas Corporation Limited, Dehradun had evolved a new exploration strategy for hydrocarbons in Himalayan foot hills, Ganga, Vindhyan and South Rewa basins on the basis of his extensive studies in these regions.

*Shri Narendra Kumar Lal* of the Oil and Natural Gas Corporation Limited, Dehradun has applied innovative concepts for hydrocarbon exploration in Kutch, Bombay offshore, Cambay, Krishna- Godavari and Assam basins leading to identification of several new prospects.

## NATIONAL MINERAL AWARD – 1998

### Mineral Discovery



**Shri Rabindra Nath Patra**  
Geological Survey of India

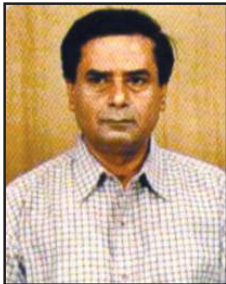
*Shri Rabindra Nath Patra* of the Geological Survey of India, Bhubaneswar has done systematic exploration of Platinum Group of Elements (PGE) in ultramafic complex of Baula-Nausahi in Orissa and established it to be a first of its kind potential prospect in the country. A reserve of 6 million tonnes of PGE ore with an average grade of 2 gram per tonne has been estimated. His studies have led to a better understanding of the geology and control of mineralization in this complex.



**Shri C.P. Sisodia**  
Geological Survey of India

### Mineral Exploration (Team Award)

*Shri C.P. Sisodia* of the Geological Survey of India, Jaipur in association with his coworker has made valuable contribution in identifying the second largest zinc-lead deposit in Kayar block of Ajmer district, Rajasthan through multidisciplinary studies. The team had been successful in estimating ore resources of 9.18 million tonnes from this deposit



**Shri A. K. Chattopadhyay**  
Geological Survey of India

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**Professor D. C. Panigrahi**  
Indian School of Mines

### Mining Technology

*Professor D. C. Panigrahi* of the Indian School of Mines, Dhanbad has contributed significantly in improving underground mine ventilation and design of work place environment in underground mines including heat and humidity problems. His work has been useful in enhancement of production and safety in the mines of India. His work on controlling the coal mines fires has helped in planning the trenching activity in and monitoring mine fires.



**Professor C. Srikantappa**  
University of Mysore



**Mohammad J. Ahmed**  
Geological Survey of India



**Shri R. Sreehari**  
Atomic Mineral Division



**Shri C.V.R. Sarma**  
Atomic Mineral Division



**Shri Amit Bhusan Dutt**  
Geological Survey of India

## Geology

*Professor C. Srikantappa* of the University of Mysore has studied the process of incipient charnockitisation in the Ponnudi area of Kerala besides the identification of high pressure Nilgiri granulites. He is credited with establishing a fluid inclusion study laboratory in Mysore University and has achieved expertise in this field.

## Applied Geology

*Mohammad J. Ahmed* of the Geological Survey of India, Nagpur has made valuable contribution in the field of engineering geology during the construction of Narmada Sagar Mega project. He is credited with introducing innovative and cost effective applications like optimum slope treatment, characterization of rock masses and optimum support systems leading to enormous saving of construction time and cost of the project.

## Geophysics

*Shri R. Sreehari* of the Atomic Mineral Division, Hyderabad along with his coworker has designed a PC based airborne gamma ray spectrometric (AGRS) survey system. for detection of radioactive elements. The new AGRS has been successfully used in obtaining gamma-ray spectra and tracings of radioactive elemental concentrations on the PC in the aircraft as well as at the air base with excellent results.

*Shri C.V.R. Sarma* of the Atomic Mineral Division, Hyderabad along with his coworker has designed a PC based airborne gamma ray spectrometric (AGRS) survey system. for detection of radioactive elements. The new AGRS has been successfully used in obtaining gamma-ray spectra and tracings of radioactive elemental concentrations on the PC in the aircraft as well as at the air base with excellent results.

## Coal & Lignite

*Shri Amit Bhusan Dutt* of the Geological Survey of India, Kolkata has developed exploration models for coal and lignite deposits and has successfully tested them in the southern part of Godavari Valley coal basins and Thanjavur lignite basin in Tamil Nadu. His work has resulted in estimation of sizeable resources of coal in Rampuram area.

## NATIONAL MINERAL AWARD – 1997

### Mineral Discovery (Team Award)



**Shri S. S. Nayak**  
Geological Survey of India

*Shri S. S. Nayak* of the Geological Survey of India, Hyderabad along with his coworkers has developed a multidisciplinary exploration model which has led to the discovery of four new diamond bearing kimberlite pipes in Wajrakarur area, twenty new kimberlite pipes in Narayanpet kimberlite field and a new diamond bearing cluster near Kalyandurg in Andhra Pradesh. The work carried out by the team has placed Karnataka State on the diamond map of the India.



**Shri K. Raghu Prasada Rao**  
Geological Survey of India

*Shri K. Raghu Prasada Rao* of the Geological Survey of India, Hyderabad along with his coworkers has developed a multidisciplinary exploration model which has led to the discovery of four new diamond bearing kimberlite pipes in Wajrakarur area, twenty new kimberlite pipes in Narayanpet kimberlite field and a new diamond bearing cluster near Kalyandurg in Andhra Pradesh. The work carried out by the team has placed Karnataka State on the diamond map of the India.



**Shri K.V. Suryanarayana Rao**  
Geological Survey of India

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**Shri K.S. Bhaskara Rao**  
Geological Survey of India

*Shri K. S. Bhaskara Rao* of the Geological Survey of India, Hyderabad along with his coworkers has developed a multidisciplinary exploration model which has led to the discovery of four new diamond bearing kimberlite pipes in Wajrakarur area, twenty new kimberlite pipes in Narayanpet kimberlite field and a new diamond bearing cluster near Kalyandurg in Andhra Pradesh. The work carried out by the team has placed Karnataka State on the diamond map of the India.

**Mineral Discovery of Economic or Strategic Importance  
(Team Award)**



**Shri Jayant Kumar Pashine**  
Directorate of Geology and  
Mining (M.P.)

*Shri Jayant Kumar Pashine* of the Directorate of Geology and Mining, Madhya Pradesh along with his teammates have made significant contribution by confirming presence of path finder minerals and diamond in gravels, that has led to locating diamondiferous kimberlite-lamproites at Payalikhand-Bahradih areas of Raipur district, Madhya Pradesh.



**Shri Dinesh Verma**  
Directorate of Geology and  
Mining (M.P.)

*Shri Dinesh Verma* of the Directorate of Geology and Mining, Madhya Pradesh along with his teammates have made significant contribution by confirming presence of path finder minerals and diamond in gravels, that has led to locating diamondiferous kimberlite-lamproites at Payalikhand-Bahradih areas of Raipur district, Madhya Pradesh.



**Shri Vijay Kumar Saxena**  
Directorate of Geology and  
Mining (M.P.)

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**Dr. Sanjay Khare**  
Directorate of Geology and  
Mining (M.P.)

*Dr. Sanjay Khare* of the Directorate of Geology and Mining, Madhya Pradesh along with his teammates have made significant contribution by confirming presence of path finder minerals and diamond in gravels, that has led to locating diamondiferous kimberlite-lamproites at Payalikhand-Bahradih areas of Raipur district, Madhya Pradesh.



**Shri R. R. Bisen**  
Directorate of Geology and  
Mining (M.P.)

*Shri R. R. Bisen*, of the Directorate of Geology and Mining, Madhya Pradesh along with his teammates have made significant contribution by confirming presence of path finder minerals and diamond in gravels, that has led to locating diamondiferous kimberlite-lamproites at Payalikhand-Bahradih areas of Raipur district, Madhya Pradesh.



**Shri P.K. Padlamwar**  
Directorate of Geology and  
Mining (M.P.)

*Shri P.K. Padlamwar* of the Directorate of Geology and Mining, Madhya Pradesh along with his teammates have made significant contribution by confirming presence of path finder minerals and diamond in gravels, that has led to locating diamondiferous kimberlite-lamproites at Payalikhand-Bahradih areas of Raipur district, Madhya Pradesh.



**Shri Harinder Pal Singh**  
Directorate of Geology and  
Mining (M.P.)

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**Shri Datta Mainkar**  
Directorate of Geology and  
Mining (M.P.)

*Shri Datta Mainkar* of the Directorate of Geology and Mining, Madhya Pradesh along with his teammates have made significant contribution by confirming presence of path finder minerals and diamond in gravels, that has led to locating diamondiferous kimberlite-lamproites at Payalikhand-Bahradih areas of Raipur district, Madhya Pradesh.

## Mineral Beneficiation



**Dr. Swades Kumar Basu**  
Geological Survey of India

*Dr. Swades Kumar Basu* of the Geological Survey of India has done outstanding work in establishing 7.76 million tonnes of additional phosphorite reserves from Purulia district of West Bengal with average grade of 7 to 10 percent  $P_2O_5$ . He has also evolved a genetic model for apatite-rare earth mineralization and its association with alkaline carbonatite magmatism that will serve as a guide for further exploration of rare earth bearing apatite deposits.

## Mineral Beneficiation



**Dr. M. R. Sekhar**  
Rajasthan State Mines and  
Mineral Limited

*Dr. M.R. Sekhar* of the Rajasthan State Mines and Mineral Limited has developed a variety of flotation processes for beneficiation of copper, lead, zinc, fluorspar, graphite and rock phosphate. He has successfully improved grade and recovery of zinc in zinc concentrates that has less iron and more silver.



**Dr. N.R. Mandre**  
Indian School of Mines

*Dr. N.R. Mandre* of the Indian School of Mines, Dhanbad has used hydrometallurgical techniques and developed leaching – flotation process by which 90 percent metals like copper, lead and zinc can be recovered. He has also contributed in heap leaching of low grade gold ore of Hutti Gold mines and thereby, making it possible to recover gold from low grade ores in India.

## Mineral Technology



**Shri B.K.P. Sinha**  
Hindustan Zinc Limited

*Shri B.K.P. Sinha* of the Hindustan Zinc Limited, Udaipur has been successfully developed mining concepts and practices for carrying out excavation in high – stress areas of Mochia Mine in Zawar area and thus utilizing a large tonnage of lead – zinc ore that would have been otherwise left out unmined. His other notable achievement is in enhancing the capacity of Rampura-Agucha open pit mine.

## Basic Geosciences



**Professor Pradip Kumar Bose**  
Jadavpur University

*Professor Pradip Kumar Bose* of the Jadavpur University, Kolkata has done outstanding research in establishing the stratigraphy of the Vindhyan Supergroup. He is also known for his paleobiological studies on the Bagh beds and sequence stratigraphy of the Chaibasa Formation.



**Professor Sudipta Sengupta**  
Jadavpur University

*Professor Sudipta Sengupta* of the Jadavpur University, Kolkata has done kinematic and geometric analysis of structures in Singhbhum shear zone leading to more information on their generation and evolutionary history. Her studies on various structural and metamorphic aspects of the East Antarctica are well known.



**Dr. Anand Mohan**  
Banaras Hindu University

*Dr. Anand Mohan* of the Banaras Hindu University has contributed significantly in the understanding of the metamorphic evolution of Indian granulites. His work on establishing inverted metamorphism in the Precambrian terrain of Darjeeling-Sikkim Himalayas is well recognized.

## Applied Geology



**Shri Rabindra Nath Ghosh**  
Geological Survey of India

*Shri Rabindra Nath Ghosh* of the Geological Survey of India has carried out innovative work in the engineering geology towards construction support in civil structures like dam, tunnel and power house. His noteworthy achievement has been in the construction of Sapua Earth Dam in Orissa that became cost effective due to the technological support provided by him besides stopping major seepages in Jambhira nala and Kalimati dams of Orissa.



**Dr. Pothuri Divakar Naidu**  
National Institute of  
Oceanography



**Dr. M.V. Ramana**  
National Institute of Oceanography



**Dr. Dipankar Sarkar**  
National Institute of Oceanography



**Dr. A. Apparao**  
National Geophysical Research Institute



**Dr. Y. J. Bhakar Rao**  
National Geophysical  
Research Institute

*Dr. Pothuri Divakar Naidu* of the National Institute of Oceanography, Goa has carried out in-depth study of South-West monsoon variability from Arabian Sea and established its strength in the past 20,000 years leading to the discovery of 2,200 years periodicity in the Asian Monsoon Climate System. He has proposed that deep water circulations have a profound influence and utility in long range forecasting of the South-West monsoon strength over the Indian sub-continent.

### **Geophysics**

*Dr. M.V. Ramana* of the National Institute of Oceanography, Goa has made significant contributions in the field of marine geophysics by producing tectonic map of the Bay of Bengal which has improved our understanding of crustal structure and evolutionary history of this area.

*Dr. Dipankar Sarkar* of the National Institute of Oceanography, Goa has carried out studies on Indian, European and American earthquakes that has resulted in compilation of an Atlas on Isoseismal Map of India.

*Dr. A. Apparao* formerly of the National Geophysical Research Institute, Hyderabad has done innovative work that has helped in prospecting of conducting minerals from the ground surface. His experiments on resistivity and designing induced polarization over synthetic samples has helped in defining the boundary between disseminated and massive ores.

### **Geochemistry**

*Dr. Y.J. Bhakar Rao* of the National Geophysical Research Institute, Hyderabad has established the state of the art geochronology laboratory in NGRI which has produced high quality ages of the Precambrian rock formations of Southern India. His work on the high resolution chrono-stratigraphy of Dharwar Supergroup has been of immense value.

## Coal Lignite (Team Award)



**Shri Saroj Kumar Barua**  
Geological Survey of India



**Shri D. N. Bandyopadhyay**  
Geological Survey of India



**Shri Dilip Kumar Das**  
Geological Survey of India



**Shri Sabyasachi Shome**  
Geological Survey of India

*Shri Saroj Kumar Barua* of the Geological Survey of India along with his team mates have unraveled the stratigraphic and structural setup of the virgin Tatapani - Ramkola coalfields in Madhya Pradesh through which it had been possible to delineate a potential block with about 147 millions tonnes of super grade coal over a stretch of 10 kilometer.

*Shri D. N. Bandyopadhyay* of the Geological Survey of India along with his team mates have unraveled the stratigraphic and structural setup of the virgin Tatapani - Ramkola coalfields in Madhya Pradesh through which it had been possible to delineate a potential block with about 147 millions tonnes of super grade coal over a stretch of 10 kilometer.

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## Environmental Geosciences Studies and Management

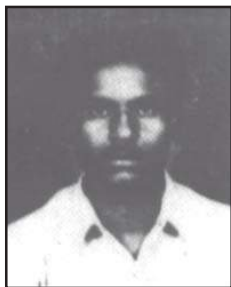


**Professor B. C. Raymahashay**  
Indian Institute of Technology

*Professor B. C. Raymahashay* of the Indian Institute of Technology, Kanpur has made significant contribution on the impact of chemical and mining industries on soils, sediments and natural water bodies. His work on the correlation of the ion exchange property of the secondary minerals generated during rock weathering with attenuation of pollutants in surface and subsurface water environment is of immense value.

## NATIONAL MINERAL AWARD – 1996

### Mineral Discovery (Team Award)



**Shri V.K. Shrivastava**  
Geological Survey of India  
Kolkata

*Shri V.K. Shrivastava* of the Atomic Mineral Division along with his coworkers has made outstanding contribution by discovering uranium deposits in Nalgonda district of Andhra Pradesh. The sustained and concerted exploration efforts of the team resulted in proving 1.75 million tonnes of uranium ore with an average grade of  $0.093 \text{ U}_3\text{O}_8$  at Lambapur and 3.75 million tonnes with an average grade of  $0.071 \text{ U}_3\text{O}_8$  at Peddagattu with in a shallow depth of 40 m.



**Shri R. M. Singha**  
Geological Survey of India,  
Kolkata

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**Shri T. N. Parthasarathy**  
Geological Survey of India

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### Mineral Discovery (Team Award)



**Shri Biplob Chatterjee**  
Geological Survey of India

*Shri Biplob Chatterjee* of the Geological Survey of India, Kolkata along with his teammates has made significant contribution by discovering diamondiferous kimberlite pipes in Payalikhanda, Bahradih and Kodomali areas of Raipur district, Madhya Pradesh by following a systematic approach. The remarkable work carried out by the team has opened up new vistas for exploration of diamond in several other areas of Chattisgarh, Orissa and Bihar.



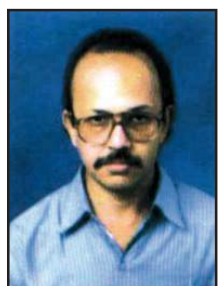
**Smt. Neeharika Jha**  
Geological Survey of India

*Smt. Neeharika Jha* of the Geological Survey of India, Kolkata along with his teammates has made significant contribution by discovering diamondiferous kimberlite pipes in Payalikhhand, Bahradih and Kodomali aeas of Raipur district, Madhya Pradesh by following a systematic approach. The remarkable work carried out by the team has opened up new vistas for exploration of diamond in several other areas of Chattisgarh, Orissa and Bihar.



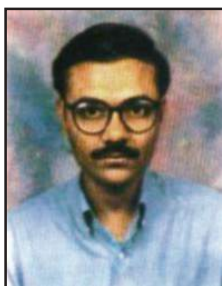
**Shri B.K. Mishra**  
Geological Survey of India

*Shri B.K. Mishra* of the Geological Survey of India, Kolkata along with his teammates has made significant contribution by discovering diamondiferous kimberlite pipes in Payalikhhand, Bahradih and Kodomali aeas of Raipur district, Madhya Pradesh by following a systematic approach. The remarkable work carried out by the team has opened up new vistas for exploration of diamond in several other areas of Chattisgarh, Orissa and Bihar.



**Dr. S.K. Deb**  
Geological Survey of India

*Dr. S.K. Deb* of the Geological Survey of India, Kolkata along with his teammates has made significant contribution by discovering diamondiferous kimberlite pipes in Payalikhhand, Bahradih and Kodomali aeas of Raipur district, Madhya Pradesh by following a systematic approach. The remarkable work carried out by the team has opened up new vistas for exploration of diamond in several other areas of Chattisgarh, Orissa and Bihar.



**Shri S. Ravi**  
Geological Survey of India

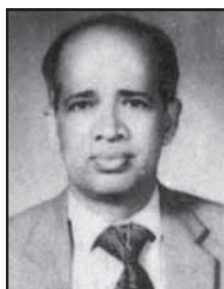
*Shri S. Ravi* of the Geological Survey of India, Kolkata along with his teammates has made significant contribution by discovering diamondiferous kimberlite pipes in Payalikhhand, Bahradih and Kodomali aeas of Raipur district, Madhya Pradesh by following a systematic approach. The remarkable work carried out by the team has opened up new vistas for exploration of diamond in several other areas of Chattisgarh, Orissa and Bihar.

## Mineral Beneficiation (Team Award)



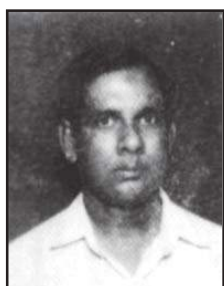
**Shri S.R. Shivananda**  
Atomic Mineral Division

*Shri S.R. Shivananda* of the Atomic Mineral Division, Hyderabad along with his coworkers has developed a beneficiation process of “Pug Cure Leaching” and demonstrated its technical and economic feasibility for extraction of uranium from the ore of Domiasiat in West Khasi Hills district, Meghalaya. This innovative technique of uranium extraction is better suited for these ores than the conventional method.



**Dr K.K. Dwivedy**  
Atomic Mineral Division

*Dr K.K. Dwivedy* of the Atomic Mineral Division, Hyderabad along with his coworkers has developed a beneficiation process of “Pug Cure Leaching” and demonstrated its technical and economic feasibility for extraction of uranium from the ore of Domiasiat in West Khasi Hills district, Meghalaya. This innovative technique of uranium extraction is better suited for these ores than the conventional



**Shri K.B. Mohanty**  
Atomic Mineral Division

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**Shri K. Viswamohan**  
Atomic Mineral Division

*Shri K. Viswamohan* of the Atomic Mineral Division, Hyderabad along with his coworkers has developed a beneficiation process of “Pug Cure Leaching” and demonstrated its technical and economic feasibility for extraction of uranium from the ore of Domiasiat in West Khasi Hills district, Meghalaya. This innovative technique of uranium extraction is better suited for these ores than the conventional

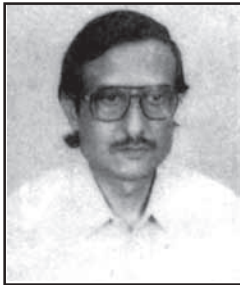
## Mining Technology



**Professor D. P. Singh**  
Banaras Hindu University

*Professor D.P. Singh* of the Banaras Hindu University has made significant contributions through his laboratory and field-oriented investigations in the field of rock drilling, slope stability, blasting and ground control ensuring safe mining practice. He has also established Equivalent Material Modelling techniques for simulating various geo-mining problems. He is credited with carrying out R&D work for increasing the anchorage of grouted rock bolt leading to improvements of safety and productivity in mines.

## Basic Geoscience



**Professor Somnath Dasgupta**  
Jadvapur University

*Professor Somnath Dasgupta* of the Jadvpur University, Kolkata has made outstanding contributions in the field of metamorphic petrology, ore geology and geochemistry. His research work on metamorphosed manganese deposits, Eastern Ghat granulites besides characterization and genetic interpretation of deep sea ferromanganese nodules is well recognized.



**Professor I. B. Singh**  
Lucknow University

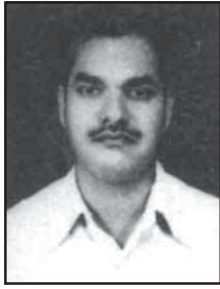
*Professor I.B. Singh* of the Lucknow University has made seminal contributions in the study of shallow marine sediments and developing new approaches in the stratigraphic studies. The comprehensive stratigraphic evolutionary model for the Late Quaternary history of the Ganga Plains proposed by him has immense scientific value.

## Applied Geology



**Shri S. C. Ghosh**  
Geological Survey of India

*Shri S.C. Ghosh* of the Geological Survey of India has made significant contributions to coal exploration and bio-stratigraphy of the Gondwana Formations through innovative application of Scanning Electron Microscope (SEM). His studies on geological materials by deciphering their ultrafine morphological structures and semi-quantitative chemical composition have led to their identification and classification.



**Dr. M. Veerayya**

National Institute of Oceanography

*Dr. M. Veerayya* of the National Institute of Oceanography, Goa has made significant contribution to the field of marine geology by recognizing various geomorphic features and shallow seismic characteristics of the western continental margin of India. He has indentified submarine terraces, sand ridges and correlated their position with palaeo -sea levels and palaeo - climate conditions during the late Quaternary.

### **Geophysics**



**Dr. D.C. Mishra**

National Geophysical Research  
Institute

*Dr. D. C. Mishra* of the National Geophysical Research Institute, Hyderabad has made significant contribution in planning, execution and monitoring of gravity and magnetic surveys, processing and modelling of data sets and their integration with other available geophysical data in Peninsular India. He has also modelled the gravity- magnetic data from the west and east coasts of India, Arabian Sea, Bay of Bengal, Antarctica and Himalayas to understand the break-up and drift history of Indian plate.

### **Geochemistry**



**Professor Mihir Deb**

University of Delhi

*Professor Mihir Deb* of the University of Delhi has made detailed petrological – geochemical characterization of ores and the host rocks leading to quantitative estimates of the physico-chemical parameters of their emplacement. His contributions on isotopic geochemistry of sulphide ore deposits and their implications on the ore forming environments have provided a modern perspective to metallogenesis in Rajasthan.



**Professor J.A.K. Tareen**

Mysore University

*Professor J.A.K. Tareen* of the Mysore University has carried out research leading to a better understanding of some fundamental processes operating in the earth's interior and during the formation of certain mineral assemblages. His study has provided new insights into the granulite mineral paragenesis and on granitic systems

## Coal and Lignite



**Shri P.N. Chaudhuri**  
Geological Survey of India



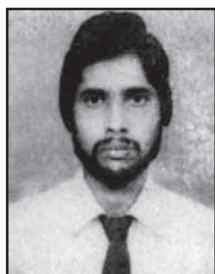
**Shri J.K. Ghosh**  
Geological Survey of India



**Shri D. Bhattacharya**  
Geological Survey of India



**Shri S. Chakraborty**  
Geological Survey of India



**Dr. G. Chattopadhyay**  
Geological Survey of India

*Shri P.N. Chaudhuri* of the Geological Survey of India has applied a tectono-sedimentary model for basin analysis and exploration of coal in Talcher coal field in Orissa. The exploration work of this team has resulted in augmenting the coal reserves to the tune of 2.63 billion tonnes of which 108.47 million tonnes are of superior quality thereby raising its status to the top among the power grade coal deposits of India.

*Shri J.K. Ghosh* of the Geological Survey of India has applied a tectono-sedimentary model for basin analysis and exploration of coal in Talcher coal field in Orissa. The exploration work of this team has resulted in augmenting the coal reserves to the tune of 2.63 billion tonnes of which 108.47 million tonnes are of superior quality thereby raising its status to the top among the power grade coal deposits of India.

*Shri D. Bhattacharya* of the Geological Survey of India has applied a tectono-sedimentary model for basin analysis and exploration of coal in Talcher coal field in Orissa. The exploration work of this team has resulted in augmenting the coal reserves to the tune of 2.63 billion tonnes of which 108.47 million tonnes are of superior quality thereby raising its status to the top among the power grade coal deposits of India.

*Shri S. Chakraborty* of the Geological Survey of India has applied a tectono-sedimentary model for basin analysis and exploration of coal in Talcher coal field in Orissa. The exploration work of this team has resulted in augmenting the coal reserves to the tune of 2.63 billion tonnes of which 108.47 million tonnes are of superior quality thereby raising its status to the top among the power grade coal deposits of India.

*Dr. G. Chattopadhyay* of the Geological Survey of India has applied a tectono-sedimentary model for basin analysis and exploration of coal in Talcher coal field in Orissa. The exploration work of this team has resulted in augmenting the coal reserves to the tune of 2.63 billion tonnes of which 108.47 million tonnes are of superior quality thereby raising its status to the top among the power grade coal deposits of India.



**Shri P. K. Mohanty**  
Geological Survey of India



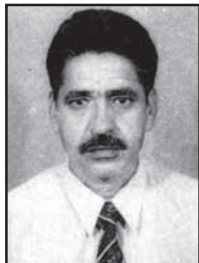
**Shri A. G. Pramanik**  
Oil and Natural Gas Corp. Ltd.



**Dr. Anil Joshi**  
Geological Survey of India



**Dr. N. C. Pant**  
Geological Survey of India



**Dr. B.R. Bejarniya**  
Geological Survey of India

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### **Oil and Gas**

*Shri A. G. Pramanik* of the Oil and Natural Gas Corporation Limited has made significant contribution in the discovery and delineation of hydrocarbon-producing fields in various basins of Western Region, Bombay Offshore and Southern Region. He organized and conducted 3-D survey and first long offset Transient Electromagnetic (TEM) Survey which provided a new dimension to exploration and interpretation work.

### **Scientific Expedition (Team Award)**

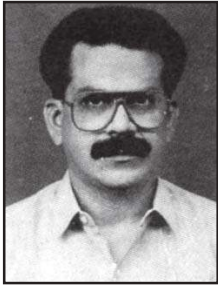
*Dr. Anil Joshi* of the Geological Survey of India, Faridabad along with his coworkers participated in the Indian Antarctic Expeditions and made significant contributions to the crustal evolution in parts of Antarctica. The research work carried out by the team on the magmatic evolution of the central Dronning Maud Land particularly on the granite and anorthosite-charnockite genesis is well recognized.

*Dr. N. C. Pant* of the Geological Survey of India, Faridabad along with his coworkers participated in the Indian Antarctic Expeditions and made significant contributions to the crustal evolution in parts of Antarctica. The research work carried out by the team on the magmatic evolution of the central Dronning Maud Land particularly on the granite and anorthosite-charnockite genesis is well recognized.

*Dr. B.R. Bejarniya* of the Geological Survey of India, Faridabad along with his coworkers participated in the Indian Antarctic Expeditions and made significant contributions to the crustal evolution in parts of Antarctica. The research work carried out by the team on the magmatic evolution of the central Dronning Maud Land particularly on the granite and anorthosite-charnockite genesis is well recognized.

## NATIONAL MINERAL AWARD – 1995

### Mineral Discovery (Team Award)



**Dr. R.V.G. Nair**  
Geological Survey of India

*Dr. R.V.G. Nair*, of the Geological Survey of India, Thiruvananthapuram along with his colleague has discovered primary gold mineralization in the Attapadi Velley of Kerala. The sustained exploration efforts of the team resulted in delineating a 23 km long and 5-6 km wide gold bearing belt with an average grade of gold at 10 gram/tonne.



**Dr. M.M Nair**  
Geological Survey of India

*Dr. M. M Nair* of the Geological Survey of India, Thiruvananthapuram along with his colleague has discovered primary gold mineralization in the Attapadi Velley of Kerala. The sustained exploration efforts of the team resulted in delineating a 23 km long and 5-6 km wide gold bearing belt with an average grade of gold at 10 gram/tonne.

### Mineral Exploration (Team Award)



**Shri P.S. Rao**  
Geological Survey of India

*Shri P.S. Rao* formerly of the Geological Survey of India, Chennai along with his coworkers has made significant contribution towards exploration of molybdenum in Dharmapuri district of Tamil Nadu. The exploration carried out by the team resulted in identification of a prominent zone of mineralization along a 28 km long shear zone with an estimated reserve of 2.9 million tonnes at a cut off grade of 0.05% molybdenum within a depth of 260 m.



**Dr. T.A. Selvan**  
Geological Survey of India

*Dr. T.A. Selvan* of the Geological Survey of India, Chennai along with his coworkers has made significant contribution towards exploration of molybdenum in Dharmapuri district of Tamil Nadu. The exploration carried out by the team resulted in identification of a prominent zone of mineralization along a 28 km long shear zone with an estimated reserve of 2.9 million tonnes at a cut off grade of 0.05% molybdenum within a depth of 260 m.



**Dr. T.M. Ganesan**  
Geological Survey of India



**Shri V. Palanisamy**  
Geological Survey of India,  
Kolkata



**Shri M. Shanmugam**  
Geological Survey of India



**Shri S. Singanenam**  
Geological Survey of India



**Dr. J.P. Barnwal**  
Regional Research Laboratory

*Dr. T.M. Ganesan* of the Geological Survey of India, Chennai along with his coworkers has made significant contribution towards exploration of molybdenum in Dharmapuri district of Tamil Nadu. The exploration carried out by the team resulted in identification of a prominent zone of mineralization along a 28 km long shear zone with an estimated reserve of 2.9 million tonnes at a cut off grade of 0.05% molybdenum within a depth of 260 m.

*Shri V. Palanisamy* of the Geological Survey of India, Chennai along with his coworkers has made significant contribution towards exploration of molybdenum in Dharmapuri district of Tamil Nadu. The exploration carried out by the team resulted in identification of a prominent zone of mineralization along a 28 km long shear zone with an estimated reserve of 2.9 million tonnes at a cut off grade of 0.05% molybdenum within a depth of 260 m.

*Shri M. Shanmugam* of the Geological Survey of India, Chennai along with his coworkers has made significant contribution towards exploration of molybdenum in Dharmapuri district of Tamil Nadu. The exploration carried out by the team resulted in identification of a prominent zone of mineralization along a 28 km long shear zone with an estimated reserve of 2.9 million tonnes at a cut off grade of 0.05% molybdenum within a depth of 260 m.

*Shri S. Singanenam* of the Geological Survey of India, Chennai along with his coworkers has made significant contribution towards exploration of molybdenum in Dharmapuri district of Tamil Nadu. The exploration carried out by the team resulted in identification of a prominent zone of mineralization along a 28 km long shear zone with an estimated reserve of 2.9 million tonnes at a cut off grade of 0.05% molybdenum within a depth of 260 m.

### **Mineral Beneficiation (Team Award)**

*Dr. J.P. Barnwal* of the Regional Research Laboratory along with his coworker has done critical data analysis and extensive mathematical modelling work on complex mineral and coal processing unit operations resulting in substantial improvement in plant performance and enrichment of mineral ores.



**Dr. B. Govindarajan**

Regional Research Laboratory

*Dr. B. Govindarajan* of the Regional Research Laboratory along with his coworker has done critical data analysis and extensive mathematical modelling work on complex mineral and coal processing unit operations resulting in substantial improvement in plant performance and enrichment of mineral ores.

### **Mineral Beneficiation**



**Professor R. Venugopal**

Regional Research Laboratory

*Professor R. Venugopal* of the Indian School of Mines, Dhanbad has developed beneficiation strategies for dump manganese ore besides carrying out pelletization studies for beneficiated manganese, magnetite and limestone fines.

### **Mining Technology**



**Shri G. S. Khuntia**

Steel Authority of India Ltd.

*Shri G.S Khuntia* of the Steel Authority of India Limited has made significant contribution particularly in the area of production, quality improvement and future expansion of steel industry. He is credited with having achieved higher productivity with quality control Kiriburu/Meghataburu, Barusa, Kalta and Dalli iron ore mines.

### **Geology : Stratigraphy, Structural Geology, Tectonics Petrology, Paleontology, Mineralogy, Seismotectonics, Remote Sensing**



**Professor D. Mukhopadhyay**

Calcutta University

*Professor D. Mukhopadhyay*, of the Calcutta University has made original contribution on fundamental aspects of structural geology. His studies on Precambrian belts of Singhbhum, Karnataka and Rajasthan have thrown new light on thermo-tectonic and stratigraphic evolution of these terrains.



**Dr. S. Sengupta**

Geological Survey of India

*Dr. S. Sengupta* of the Geological Survey of India, Kolkata has carried out valuable research in understanding the intricate crustal processes in geologically complex areas of Indian craton and Himalayan terrain. His studies on basaltic volcanism in northeastern Himalaya and the peri-Indian ophiolites are important in context of global geodynamics.



**Professor R. K. Lal**  
Banaras Hindu University

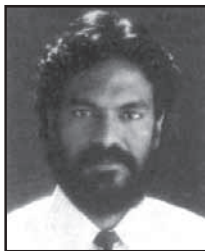
*Professor R. K. Lal* of the Banaras Hindu University has made outstanding contributions in the field of metamorphic petrology, mineralogy and mineralogical thermodynamics pertaining to Precambrian rocks of different terrains of India

**Applied Geology  
(Team Award)**



**Dr. A. Bhattacharya**  
National Remote Sensing  
Agency

*Dr. A. Bhattacharya* of the National Remote Sensing Agency along with his coworkers has done extensive research on remote sensing techniques for geological application in coal mine fire mapping. The team has prepared 1:4,000 scale maps of new mine fire, fire prone areas and rate of fire movement which are highly useful for effective fire fighting operations and strategic planning of mining activities.



**Shri C.S.S Reddy**  
National Remote Sensing  
Agency

*Shri C.S.S Reddy* of the National Remote Sensing Agency along with his coworkers has done extensive research on remote sensing techniques for geological application in coal mine fire mapping. The team has prepared 1:4,000 scale maps of new mine fire, fire prone areas and rate of fire movement which are highly useful for effective fire fighting operations and strategic planning of mining activities.



**Shri Manoj Dangwal**  
National Remote Sensing Agency

*Shri Manoj Dangwal* of the National Remote Sensing Agency along with his coworkers has done extensive research on remote sensing techniques for geological application in coal mine fire mapping. The team has prepared 1:4,000 scale maps of new mine fire, fire prone areas and rate of fire movement which are highly useful for effective fire fighting operations and strategic planning of mining activities.

**Applied Geology**



**Dr. O.S Chauhan**  
National Institute of Oceanography

*Dr. O.S Chauhan* of the National Institute of Oceanography, Goa has done research on marine processes in Northern Indian Ocean, beach sediment dynamics and shoreline changes besides identification of areas susceptible to neotectonic activity. His studies have also thrown light into the variations in the intensity of palaeo-monsoon and past climate during Late Pleistocene in the Arabian Sea and Bay of Bengal.



**Dr. S. M. Gupta**

National Institute of Oceanography

*Dr. S. M. Gupta* of the National Institute of Oceanography, Goa has discovered 35 new species of Ichthyoliths from the nuclei and substrates of manganese nodules and has modified the alphanumeric system in ichthyolith taxonomy. His research has shown that monsoon has strengthened since last 9 Ma besides explaining the influence of the Antarctic bottom water current for genesis of manganese module deposits in the Central Indian Ocean Basin.



**Professor I.V. Radhakrishna Murthy**

Andhra University

## Geophysics

*Professor I.V. Radhakrishna Murthy* of the Andhra University has made significant contribution in interpretation of gravity and magnetic data. He is credited with development of nomograms, interpretational aids and computer software that are widely used.



**Professor B.B. Bhattacharya**

Indian School of Mines

*Professor B. B. Bhattacharya* of the Indian School of Mines, Dhanbad has applied non-linear inversion to the resistivity problems with the help of Simulated Annealing Techniques for geo-electrical data interpretation. He has demonstrated the usefulness of well log data in making reliable evaluation of coal seams with regard to their thickness, ash, carbon and moisture content, and the formation strength parameters needed for mine planning and design.



**Dr. P. R. Reddy**

National Geophysical Research Institute

*Dr. P. R. Reddy* of the National Geophysical Research Institute, Hyderabad has done seismological studies that have helped in delineating deep crustal velocity structure along different profiles located in Cuddapah, West Bengal basins, Koyna region Narmada-Son lineament and below Deccan Trap of Saurashtra region.



**Professor A. S. Janardhan**

Mysore University

## Geochemistry

*Professor A. S. Janardhan* of the Mysore University has done pioneering studies on the granulites of Southern India leading to the understanding of the role of fluids enriched in carbon dioxide in the origin of granulite facies charnockites. His work also contributed to the understanding of lower crustal processes during late Archaean-Mid Proterozoic.

## Coal & Lignite (Team Award)



**Shri K.K. Sen**  
Geological Survey of India



**Shri R. Bandyopdhyay**  
Geological Survey of India



**Shri B.S. Jodha**  
Geological Survey of India



**Shri Atanu Ray**  
Geological Survey of India



**Dr. D.K. Trehan**  
Oil and Natural Gas Corp. Ltd.

*Shri K.K. Sen* of the Geological Survey of India, Kolkata along with his coworkers has done reconstruction of paleo-sedimentary environmental facies model and its utilization as a method for coal exploration. The team is credited with establishing coal reserves of 4460 million tonnes in Birbhum coalfield and identifying the locales of coal deposit at quarriable depths in less explored Mahnagarhi and Panchwara basins.

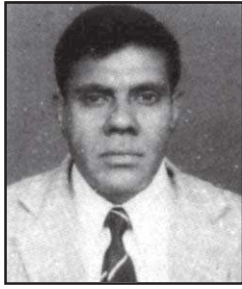
*Shri R. Bandyopdhyay* of the Geological Survey of India, Kolkata along with his coworkers has done reconstruction of paleo-sedimentary environmental facies model and its utilization as a method for coal exploration. The team is credited with establishing coal reserves of 4460 million tonnes in Birbhum coalfield and identifying the locales of coal deposit at quarriable depths in less explored Mahnagarhi and Panchwara basins.

*Shri B.S. Jodha* of the Geological Survey of India, Kolkata along with his coworkers has done reconstruction of paleo-sedimentary environmental facies model and its utilization as a method for coal exploration. The team is credited with establishing coal reserves of 4460 million tonnes in Birbhum coalfield and identifying the locales of coal deposit at quarriable depths in less explored Mahnagarhi and Panchwara basins.

*Shri Atanu Ray* of the Geological Survey of India, Kolkata along with his coworkers has done reconstruction of paleo-sedimentary environmental facies model and its utilization as a method for coal exploration. The team is credited with establishing coal reserves of 4460 million tonnes in Birbhum coalfield and identifying the locales of coal deposit at quarriable depths in less explored Mahnagarhi and Panchwara basins.

## Oil and Gas

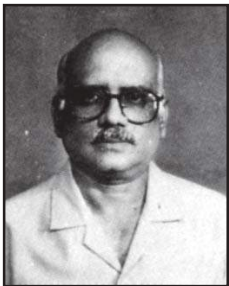
*Dr. D.K. Trehan* of the Oil and Natural Gas Corporation Limited has made contribution in the field of oil exploration by induction of new seismic and log interpretation technologies and optimizing recovery factor to sustain planned production profile. He pioneered the introduction of off-shore 3-D work as well as gravity data acquisition in the western and eastern offshore basin Of India.



**Shri E.V.R. Parthsaradhi**  
Geological Survey of India

### **Dissemination of Scientific Information (Team Award)**

*Shri E.V.R. Parthsaradhi* of the Geological Survey of India, Hyderabad along with his coworker has devised a methodology of automated cartography in the pre-press map preparation stage leading to speedier geo-scientific map production.



**Dr. P. Prakash**  
Geological Survey of India

*Dr. P. Prakash* of the Geological Survey of India, Hyderabad along with his coworker has devised a methodology of automated cartography in the pre-press map preparation stage leading to speedier geo-scientific map production.



**Professor A.K. Ghose**  
Bengal Engineering College

### **Dissemination of Scientific information**

*Professor A.K. Ghose* of Bengal Engineering College has carried out pioneering research on roof bolting, application of rock mass classification which have found wide acceptance and application by the industry. He has substantially contributed towards dissemination of scientific data through his publications and editorship of several national and international journals and books.

# **YOUNG RESEARCHER AWARD**

### Young Researcher Award - 2012



**Dr. Vikram Vishal**  
Indian Institute of Technology

*Dr. Vikram Vishal* of Indian Institute of Technology, Roorkee, has done exceptional research in the field of carbon sequestration. He has done geochemical characterization of the coal measures in Jharia and Raniganj coalfields and application of soft computing for prediction of key rock- physical parameters.

### Young Researcher Award-2010



**Shri Yogesh Ray**  
Wadia institute Of Himalayan  
Geology

*Shri Yogesh Ray* of Wadia institute of Himalayan Geology, Dehradun, has done outstanding research on Proterozoic to Holocene sedimentary sequences deposited under varied climatic spectrum. His studies on the Quaternary geology and geomorphology of Himalaya have provided significant information on the role of climate and tectonics in the development of the landforms.

### Young Researcher Award – 2009



**Shri. Ashish Namdeo Dongare**  
Institute of Science

*Shri. Ashish Namdeo Dongare* of Institute of Science, Aurangabad has made extensive petrological and geochemical studies on the kimberlite pipes of the Narayanpet and Raichur area in the eastern Dharwar craton and lamproites of Krishna lamproite field, southern India. He has for first time reported the occurrence of carbonate xenoliths hosted by the Mesoproterozoic Siddanpalli kimberlite cluster in Raichur kimberlite field.

## **LIST OF THE INSTITUTIONS / ORGANISATIONS OF NATIONAL GEOSCIENCE AWARDEES**

- 1 Andhra University, Visakhapatnam
- 2 Amicable Knowledge Solution University, Satna, Madhya Pradesh
- 3 Associated Stone Industry Limited, Kotah, Rajasthan
- 4 Atomic Minerals Directorate for Exploration & Research, Hyderabad  
(former Atomic Minerals Division, Hyderabad)
- 5 Banaras Hindu University, Varanasi
- 6 Bangalore University, Bangalore
- 7 Bengal Engineering College, Kolkata
- 8 Birbal Sahni Institute of Palaeobotany, Lucknow
- 9 Center for Earth Science Studies, Thiruvananthapuram
- 10 Center for Mathematical Modelling & Computer Simulation, Bengaluru
- 11 Central Building Research Institute, Roorkee
- 12 Central Ground Water Board, Patna
- 13 Central Institute of Mining and Fuel Research, Dhanbad
- 14 Central Mine Planning and Design Institute, Ranchi
- 15 Central Mining Research Institute, Roorkee
- 16 Coal India Limited, Kolkata
- 17 Directorate of Geology and Mining, Bhopal, Madhya Pradesh
- 18 Geological Survey of India
- 19 Hindustan Zinc Limited, Udaipur
- 20 Hutti Gold Mines Company Limited, Karnataka
- 21 India Meteorological Department, New Delhi
- 22 Indian Bureau of Mines, Nagpur
- 23 Indian Institute of Geomagnetism, Mumbai
- 24 Indian Institute of Science, Bengaluru
- 25 Indian Institute of Technology, Bombay
- 26 Indian Institute of Technology, Kanpur
- 27 Indian Institute of Technology, Kharagpur
- 28 Indian Institute of Technology, Mumbai

- 29 Indian Institute of Technology, Roorkee
- 30 Indian National Centre for Ocean Information Services, Hyderabad
- 31 Indian School Of Mines University, Dhanbad
- 32 Indian Space Research Organisation, Ahmedabad
- 33 Indian Statistical Institute, Kolkata
- 34 Institute of Mineral & Materials Technology, Bhubaneswar
- 35 Institute of Science, Aurangabad
- 36 Jadavpur University, Kolkata
- 37 Jai Narain Vyas University, Jodhpur
- 38 Jawaharlal Nehru Technological University, Hyderabad
- 39 Jawharlal Nehru University, Delhi
- 40 Keshav Dev Malaviya Institute for Petroleum Exploration , Dehradun
- 41 Lucknow University, Lucknow,
- 42 Maharaja Sayajirao University, Baroda
- 43 Maharana Pratap University of Agriculture and Technology, Udaipur
- 44 Mineral Exploration Corporation Limited, Nagpur
- 45 MSPL Limited, Hosepet, Karnataka
- 46 Nanyang Technical University, Singapore
- 47 National Centre for Antarctic & Ocean Research, Vasco-Da-Gama,
- 48 National Geophysical Research Institute, Hyderabad
- 49 National Institute of Ocean Technology, Chennai
- 50 National Institute of Oceanography, Goa
- 51 National Institute of Rock Mechanics, KGF
- 52 National Metallurgical Laboratory, Chennai
- 53 National Mineral Development Corporation, Hyderabad
- 54 National Remote Sensing Agency, Hyderabad
- 55 Neyveli Lignite Corporation Limited, Neyveli
- 56 Oil and Natural Gas Corporation Limited, Dehradun
- 57 Osmania University, Hyderabad
- 58 Panjab University, Chandigarh
- 59 Physical Research Laboratory, Ahmedabad

- 60 Presidency University, Kolkata (former Presidency College, Kolkata)
- 61 R.K. Marbles Private Limited, Udaipur
- 62 Rajasthan State Mineral And Mining, Rajasthan, Udaipur
- 63 Ramgad Minerals & Mining Limited, Hosepet, Karnataka
- 64 Regional Research Laboratory, Bhopal
- 65 Reliance Industry, Mumbai
- 66 School of Earth Science, SRTM University, Nanded, Maharashtra
- 67 Steel Authority of India Limited, Ranchi
- 68 Tata Steel, Jamshedpur
- 69 University of Calcutta, Kolkata
- 70 University of Delhi, Delhi
- 71 University of Mysore, Mysore
- 72 University of Pune, Pune
- 73 Uranium Corporation Of India, Jaduguda
- 74 Wadia Institute of Himalayan Geology, Dehradun

**MINISTRY OF MINES**

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