


SCIENCE AND
TECHNOLOGY
EXCELLENCE

2012



The background of the entire page is a stylized illustration in shades of yellow and orange. It features a large, central sun with a circular face and radiating rays. Below the sun are rolling hills or mountains, depicted with simple, rounded shapes. The overall aesthetic is clean and modern, with a warm, golden color palette.

UTTARAKHAND STATE
COUNCIL FOR SCIENCE
& TECHNOLOGY, DEHRADUN
UTTARAKHAND



AWARDEES
2012



DR. MANJU SHARMA

LIFE SCIENCES



Padma bhushan Dr. Manju Sharma accoladed as the revolutionary woman biotechnologist, was instrumental in structuring the organizational framework and institutional mechanism of biotechnology in India. She is considered as a 'Role Model' for the young women scientists & Science administrators of the country as well as women scientists from Uttarakhand.

By training a Plant Scientist; she pursued her Post-doctoral research at Purdue University, USA trailed by the position of a visiting scientist at the Institute of Plant Anatomy and Cytology at the University of Copenhagen and then at the Forest Research Institute, Dehradun. From 1974 onwards, working in the Department of Science and Technology, Planning Commission, Office of Scientific Adviser to the PM, and Department of Biotechnology, she has played an important role in promoting science and technology in general and biosciences in particular. The great visionary has initiated and promoted many successful programmes in diverse areas. She has been largely responsible for progressing the establishment of a number of new institutions; to name a few - the National Institute of Immunology, New Delhi; the first two Biomass Research Centres at NBRI, Lucknow and Madurai Kamaraj University, Madurai; Plant Molecular Biology Unit at Delhi University and more recently, the Center for DNA Finger Printing and Diagnostics at Hyderabad, Plant Genome Research Center, JNU, New Delhi; National Brain Research Center, New Delhi etc. A new Institute of Bioresources and Sustainable Development has been recently established in North Eastern State of Manipur with her initiative. She has been responsible for conceptualising the setting up of the Biotech Consortium India Ltd., establishment of a Biovillage in Gujarat and a Golden Jubilee Women's Biotechnology Park at Chennai.

She has been an elected member of the Executive Committee and Council of the Indian Science Congress Association, nominated member of many State Planning Boards and has served as Chairperson and Member Secretary of many important scientific Committees, Task Forces and Research Advisory Councils. She was



FOR HER DISTINGUISHED AND OUTSTANDING CONTRIBUTION TOWARDS ELEVATING THE STATUS OF SCIENCE & TECHNOLOGY IN INDIA OVER THE PAST 40 YEARS

the President of The National Academy of Sciences (the only lady scientist to occupy the position of President in any of the Science Academies of India), General President of the Indian Science Congress Association in 1998; President of the Association of Microbiologists of India (AMI) for the year 1999, Vigyan Parishad, Allahabad, Fellow of many academies like the Third World Academy of Sciences, National Academy of Agricultural Sciences, Indian Science Writers' Association (ISWA) and National Academy of Sericultural Sciences etc.

In view of her outstanding contributions, she has been conferred numerous prestigious awards. She is the recipient of VASVIK Award (1994); the Norman E. Borlaug Award (1995), Distinguished Scientist Award from the Indian Science Congress Association, Dr. B.P. Pal Memorial Award-2001, G.M. Modi Science Award 2002, Delhi Ratan in November 2003, Life Time Achievement Awards of the Indian Science Congress Association and as well as from BIOSPECTRUM (2004), NASI's Platinum Jubilee Gold Medal (2006) and National Senior Women Bioscientist Award (2007). She was also chosen as a member of Hall of Fame of the International Conference on "Women: Biotechnology, Environment & Non-Conventional Energy" organised by ICT and the Third World Organization of Women Scientists.

The ever effervescent, dynamic and vibrant lady even after superannuating in 2004 is actively involved in S&T promotion nationally. Apart from working as Adviser to the Minister of Science & Technology briefly, she is currently the President and Executive Director of a new institute called Indian Institute of Advanced Research in Gandhinagar, Gujarat. Concurrently she is also appointed as the Chief Scientific Advisor to the State Government of Uttarakhand for the establishment of Uttarakhand Science, Technology and Education Centre.



PROF. D.C. THAPLIYAL VETERINARY SCIENCES

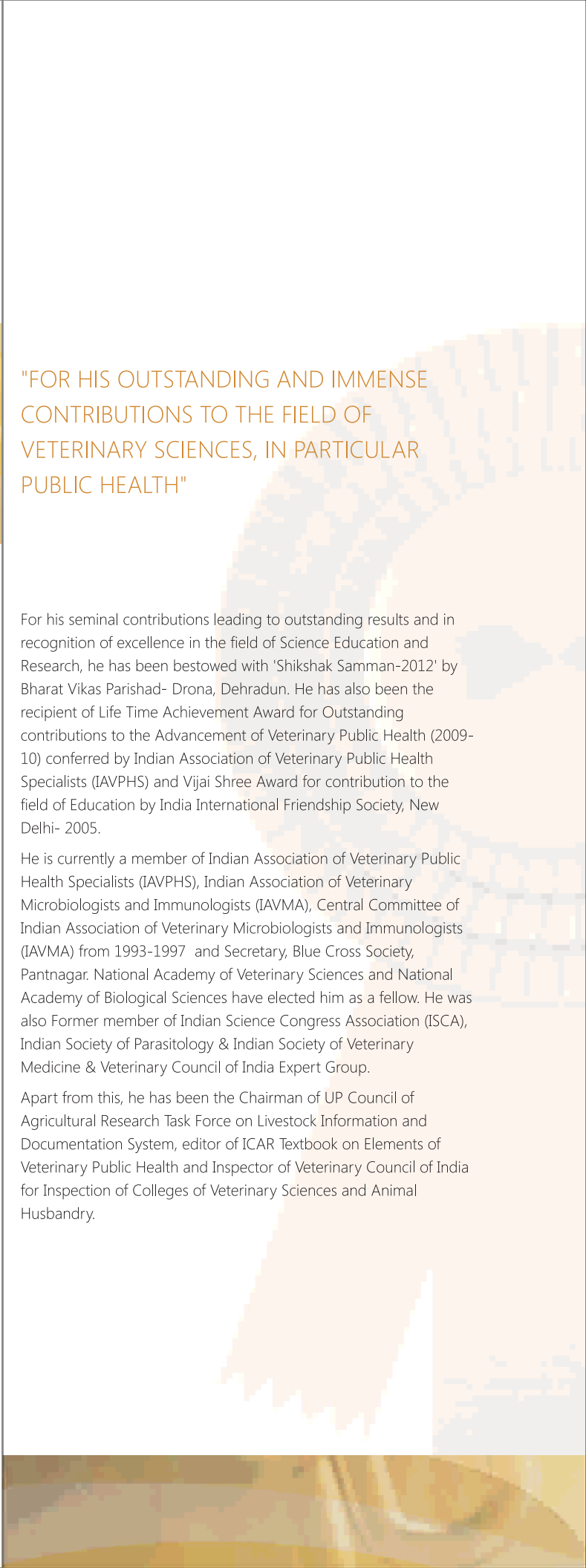


Born in July 1944 at Pauri Garhwal, Prof Thapliyal has nearly 40 years of experience in university teaching, research and education administration. He pursued Bachelors and Masters in Veterinary Sciences with specialization in Hygiene & Public health and earned his Ph.D in 1978 at G.B. Pant University of Agriculture and Technology on Microbiology & Public health. Indisputably, he is the first public health veterinarian in the state.

He was a visiting scientist at the Department of Medicine, College of Veterinary Medicine, University of Baghdad during 1980-83. He adorned the chair of full professorship in 1998 and later taking charge of Registrar, GB Pant University of Agri & Tech, Pantnagar from 2002-2004. Concurrently he was also Head of Deptt. of Veterinary Public Health, Pantnagar University since 1998. Apart from this, he was also Vice president/ Manager of Pantnagar Intermediate College managed by University itself.

After his superannuation he became Project Director as well as State coordinator of Agriculture Technology Management Agency (ATMA) from 2005 to 2006. In recognition for his exemplary achievements and commitment to excellence, he was instituted as Founder Registrar and OSD, Doon University, Dehradun from 2006 to 2008.

As a most coveted educator he has guided innumerable M.V.Sc. students and research programmes of many Ph.D. scholars. He has nearly 13 books and 182 research papers, book chapters, invited papers to his credit. As a leading veterinarian many projects have seen the light of the day under his supervision. To name a few -Sero-epidemiology of brucellosis in animals and man in the hills and Western districts of Uttar Pradesh (UPCAR), Weather based animal disease forecasts (NATP), Development of an attenuated sheep pox vaccine (1984-85, ICAR), Sheep, goat and pigs as reservoirs of Brucella infection for man, Enteropathogenicity of *E. coli*, *Salmonella weltevreden* and *Yersinia enterocolitica*, immunogenicity of soluble antigens of *Brucella abortus*, Antibiotic residues in milk, and Microbiological evaluation of foods of animal origin.



"FOR HIS OUTSTANDING AND IMMENSE CONTRIBUTIONS TO THE FIELD OF VETERINARY SCIENCES, IN PARTICULAR PUBLIC HEALTH"

For his seminal contributions leading to outstanding results and in recognition of excellence in the field of Science Education and Research, he has been bestowed with 'Shikshak Samman-2012' by Bharat Vikas Parishad- Drona, Dehradun. He has also been the recipient of Life Time Achievement Award for Outstanding contributions to the Advancement of Veterinary Public Health (2009-10) conferred by Indian Association of Veterinary Public Health Specialists (IAVPHS) and Vijai Shree Award for contribution to the field of Education by India International Friendship Society, New Delhi- 2005.

He is currently a member of Indian Association of Veterinary Public Health Specialists (IAVPHS), Indian Association of Veterinary Microbiologists and Immunologists (IAVMA), Central Committee of Indian Association of Veterinary Microbiologists and Immunologists (IAVMA) from 1993-1997 and Secretary, Blue Cross Society, Pantnagar. National Academy of Veterinary Sciences and National Academy of Biological Sciences have elected him as a fellow. He was also Former member of Indian Science Congress Association (ISCA), Indian Society of Parasitology & Indian Society of Veterinary Medicine & Veterinary Council of India Expert Group.

Apart from this, he has been the Chairman of UP Council of Agricultural Research Task Force on Livestock Information and Documentation System, editor of ICAR Textbook on Elements of Veterinary Public Health and Inspector of Veterinary Council of India for Inspection of Colleges of Veterinary Sciences and Animal Husbandry.

PROF. ANANT KUMAR PANT

ENGINEERING & COMPUTER SCIENCES



He has nearly 48 years of academic experience in Systems Engineering, Operations Research and Optimization. Born on 30th June, 1943 at Almora, Prof Anant Kumar Pant did his schooling at GIC Almora, and was bestowed with Tarak Jayanti medal for standing first in the college. After completing his B. Sc. from Lucknow, he then joined Roorkee University where he excelled in studies and extracurricular studies and passed his B. E. and M. E. with honours.

He started his teaching career in Feb 1965 at Roorkee and served for more than forty years before retiring in 2005. While in service he went to Sussex University at Brighton, U. K. on a Commonwealth Scholarship to carry out his doctoral research on Optimization of Resource utilization. Currently he is Professor and Director of Birla Institute of Applied Sciences from August 2005, where he continues to teach and guide research programmes besides his administrative responsibilities.

Prof Pant has been a pioneer in Systems Engineering Education in the country, playing a key role in initiating the first postgraduate programme in 1969 at Roorkee University which is now IIT Roorkee. He has been active in teaching and research area. He has guided a number of doctoral and masters candidates and published more than 50 papers. He has even coauthored a book on Electrical Science. He has been deeply involved in Educational Technology and reforms. He was Honorary Director of UGC's Audio Visual Research Centre at Roorkee, responsible for making video films for Door Darshan's Country wide class room programme. As Dean of Academic programmes, he restructured the Undergraduate and post graduate curriculum of the University. The Systems Society of India has recognized his contributions by electing him as a Fellow of the Society. He is also the Life member of National Association for Quality & Reliability, Society for Continuing Education and Indian Society for Technical Education.



“FOR HIS OUTSTANDING AND IMMENSE CONTRIBUTIONS TO THE FIELD OF SYSTEMS ENGINEERING EDUCATION”

Apart from this, he was also involved in energy issues, sustainable development, use of technology in rural areas and has coordinated numerous projects related to development of Uttarakhand. He was Chairman of Central Himalayan Environmental Association for three years and a member of a regional project on Himalayan resources which was basically a precursor to SAARC. Additionally, he was also the Principal coordinator of a Project on Industrial Automation and Robotics from 1993-96. A major UNDP project on "Pro-poor IT initiatives in Uttaranchal" and "Uttarakhand Government Project on e-Governance" was also coordinated by him. Furthermore, he has been a member of International project on regional collaboration; in selection committees/Review committees/Academic boards/Examinerships of academic institutions including IITs and UPSC/UPPSC; member of the advisory committee of energy regulatory authority and Editor of Paritantra, the Journal of the Systems Society of India.



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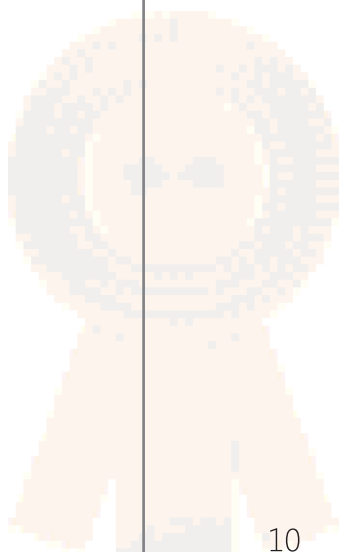


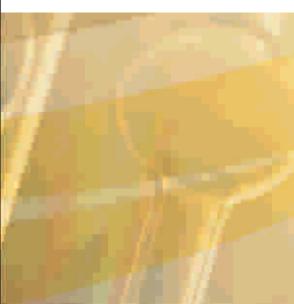
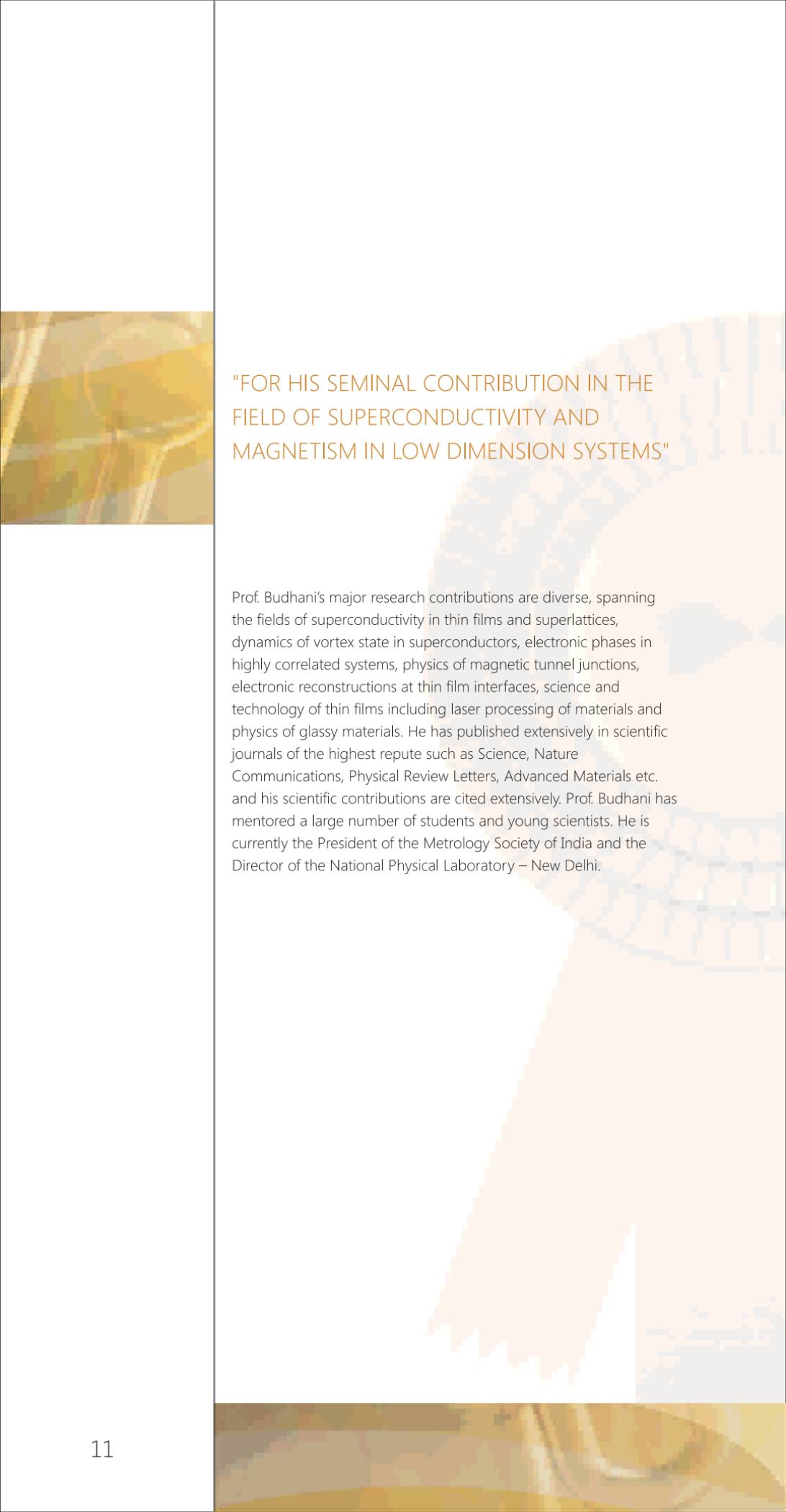
PROF. R.C. BUDHANI

PHYSICAL SCIENCES



Prof. Budhani is an experimental low temperature physicist with interest in the areas of superconductivity and magnetism in Low-dimensional systems. Born in a picturesque village of the Uttarakhand Himalayas on February 3, 1955, he received his B.Sc. Degree from the Kumaon University (Almora Campus), M.Sc. Degree in Physics from Allahabad University and Ph.D. in Condensed Matter Physics from the Indian Institute of Technology, Delhi. He has been a research scientist at the University of California, Los Angeles during the period 1984-87, and a staff scientist at Brookhaven National Laboratory, New York from 1988 till 1994. He joined the Physics Department of the Indian Institute of Technology Kanpur as an Associate Professor in 1994 and became a full Professor in 1997. Prof. Budhani has also been a visiting professor at the Center for Superconductivity Research - University of Maryland and a Guest Scientist at CRI SMAT Laboratory, Caen – France, Brookhaven Laboratory and Joliot Fellow of ESPCI – Paris - France after joining IIT Kanpur in the year 1994. Prof. Budhani is a Fellow of the American Physical Society, the Indian National Science Academy, the Indian Academy of Sciences and the National Academy of Sciences, India.





"FOR HIS SEMINAL CONTRIBUTION IN THE
FIELD OF SUPERCONDUCTIVITY AND
MAGNETISM IN LOW DIMENSION SYSTEMS"

Prof. Budhani's major research contributions are diverse, spanning the fields of superconductivity in thin films and superlattices, dynamics of vortex state in superconductors, electronic phases in highly correlated systems, physics of magnetic tunnel junctions, electronic reconstructions at thin film interfaces, science and technology of thin films including laser processing of materials and physics of glassy materials. He has published extensively in scientific journals of the highest repute such as Science, Nature Communications, Physical Review Letters, Advanced Materials etc. and his scientific contributions are cited extensively. Prof. Budhani has mentored a large number of students and young scientists. He is currently the President of the Metrology Society of India and the Director of the National Physical Laboratory – New Delhi.



G. S. RAUTELA

SCIENCE COMMUNICATION & SCIENCE POPULARIZATION



Shri G.S. Rautela, born on February 14, 1954 in a small village of Bageshwar district of Uttarakhand, is currently the Director General of the National Council of Science Museums, the creator of the network of 50 science centres in India. Prior to this he was the Director of Science City, Kolkata and Director of Nehru Science Centre, Mumbai, Project Co-ordinator of Hall of Science, Technology and Energy, New Delhi and Regional Science Centre, Bhopal.

After obtaining masters degree in Physics from Kumaun University he did his research work in Science Education at the National Council of Educational Research and Training, New Delhi and thereafter chose to become a science communicator . He joined the National Council of Science Museums, Kolkata in 1979 and worked in various science museums and centres across the country in various capacities. During his career spanning over 35 years in science education and communication, he has contributed to the development of number of science centres in the country, creation of hands-on and minds-on science exhibits, exhibitions and activities and non-formal science education programmes for students, teachers and general public. His area of research has been 'Learning of science in non-formal Setting'. He is associated with number of organisations engaged in enhancing public understanding of science. He is currently engaged in science education research/ literacy programmes and proliferation of non-formal science education initiative of Govt. of India. He has largely devoted his time in improving the quality of science education in schools and colleges through hands on and minds on approach. He is also associated with International Science & Engineering Fair, a programme to promote innovation of young students, since its launch in India in 1998 by Intel.



"FOR HIS IMMENSE CONTRIBUTION IN THE PROMOTION OF SCIENCE EDUCATION RESEARCH AND LITERACY PROGRAMMES"

Shri Rautela is also very active in the museum field at national and international level. He served as chairman of the International Committee on Museum Education and Cultural Action of the International Council of Museums (Paris) and presently the Secretary of ICOM-India Trust. He is also the member of the International programming Committee of the Science Centre World Congress.

Shri Rautela is a fellow of the West Bengal Academy of Science and Technology. He is also a member of governing boards of number of educational institutions, science centres and planetariums, science academies in the country.

Shri Rautela has published over 50 articles, research papers and monographs on science education and science centre/museum management issues. He is recipient of "Vidya Bhushan" of the DAV Education Society and Merit Certificate from Indian Society of Lighting Engineers for his work in science communication.



DR MOHAN C. JOSHI

MATHEMATICAL SCIENCES



Dr Mohan C. Joshi was born on April 21, 1942 in Almora. He obtained his Master's degree from University of Delhi in 1967. Subsequently he obtained his MS in Computer Science and Ph.D. in Mathematics from Purdue University, USA in 1973. His broad field of research interest is Nonlinear Functional Analysis.

Dr Joshi retired as Professor and Head, Department of Mathematics, IIT Bombay in 2004. Before that he was Professor of Mathematics at Birla Institute of Technology and Science, Pilani, Rajasthan. During his tenure at IIT Bombay he was instrumental in evolving the Industrial Mathematics Group (IMG). Under his leadership, IMG established strong international linkages with institutions like OCIAM, Oxford, UK; ITWM, Germany; CARISMA, Brunel, UK; Industrial Mathematics Centre, University of Manitoba, Canada. During this period of time he was the convener of several research projects under the aegis of DST, European Commission and UNESCO.

Also, Dr Joshi was responsible for spreading one of the core academic activities of IMG - Study Group Meeting- which deals with industrial problems requiring mathematical solutions. This has now acquired national dimension with Dr Joshi and his team hosting workshops in different regions of the country- MS University, Baroda, IIT Roorkee, IISc, Bangalore. This has resulted in strong partnership between academia and industry in the domain of Mathematics. He has shared the impact of this concept among institutions in India and in forums like World Congress of Nonlinear Analysts.



"FOR HIS OUTSTANDING CONTRIBUTION IN
THE FIELD OF MATHEMATICAL SCIENCES IN
PARTICULAR NONLINEAR FUNCTIONAL
ANALYSIS"

Dr Joshi's major research contributions cover wide areas of topics such as Applicable Functional Analysis, Probabilistic Functional Analysis and Finite and Infinite Dimensional Control Systems. Dr Joshi has produced good research manpower in these areas. He hosted a number of international conferences and has authored several advanced level books which have found readership all across the globe. He has forty publications in national and international journals.

He has been a visiting professor to several institutions like Purdue University, USA; University of Kaiserslautern, Germany and International Centre for Mathematical Sciences, Edinburgh, Scotland.

In recent years Dr Joshi is engaged in hosting of elongated workshops for faculty and students of Uttarakhand on various contemporary topics of interest in Mathematics.



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AWARDEES
2010



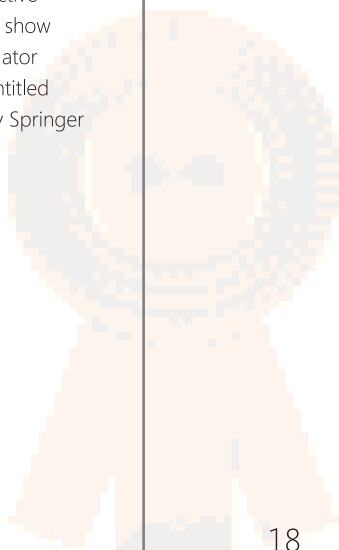
DR D.S. BHAKUNI
CHEMISTRY :
NATURAL PRODUCTS



Dr D.S. Bhakuni is a living legend, whose contributions in medicinal chemistry are etched in history of time. This untiring scientist born on 30th December, 1930 hails from Almora.

After completing his D.Phil. entitled 'Chemical investigations on Indian medicinal plants' under the supervision of Professor J.D. Tiwari at Allahabad University in year 1957 he joined CDRI Lucknow in year 1958. Under the supervision of Noble Laureate Late Sir Derek Barton (FRS), he worked to obtain Ph.D. in year 1965, D.Sc. in 1978 on Alkaloid and Alkaloid Biosynthesis of medicinal plants from University of London. He has published more than three hundred research papers in journals of national and international repute. A Bhatnagar laureate, he is recipient of Ranbaxy Research Award (1988), Sir C.V. Raman Award by UGC in 1989 and Acharya P.C. Ray Memorial Award for the year 2000.

He investigated biochemistry, synthesis of several alkaloids and bioactive unusual nucleosides of animals, plants of both terrestrial and marine origin. Dr Bhakuni has performed chemical investigations on natural products, using the latest tools of NMR and mass spectroscopy. Several new bioactive compounds isolated have been structurally, stereo-chemically and configurationally established by him. These isolates have enriched the chemistry of bioactive terrestrial and marine products. Many of these products show antiviral, antileishmanial, anti-allergic and immunomodulator activities. The quanta of the work is compiled in book entitled 'Bioactive marine natural products' published in 1989 by Springer Press.





"FOR HIS OUTSTANDING AND SEMINAL CONTRIBUTION IN THE FIELD OF MEDICINAL CHEMISTRY"

He has played many instrumental roles in various committees for Indian National Science Academy, New Delhi, Kumaon University, CDRI, Lucknow, Council for Science and Technology and as convener for Technical Advisory Board (TAB) CSIR laboratories for Biological Sciences.

Dr Bhakuni is an eminent member of research councils of CDRI Lucknow; NCL, Poona; IICT, Hyderabad; National Institute of Oceanology Goa, Department of Science and Technology advisory committee for CDRI Lucknow, University of Shillong, Kumaon University, and TIFAC. He has also served as chairman to country's major funding agencies like DST, DBT, CSIR, UGC, ICMR, Ministry of Environment, G B Pant Institute of Himalayan Environment and Development, Almora.

He has always been available for the service of scientific community of the country and his tireless efforts and inputs have enabled the country to select academicians and scientists in premier Institutes and Universities of the country. His pursuance, perseverance and success in understanding natural chemistry are milestone for chemistry of natural products.



PROF. V.P. DIMRI GEO-PHYSICS



Padma Shri Prof. V.P. Dimri, Director of Gujarat Energy Research and Management Institute, Research, Innovation and Incubation Centre, Gandhinagar (Gujarat) and ex Director, National Geophysical Research Institute is one of the eminent scientist in the field of earth sciences, who has excelled in the area of geo-physics. Prof. V.P. Dimri was born in Chamoli district of Uttarakhand on 11th February, 1948. He did his primary and secondary education at Karanprayag, Chamoli.

He obtained both Bachelors and Masters Degree from Indian Schools of Mines, Dhanbad, one of the country's premier institute for earth sciences by 1969. He then enrolled for Ph.D. at National Geophysical Research Institute, Hyderabad in 1970. His thesis on 'Application of information theory to geophysics' opened new vistas in exploration geophysics and geophysical signal processing. He obtained solutions for the challenging seismic magnetic and gravity problems. Amongst his many pioneering efforts, he established a parallelism between deconvolution and inversion for the geophysical signal processing used in exploration of oil, gas and minerals. Dr Dimri made pioneering contributions in the field of nonlinear signal analysis using fractals and its applications in geophysical data. Also, he was trained for one and a half years at Geological Survey of Germany, Hannover in 1977.

Illuminous research career of Dr Dimri is ornated with prestigious Post Doctoral Fellowship from Norway (1986-1988), Germany (Senior DAAD Fellowship in 1996) at University of Kiel, Germany, Visiting Fellow of Norwegian Research Council, Oslo in 1999. He has 125 national and international publications, 4 filed patents (1 accepted by US) and 5 authored/ edited books to his credit.



"FOR HIS PIONEERING CONTRIBUTIONS IN THE FIELD OF EARTH SCIENCES IN PARTICULAR NON-LINEAR SIGNAL ANALYSIS"

He is an Adjunct Professor of the University of Hyderabad; Department of Geophysics, Osmania University, Hyderabad and Honorary Professor of Andhra University, Vishakhapatnam. In recognition of his outstanding contributions, he received prestigious Lorenz Award of the American Geophysical Union in 2007 and became its first Asian recipient. Currently, Dr Dimri is President of the Indian Geophysical Union and AP Academy of Sciences. Dr Dimri is also serving as Member of various National and International Scientific Committees. He is recipient of many national awards, like National Mineral Award, DOD Award, Outstanding Scientist Award of FAPCCI, Chatterjee Award of ISCA. His contributions have been recognized through the Fellowship of Indian National Science Academy, National Academy of Sciences and AP Academy of Sciences. He has been elected as Fellow of the Third World Academy of Sciences (TWAS), Italy.

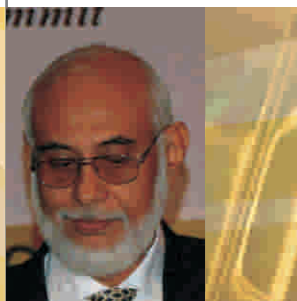
For his extraordinary scientific accomplishments, Dr Dimri has been conferred with Padma Shri by President of India in January, 2010.

The CSIR has recently awarded him a distinguished scientist status for the first time in its history for his original contribution in the field of earth sciences. As Director of NGRI and Gujarat Energy Research and Management Institute has opened up new vistas for scientific explorations in Geo-Physics.



DR B.K. GAIROLA

INFORMATION TECHNOLOGY



Dr B K Gairola, Director General, National Informatics Centre (NIC), is a great visionary in international arena in Information and Communication Technology. Born in Srinagar, Garhwal, he obtained his B. Tech. from IIT Kanpur in Chemical engineering in the year 1971, M. Tech. in 1973 and Ph.D. in 1976 in Computer Sciences. As Director General, he is playing an important role in maneuvering accessible information technological solutions to enable it for streamlining the service providing departments to cater the needs of countrymen. NIC, under the Department of Information Technology, is today at the forefront of the active promotion and implementation of Information and Communication Technology (ICT) solutions for our country. Dr Gairola as organisational head of NIC reached these heights after having gaining experience as successful systems designer, project co ordinator and project director in various projects in NIC. He has been responsible for conceiving, designing and implementation of various large IT based projects for GOI with large citizen interfaces. He has implemented in NIC the Computer Integrated Manufacture (CIM) and utility mapping project with external funding. He is shouldering the cyber security of NICNET, the GOI network and is working as an active member for various national security initiatives. He is instrumental in making initiatives for our country to have operation system standard for smart cards for Indian driver's licenses, certifying authority for digital signatures in GOI. In addition to this, he gives consultations for IT based solutions to various institutions in the Government sector and abroad.

He has actively participated in various committees set up by GOI for the promotion of e-governance. He is chairman of technical committee for defining technology standards for e-passport and on development of smart card standards.



"FOR HIS OUTSTANDING CONTRIBUTION IN BUILDING INDIGENOUS INFORMATION TECHNOLOGY SECTOR"

The catalysis of developing our country as a knowledge society and development of common National Superhighway in Cyberspace is the judicious mixing of imported technologies and local efforts. Dr Gairola has made it possible by motivating his team in further development of technology having a global competitive edge.

The cyber security environment in country both with a view to give technical and legal framework of international standards was made possible by his vision, conviction and trust of the technocrats of our country. He has developed a framework for induction of ICT at Panchayat level in India. Presently, he is working on the mission of taking IT to the rural areas as part of culture building, inclusiveness and as a tool for development. He is also on the Advisory Committee for Registrar General of India on the selection of technology for Census-2011.

Dr Gairola's achievements and outputs are enabling us to define and make possible the scientific revolution and ushering in a more secure cyberspace. His vision in building indigenous and cost effective information technology, infrastructure in the country is commendable. His new initiatives for development include National Identity System for all country men, Unique Identification System (UID) for below poverty line families, national roll out of police automation upto police station level have catalysed the developmental processes of our country For the service of the country, he has conceived, borne and delivered Information Technological Solutions for better governance and operations.



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AWARDEES
2009



PROF. S.K. JOSHI

PHYSICAL SCIENCES

Padma Shri Dr S.K. Joshi was born on 06 June 1935. He obtained his Ph.D. in Physics from Allahabad University in 1962. His broad field of research interest is Condensed Matter Theory. He had earlier worked on Collision Processes in Atomic and Molecular Systems.

Dr Joshi was Professor of Physics at the University of Roorkee (Now IIT, Roorkee) from 1967 till 1986. He was the Director of National Physical Laboratory from 1986-1991. He held the position of the Director General CSIR from 1991 till 1995.

He was elected Fellow of the Indian National Science Academy in 1974 and was Secretary of the Academy during 1983-86 and Foreign Secretary during 1989-92. He was the President of the INSA from 1993 till 1995. He is a Fellow of the Indian Academy of Sciences since 1974 and was Vice-President from 1989-91. He is a Fellow of the National Academy of Sciences and was its President during 2001-2002. Dr Joshi was the President of Indian Physics Association during 1989-90, President of the Materials Research Society of India during 1995-97, and the President of the Indian Science Congress Association for the year 1996-97. Dr Joshi is a Fellow of the Third World Academy of Sciences, and a Foreign Member of the Russian Academy of Sciences.

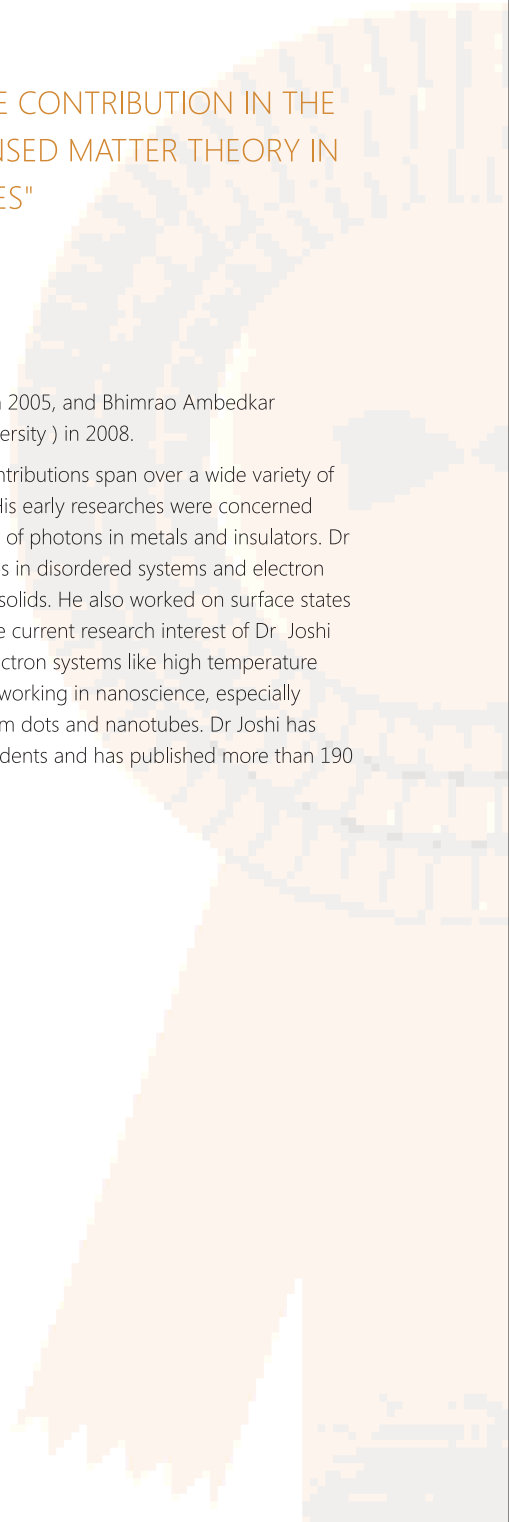
He won Watumull Memorial (1965), Shanti Swarup Bhatnagar Award for Physical Sciences (1972), CSIR Silver Jubilee Award (1973) and Meghnad Saha Award for Research in Theoretical Sciences (1974). He recipient of FICCI Award in Physical Sciences (1990) and Goyal Prize in Physics (1993). He was awarded CV Raman Medal by INSA in 1999. He was awarded Padma Shri in 1991 and Padma Bhushan in 2003. He received D.Sc. (honoris causa) from Kumaon University in 1994, Kanpur University in 1995, Banaras Hindu University in 1996



"FOR HIS IMMENSE CONTRIBUTION IN THE
FIELD OF CONDENSED MATTER THEORY IN
PHYSICAL SCIENCES"

and University of Burdwan in 2005, and Bhimrao Ambedkar University (former Agra University) in 2008.

Dr Joshi's major research contributions span over a wide variety of topics in solid state theory. His early researches were concerned mainly with theoretical study of photons in metals and insulators. Dr Joshi studied electronic states in disordered systems and electron correlations in narrow band solids. He also worked on surface states and surface segregation. The current research interest of Dr. Joshi lies in strongly correlated electron systems like high temperature superconductors. He is also working in nanoscience, especially electron transport in quantum dots and nanotubes. Dr Joshi has supervised over 20 Ph.D. students and has published more than 190 research papers.





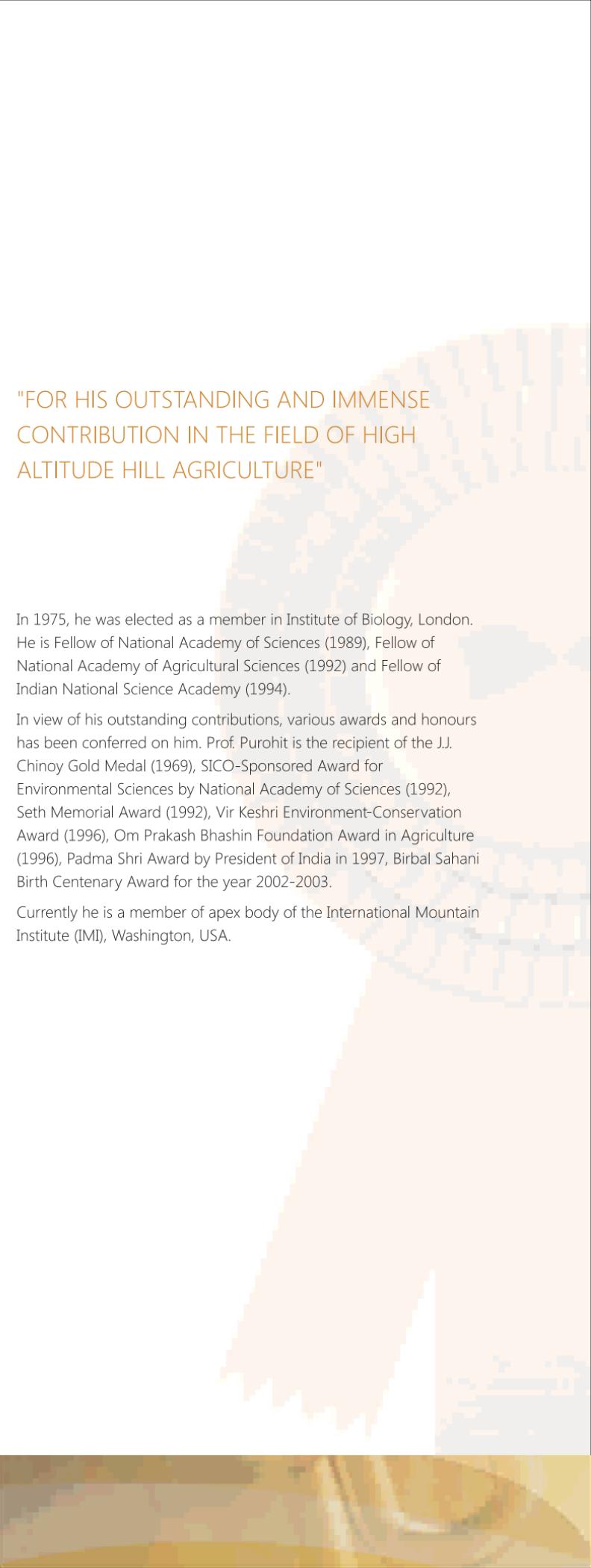
PROF. A.N. PUROHIT

LIFE SCIENCES



Padma Shri Prof. A.N. Purohit was born on July 30, 1940 at Kimni, Distt. Chamoli, Uttarakhand, India. He earned his Post Graduation degree from Govt. College, Nainital with specialization in Plant Pathology and obtained Ph.D. from Punjab University, Chandigarh in Tree Physiology in 1968. Prof. Purohit started his professional career as a Plant Physiologist at Central Potato Research Institute, ICAR, Shimla from 1969 to 1972. He was appointed as Research Associate in the Department of Botany at the University of British Columbia, Vancouver, Canada from 1973-75. During 1975-76, he has worked as Reader in the Plant Physiology at the Department of Botany in North Eastern Hill University, Shillong. He, thereafter, has served as Head in the Department of Botany, H.N.B. Garhwal University, Srinagar and as Director at High Altitude Plant Physiology Research Centre, Srinagar. He has been the Director of G.B. Pant Institute of Himalayan Environment and Development, Almora from 1990-1995 and then joined as Professor in H.N.B. Garhwal University from 1995-2002. He has been Vice-Chancellor of H.N.B. Garhwal University, Srinagar during 2001-2002. During 2003-2009, Prof. Purohit has graced "Sri M.L. Bhartia Chair for Conservation, Development and Promotion of Medicinal and Aromatic Plants in Uttarakhand" of Govt. of Uttarakhand and was instrumental in establishing Centre for Aromatic Plants, Selaqui, Dehradun.

As a teacher, he guided and motivated innumerable students and 18 Ph.D. degrees have been awarded under his supervision. He has also made significant contributions for the development of Science and Technology in the State. Prof. Purohit has worked on Eco-physiology of tree species and physiology of high altitude medicinal plants. He established the High Altitude Plant Physiology Research Centre at Srinagar Garhwal and its alpine field laboratory at 13000 feet elevation at Tungnath, the first alpine centre of the country.



"FOR HIS OUTSTANDING AND IMMENSE
CONTRIBUTION IN THE FIELD OF HIGH
ALTITUDE HILL AGRICULTURE"

In 1975, he was elected as a member in Institute of Biology, London. He is Fellow of National Academy of Sciences (1989), Fellow of National Academy of Agricultural Sciences (1992) and Fellow of Indian National Science Academy (1994).

In view of his outstanding contributions, various awards and honours has been conferred on him. Prof. Purohit is the recipient of the J.J. Chinoy Gold Medal (1969), SICO-Sponsored Award for Environmental Sciences by National Academy of Sciences (1992), Seth Memorial Award (1992), Vir Keshri Environment-Conservation Award (1996), Om Prakash Bhashin Foundation Award in Agriculture (1996), Padma Shri Award by President of India in 1997, Birbal Sahani Birth Centenary Award for the year 2002-2003.

Currently he is a member of apex body of the International Mountain Institute (IMI), Washington, USA.



PROF. A.N. MUKHOPADHYAY

AGRICULTURE SCIENCES

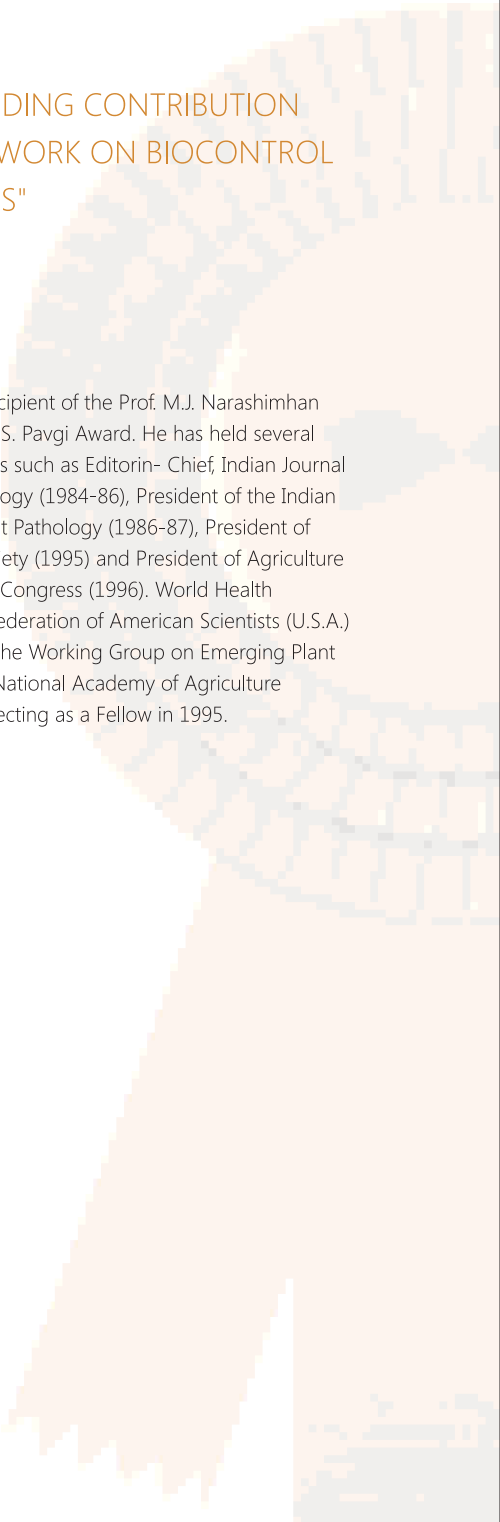
Prof. A.N. Mukhopadhyay was born on March 12, 1940 at Katwa, West Bengal. He joined Banaras Hindu University and obtained his B.Sc. (Ag.), M.Sc. (Ag.) and Ph.D. degrees in the years 1960, 1962 and 1967, respectively. Prof. Mukhopadhyay started his professional career in Plant Pathology at G.B. Pant University of Agriculture and Technology, Pantnagar in 1967 as Assistant Professor and became Associate Professor in 1971. He was invited by the University of New Castle Upon, Tyne, U.K. as a Visiting Professor in 1977. He became Professor and Head, Plant Pathology at Gujarat Agricultural University in 1982 and later joined back the G.B. Pant Agricultural University as Professor and Head, Plant Pathology in 1984. Prof. Mukhopadhyay served as Dean, College of Agriculture at G.B. Pant University of Agriculture & Technology, Pantnagar from the year 1992 to 1997. In 1997, he became Vice- Chancellor of Assam Agricultural University, Assam. He took up another assignment of Director General, Tea Research Association, Tocklai in 2000.

Prof. Mukhopadhyay has been actively involved in teaching and research for the since 3 decades. He has guided 15 Ph.D. and 18 M.Sc. scholars. Prof. Mukhopadhyay is internationally known for his pioneering work on bio-control of plant diseases and has been instrumental in bringing Biocontrol of Plant Diseases in forefront of the agricultural research in the country and in the South-East Asia. He has published more than 130 research papers in journals of national and international repute. Prof. Mukhopadhyay has to his credit eight books on Plant Pathology.



"FOR HIS OUTSTANDING CONTRIBUTION
AND PIONEERING WORK ON BIOCONTROL
OF PLANT DISEASES"

Prof. Mukhopadhyay is the recipient of the Prof. M.J. Narashimhan Academic Award and Prof. M.S. Pavgi Award. He has held several prestigious honorary positions such as Editor-in- Chief, Indian Journal of Mycology and Plant Pathology (1984-86), President of the Indian Society of Mycology and Plant Pathology (1986-87), President of Indian Phytopathological Society (1995) and President of Agriculture Section of the Indian Science Congress (1996). World Health Organization (Geneva) and Federation of American Scientists (U.S.A.) elected him as a Member of the Working Group on Emerging Plant Diseases in 1993 in Geneva. National Academy of Agriculture Sciences honoured him by electing as a Fellow in 1995.





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