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# Director's Report



Dr. K. Kasturirangan

I consider it a privilege to present this report on the activities of the National Institute of Advanced Studies between April 2007 and March 2008, as much of this period belonged to the twentieth year of this institution. Over the last two decades NIAS has established itself as an Institute that can make a difference both academically and in the realm of policy making. It has developed the academic and physical infrastructure necessary for research, teaching, outreach and to establish itself as a place for discussion and development of new ideas. The last few years have seen consolidation and growth in each of these dimensions of NIAS. Old tasks have been completed and new initiatives begun. And the year under review has been no exception.

At an institutional level the year saw NIAS taking several fresh initiatives. Arguably, the most significant of these was the institution of the Infosys Prize for Mathematics jointly by NIAS and Infosys Technologies Ltd. The Prize, which owes a great deal to the initiative of Mr. Mohandas Pai, is a major effort to promote young academics. It is to be awarded to a person, below the age of 45, who, in the opinion of the award jury, has made outstanding contributions – fundamental or applied – in any field of mathematics including in the areas of pure mathematics, mathematical foundations of computer science and applied mathematics in natural, life and social sciences. The Prize is to recognize contributions of extraordinary depth and influence to the mathematical sciences, and which raise the status of mathematics in society and stimulate the interest of students in mathematics. Consisting of a cash award of Rupees ten lakhs and a medal, the Prize is one of the richest of its kind in the world.

During the year NIAS also demonstrated its ability to effectively incubate an initiative in education. The District Quality Education Project, a five year project that began in 2002, aimed to use a systemic approach to provide a holistic understanding of the problems of elementary education in Karnataka, and contribute to their solution. Funded primarily by the Sir Ratan Tata Trust (Mumbai) with supplementary funding from the Sarva Shiksha Abhiyana, Karnataka; the India Foundation for the Arts; and Asha for Education; the project focused on the government elementary school system in the socio-economically and educationally disadvantaged district of Chamarajanagar. After incubating the project for a period of five years, NIAS facilitated it to become an autonomous group

called Vidyankura which will continue to work in the district and extend its skills and resources to other groups.

The year also saw the Institute extend its role as a location for the discussion and development of ideas to the international sphere. The Global Water Partnership (GWP), established in 1996, is an international network of organizations committed to the promotion of Integrated Water Resources Management (IWRM). This is achieved by providing a platform for dialogue as well as systematic generation, accumulation, and dissemination of knowledge at the global, national, regional and river basin levels. Currently, the GWP network comprises of 12 regional and over 70 country water partnerships across the globe. GWP South Asia (GWP SAS) is a regional network comprising of over 400 organisations from Bangladesh, Bhutan, India, Nepal, Pakistan and Sri Lanka. I am happy to inform you that the GWP SAS is currently being hosted by NIAS under the chairmanship of Shri Suresh Prabhu, Member of Parliament.

In another new institutional initiative the Institute set up the RBI Programme on Interdisciplinary Approaches to Economic Issues. While interdisciplinary economics typically uses economic tools to explain phenomena in other social sciences and law, this programme aims to use insights and tools from other disciplines to understand economic issues. In the process this programme hopes to develop a much-needed inclusive view of economic issues. In June 2007 Reserve Bank of India decided to contribute to the corpus fund for the launch of this programme. The corpus of Rs. 75 lakhs is to be released over a period of three years. The first tranche of Rs. 25 lakhs was received and invested during the year. The programme took off with the launch of a lecture series and a research project.

The period till March 31 also saw the foundation being laid for other initiatives that were to take shape later. Prominent among these initiatives was the conceptualization of a long-term study by the International Strategic and Security Studies Programme with support from the Defence Research and Development Organization (DRDO).

The Institute also maintained its thrust on the development of adequate infrastructure. The Centenary Faculty Block was dedicated to the nation on January

13, 2008 by the Hon'ble Vice-President of India, Shri M. Hamid Ansari with the participation of His Excellency, the Governor of Karnataka, Shri Rameshwar Thakur. After the formal dedication both the esteemed guests spent time in a discussion with members of the faculty of NIAS as well as some other distinguished invitees including NIAS Council members from Bangalore, the three Advisors to the Governor, Prof. C. N. R. Rao and Dr. G. Madhavan Nair, amongst others. The year also saw the creation of additional facilities such as guest rooms, suites and a new dining hall.

There has also been wider recognition that a growth in initiatives must be accompanied by greater quality standards and introspection. As a part of this effort NIAS held its first Annual Review Meet. The faculty presented their work over the last academic year in a series of presentations on July 5 and 6, 2007. Each member of the regular faculty spoke for thirty minutes covering their past work, their ongoing work and their future work. Each talk was followed by a discussion for ten minutes. Selected visiting faculty gave a brief presentation for ten minutes each. The sessions were open to all at NIAS, the NIAS Associates and others who were interested. The schools had also invited external experts to take a view on the work that had been done.

To the discerning observer the review also provided an indication of the direction each school was taking in its research. The year saw each of the schools consolidating some of their past efforts and also seeking new directions.

### School of Humanities

The research efforts of the School of Humanities covered a diverse set of areas. The main areas of interest included astronomy, cognitive science, consciousness, history, history and philosophy of science, and archaeo-metallurgy. This resulted in a number of important individual research contributions. In addition, Dr. Rajesh Kasturirangan was the coordinator for the National Cognitive Science Initiative under the aegis of the Department of Science and Technology (DST). As coordinator, he managed a team of around 40 researchers throughout the country with the intent of developing a five-year research initiative in the cognitive sciences. At the end of the academic year, this team has submitted two major proposals to DST for further consideration.

## School of Natural Sciences and Engineering

Research in the school ranges from applied mathematics to agriculture, ecology, behaviour and conservation. These broad fields cover a wide range of very different specific concerns. The specifics that are being researched include various dimensions of the ecology, communication, cognition and social organization of wild bonnet macaques, agroterrorism, census methods for nocturnal primate densities, and critical zeros of the Riemann-zeta function.

## School of Social Sciences

Research in this school includes work on agrarian distress, climate change, education, globalisation and cities, and water. These broad areas reflect considerable variation in the specific topics being studied, ranging from research on specific industries like information technology and garments, to the analysis of inter-state water conflicts.

A major highlight of the performance of individual members of the school was the recognition accorded to Prof. Dilip R. Ahuja. He was a lead author and a review editor for The Intergovernmental Panel on Climate Change which shared the 2007 Nobel Peace Prize. Prof. Ahuja was acknowledged by the IPCC Chairman and the Secretariat, and the Prime Minister of India.

## International Strategic and Security Studies Programme

A major focus of the research during the year was on the weapons capabilities of our neighbours. An assessment was made of China's ballistic and cruise missile capabilities as well as Pakistan's Babur missile. There was also an assessment of Pakistan's solid rocket motor production capabilities and a preliminary assessment of the implications of the Chinese Anti-Satellite Test (ASAT) for Indian space security. Position papers were also brought out on various dimensions of the Indo-US civil nuclear deal.

## Ph.D. Programme

The doctoral programme, which was initiated in 2005, has developed into a well-integrated and unique regimen that promotes multi-disciplinary work. The variety of specialized fields available at NIAS allows students to work across disciplines, some of which have not been studied before. The vibrancy of this approach is reflected in the atmosphere of the Institute as well as the publications of the students.

## Courses

Over the last two decades NIAS has laid a great deal of emphasis on developing its short-term courses. Four courses held during the year marked a continuation of this effort. In addition, a new course on *Energy Security and Management* was conceptualised and implemented on behalf of the Department of Science and Technology for the benefit of senior level technologists and science administrators in both the public and private sectors. The course was inaugurated by Dr. Anil Kakodkar with an address on nuclear energy. The lectures by energy specialists covered various forms of non-renewable and renewable energy as well as the economics of demand and supply with their geo-political overtones.

The NIAS *Senior Executives Course* remained the Institute's flagship course. The twenty-second edition of this course was inaugurated by Shri Jaswant Singh, Hon'ble Member of Parliament and the valedictory address given by Sir Mark Tully, Former Chief of Bureau, BBC, New Delhi. The participants were from both the public and private sectors. The speakers included Shri Sharad Joshi, Dr. B. P. Mathur, Shri Suresh Prabhu, Prof. Anandlingam, Prof. Sadagopan, Dr. R. Chidambaram, Shri Vijay Kelkar, Prof. S. Chandrashekar, Prof. S. S. Meenakshisundaram, Shri Suresh Jayaram, Dr. U. R. Ananthamurthy, Prof. B. V. Sreekantan and Dr. M. S. Valiathan.

The Eleventh course on *An Integrated Approach to Knowledge and Information* was co-sponsored by University Grants Commission, New Delhi and Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore. The course was for university and college teachers. Inaugurated by Prof. P. Balram, Director, Indian Institute of Science, Bangalore, the course covered a wide variety of areas from space and security to cultural studies and new institutional spaces.

The Fifth NIAS-DST Training Programme on *Multidisciplinary Perspectives on Science and Technology* was inaugurated by Dr. Arcot Ramachandran with an address on *Science and Technology for Sustainable Development*. The specific themes the course covered included globalisation, agriculture, climate change and global warming, water, and the nuclear agreement. The valedictory address on *Role of Law in the context of Liberalisation* was delivered by Mr. G. E. Vahanavati, Solicitor General, Supreme Court of India.

The Third NIAS-DST Workshop on *Dimensions of Nanotechnology: Science, Technology, Business and Society* assembled eminent personalities from various fields including physics, chemistry, biology, materials science, and electronics. The eminent faculty included Prof. C. N. R. Rao, and Prof. A. K. Sood.

### Lectures

The NIAS tradition of attracting some of the best minds for lectures and discussions was further developed during the year. The M. N. Srinivas Memorial Lecture saw Prof. Satish Deshpande speaking on *Caste as Capital: Retelling the Story of Our Modernity*. Dr. R. Chidambaram delivered the second Dr. Raja Ramanna Memorial Lecture on *Nuclear Energy in India: Self-Reliance and International Cooperation*. The Third Mohandas Moses Memorial Lecture was delivered by Shri Sudhakar Rao, Chief Secretary, Government of Karnataka. In

addition, there were a number of public and guest lectures that featured eminent personalities from across the world including Dr. Jacques Arnould, Dr. Frances E. Allen, Prof. Rama Ranjan Mukherji, Dr. M. S. Valiathan, Prof. Raymond Jeanloz, Prof. Frits Staal, Prof. Naseem Rehman, Prof. T. S. Rukmani, Dr. Stig Toft Madsen, Prof. Robert W. Fuller and Dr. Anil Kakodkar.

The lectures in the revisitation series were delivered by Prof. S. Ranganathan, Prof. Uma Chakravarti, Prof. Vidyanand Nanjundiah and Prof. Timothy Poston. Wednesday Discussion Meetings too saw a variety of interesting lectures from invited speakers as well as by NIAS faculty and students.

### Conferences

NIAS was host to a series of conferences, seminars and consultations. The second round table on



The Hon'ble Vice President, Shri M. Hamid Ansari dedicating the Centenary Faculty Block to the nation. On his right is His Excellency, Shri Rameshwar Thakur, Governor of Karnataka and on his left Dr. K. Kasturirangan, Director, NIAS.

S. Suresh

*Indo-US Perspectives in Science and Technology* organised with support from ONRGlobal, Singapore, aimed to identify areas of common interest between the two countries. Other conferences included one on *Sangam: Interactions of Poetry and Theatre*, another on *Reconceptualizing Indian Traditions*, one on *Emerging New Energy Concepts for the 21st Century: Low Energy Nuclear Reactions* and a national dialogue on *Inter-state Transboundary Water Sharing*. In addition, consultations were held on *Urban Studies, Water* and *Towards Engaged Social Sciences*.

The Summer School in Philosophy too attracted students, particularly doctoral students, from universities across the country.

### Visitors

A two-member team from the Sir Dorabji Tata Trust, Mumbai visited NIAS on January 15 and 16, 2008 and reviewed the Institute's activities. The members were Prof. J. Saha and Ms. Archana Nambiar.

The Institute continued to be an attractive destination for scholars from a number of universities across the world. Several of them spent varying periods of time at NIAS, giving lectures and interacting with faculty and students.

### Financial Position

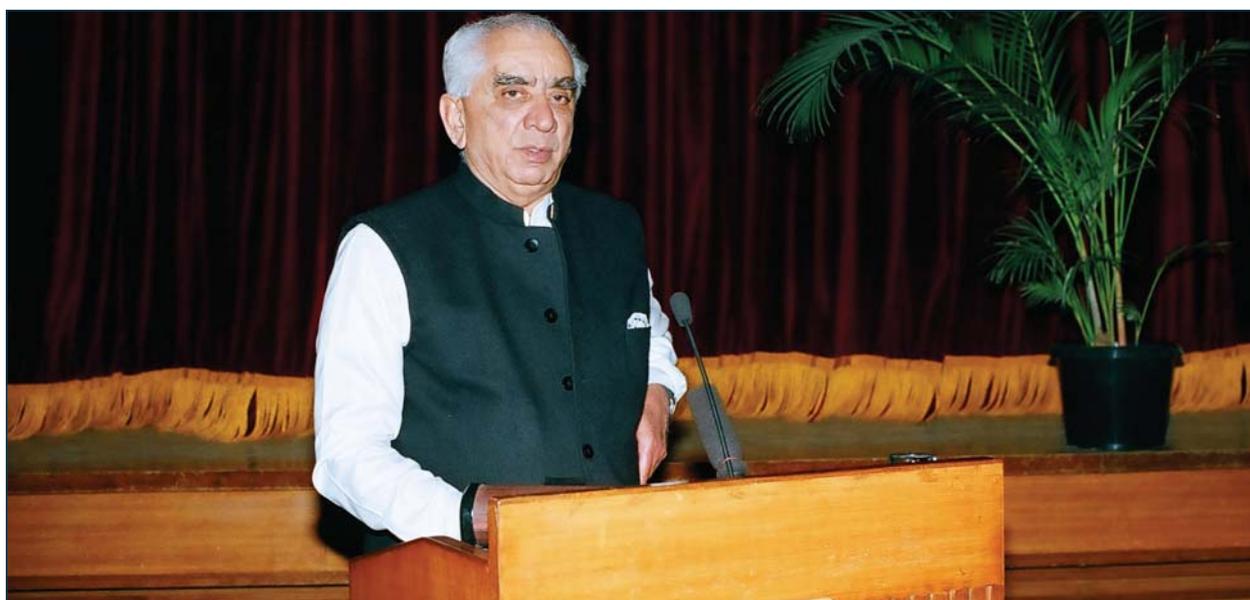
The financial position of the Institute is quite satisfactory. This is reflected in the detailed accounts appended to the Annual Report.

### Looking Ahead

As we enter our third decade I believe it is important for NIAS to restate its vision. What began as a dream shared by Jamsetji N. Tata and J. R. D. Tata, to bring together the humanities and the sciences, has been given a definite direction. The multidisciplinary perspective of the Institute is closely tied to an approach that focuses on building a core group whose effectiveness is enhanced through networking with national and international bodies. This has enabled NIAS to effectively address contemporary issues ranging from urban affairs to strategic concerns. The Institute has been able to come up with quick reports on specific issues like the proposed Indo-US nuclear deal.

In order to further build on this base, NIAS would need to further strengthen its academic cadre. This would be done primarily by attracting post-doctoral fellows as well as junior faculty. Senior faculty could also be hired when there is a strong justification to do so. This will help NIAS to build programmes on water, urban affairs, education, globalisation, and the environmental consequences of energy use. This will be in addition to its current programmes. It will also help strengthen the national and international networks of the Institute.

My colleagues and I look forward to your assured support that will help make our dreams come true.



Shivkumar

Shri Jaswant Singh, Hon'ble Member of Parliament inaugurating the Senior Executives Course with a lecture on *Excellence in Leadership*.

Prof. Sundar Sarukkai, *Professor and Dean*  
Prof. B. V. Sreekantan, *Visiting Professor*  
Prof. S. Settar, *Dr. S. Radhakrishnan Visiting Professor*  
Prof. S. Ranganathan, *Visiting Professor*  
Prof. S. Balachandra Rao, *Honorary Professor*  
Dr. Sangeetha Menon, *Fellow*  
Dr. M. G. Narasimhan, *Fellow*  
Dr. Sharada Srinivasan, *Fellow*  
Dr. Rajesh Kasturirangan, *Fellow*  
Dr. Veena Rao, *Honorary Research Associate*

**R**esearch in the School currently focuses on the philosophical foundations of sciences including mathematics; on scientific and philosophical studies of consciousness; on Indian psychology; on the history and philosophy of science; and cognitive science. Work is also underway on the analysis of ancient metals, and on translations of Kannada literary classics into English.

## RESEARCH

### *Astronomy*

Prof. S. Balachandra Rao is currently working on a three-year project entitled *A Critical Study of the Indian Astronomical Tables – Sarinis, Padakams and Koshtakas*. The project is sponsored by Indian National Science Academy (INSA), New Delhi. Prof. Rao has been assigned a project on the English translation, with critical notes, of the Sanskrit astronomical work, *Makaranda Sarini* by the Rajasthan Sanskrit University, Jaipur.

### *Cognitive Science*

Dr. Rajesh Kasturirangan was made the coordinator for the National Cognitive Science initiative under the aegis of the Department of Science and Technology (DST). The Cognitive Science initiative of the DST involves two interdisciplinary projects, one on language and cognition and the second on cognitive networks. The goal of the language project is to address the relationship between language and cognition as human capacities with a special emphasis on the linguistic and cognitive diversity of India. This project will encompass linguistic theory, language modelling, the interaction between language, thought and culture (with special emphasis on India's linguistic diversity), auditory and speech processing, literacy and education, language disorders and language based computer applications as part of the investigation of language as a human capacity. The other project, on cognitive networks, will be a study of the manner in which mental

# School of Humanities



Sharada Srinivasan

Parvati, Freer Gallery of Art

functions emerge from interconnected neural architectures. The goal is to focus both on the integration of mental functions like emotion, thought and social cognition as well as the evolution of these functions across evolutionary time. It will involve inputs from computational theory and modelling, psychophysics, animal behaviour, cognitive neuroscience and imaging and systems and cellular neuroscience.

### *Consciousness*

Over the past decade and a half Prof. B. V. Sreekantan has collected lot of information on scientific aspects of consciousness, reality, oneness and unification. He is putting all this together in the form of a book in which he will also examine the philosophical implications, relevance of ancient insights and so on.

Dr. Sangeetha Menon is researching *Reason, Emotion and Wellbeing in Indian Psychology*. With the help of Indian philosophical and aesthetic literature supplemented by dialogues with artists and spiritual teachers this study explores the place of emotions and their relation to well-being. Dr. Menon is also researching a critique of socio-biological altruism and introducing *Spiritual Altruism*. The study examines the question of whether the scope of altruism and selfish behaviour is expanded and better understood if we shift focus from the act, preservationist, hedonistic theories to formation of self-identities, group identities, and the process of self-transformation. In a third project Dr. Menon is researching *Transpersonal Psychology of the Bhagavad Gita: Consciousness, Meditation, Work and Love*. She argues that Bhagavan Krishna's interventions are transpersonal in nature, with the potential for transforming Arjuna, presenting him a new and lasting transphysical and transocial identity. Dr. Menon is also examining *The Puzzle of Experiential Primacy and Consciousness*. The questions we ask about consciousness have their bases in different kinds of experience. We understand *complexity* as an intrinsic characteristic of the 'other', the object of investigation, which we attempt to study. This notion of *complexity* is being examined.

During Dr. Sangeetha Menon's visit to Oxford University and particularly with the support from Oxford University Library services, she studied *Emotions, Face and Indian Psychology: Discussions on Darwin, Ekman and Natyasastra*. This work entails

the study of gestures, in particular facial expressions, in the context of 'micro-expressions' with the help of works of Charles Darwin and Paul Ekman as well as an elaborate discussion in *Natyasastra* on aesthetic emotions and physical movement.

### *History*

Prof. S. Settar's work on *Sangam Tamil Literature and Kannada Country and Language* received wide attention. While much of current discourse posits a conflict between Kannada and Tamil, Prof. Settar points to the seminal commonalities between the two languages. The work begins by looking at two of the earliest extant works in the two languages and goes on to outline their influence, or the lack of it, on the later work in these languages. In the process the work throws up a number of questions about the relationship between the two cultures as well as the influence of Sanskrit. Without attempting to be judgemental or projecting his views as, in some sense, final, Prof. Settar's work is designed to provoke and encourage further exploration of these ideas.

### *History and Philosophy of Science*

Prof. Sundar Sarrukai continued his work on various dimensions of *Indian Philosophy*. He explored the link between logic and epistemology in Indian logic. He also researched the philosophical dimensions of current practice, including the relationship between Dalit experience and theory; as well as literary reality and scientific fiction.

Dr. M. G. Narasimhan has carried out research in the *History and Philosophy of Science with special focus on Biology*. He has done an extensive study of the role of thought experiments in science. In addition, he has done detailed studies of problems related to *Evolution, Reduction and Causation in Philosophy of Biology*.

### *Metallurgy*

Prof. S. Ranganathan's research was in three areas. In collaboration with Dr. Sharada Srinivasan he studied *Archaeometallurgy of Iron and Bronze Objects*. Under the Office of Naval Research Global Project, he executed *An Atlas of Science in India*. His main contribution was in exploring the *Nanotechnology Scenario in India*.

Dr. Sharada Srinivasan was principal investigator for a project on *Ancient Harappan Metallurgy* including sites such as Dholavira, and following field

investigations that had been done previously carried out analyses and micro-structural investigations. Investigations on ferrous artefacts from the megalithic site of Kadebakele, near the Hampi region excavated by University of Michigan and the team of Prof. Carla Sinopoli were also begun in collaboration with Prof. S. Ranganathan and Indian Institute of Science. Field investigations were also undertaken at the early historic site of Pattinam being excavated by Kerala Council of Historical Research and some analyses of ferrous artefacts were begun. These studies should better establish the early development of iron and steel technology. Dr. Sharada Srinivasan also undertook field visits related to material culture to Sanganakallu, a Neolithic site in Bellary district to look at the metals and lithic tools, including aspects related to ancient performance and acoustic archaeology of rock art and aspect of musicality of rock gongs; this work was done in collaboration with the Sanganakallu International Archaeological Project of the Cambridge University (Dr. Nicole Boivin) and Karnatak University, Dharwar (Prof. Ravikorisetar).

Dr. Srinivasan had also undertaken new research linking archaeo-astronomy and archaeometallurgical perspectives in relation to the Nataraja bronze icon and south Indian sculpture, in collaboration with late Dr. Nirupama Raghavan and this work was also presented at numerous prestigious international venues in concert with perspectives from classical Bharatanatyam performance and evoked much interest and acclaim.

## ROUNDTABLES AND CONFERENCES

Prof. S. Ranganathan organised the Second Roundtable on *Indo-US Perspective in Science and Technology* on February 16 and 17, 2008. The deliberations were initiated by the opening remarks from Prof. B.V. Sreekantan who gave a brief account of the activities being pursued at NIAS. Dr. Bhakta Rath (NRL) mentioned that the purpose of this meeting was to build on the collaborations that have been developed over the years, supported by the Indo-US S&T Initiative programme and to identify areas of common interest between our two countries. The roundtable saw the assembly of eminent people from various fields such as from materials, metallurgy, energy, manufacturing and engineering materials, management, strategic planning in the field of space, nuclear energy and defence. The objective of the workshop was to look

into the science and technology aspects of the Indo-US relationship in the ongoing bonhomie. Another objective was to highlight the scientific research conducted in both the countries and apply scientometric tools to the number of citations and research papers in the identified areas. The discussion was to see how both the countries can work together on possible identified areas. The US side was represented by a team of twelve members led by Dr. Bhakta Rath of NRL and Capt. Chip Fowler of the ONR-Global. The Indian side had representation from various entities including academic institutions, research establishments, industrial R&D Laboratories among others. The meeting was made possible as part of an ONRG project that is currently being executed at NIAS. The organization of the Roundtables was enabled by support from the ONRGlobal, Singapore. Dr. Rajesh Kasturirangan organised a seminar on *Reconceptualizing Indian Traditions* on April 26, 2007. Dr. Kasturirangan also organised a weekly seminar on the Cognitive Foundations of Mathematics. Papers from the seminar are being made ready for publication.

Dr. Sharada Srinivasan co-organised programmes of the NIAS Literary, Arts and Heritage Forum with Dr. Sangeetha Menon. She co-ordinated a two-day national symposium sponsored by Sahitya Akademi, New Delhi on *Sangam: Interactions of poetry and Theatre* on October 25 and 26, 2007. This seminar looked at the interactions of poetry and theatre aiming to bring practitioners of theatre and dramaturgy together with poets and academics to reflect, from traditional and contemporary perspectives, on the ways in which theatrical practices and poetic forms have drawn from each other. Other events included presentations or readings relating to genetics and science fiction, digital media and performance (involving K-danse, the French body), a play reading on Gandhi and Tagore and others.

## OTHER ACTIVITIES

Prof. Sundar Sarukkai conducted a two-day module in the writing workshop *Academic Writing for Doctoral Students*, Indian Council of Social Science Research Western Division, University of Mumbai, on November 20 and 21, 2007.

Prof. S. Ranganathan's programme on ancient metallurgy has been accepted as part of the project for the Centre for Basic Sciences, Mumbai. Prof. S. Ranganathan also organised a discussion meeting on

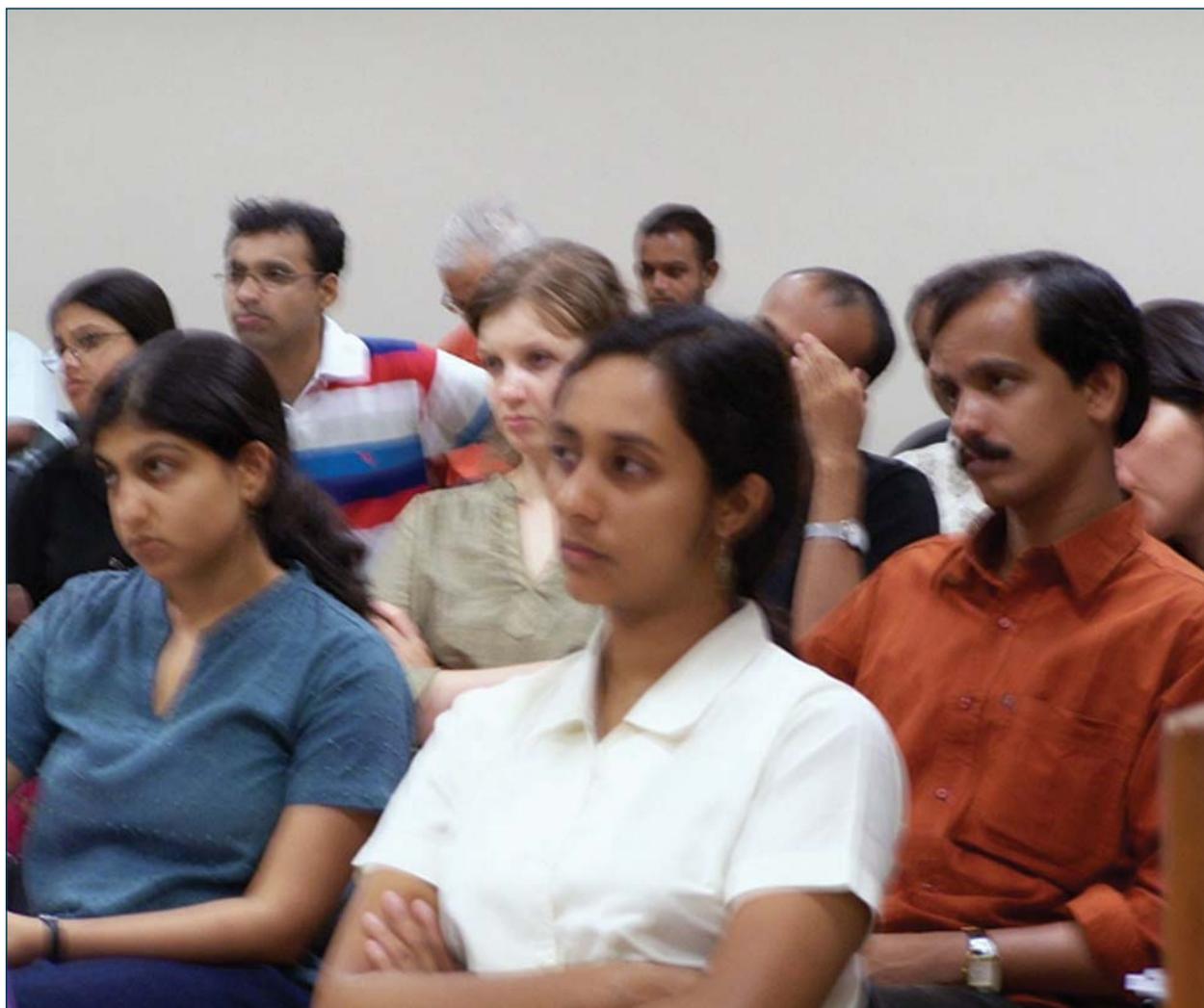
*Emerging New Energy Concepts for the 21st Century: Low Energy Nuclear Reactions* on January 9, 2008.

Prof. S. Balachandra Rao's student, Ms. S. K. Uma, was awarded Ph.D. by the Manipal University for her thesis entitled *A Mathematical Analysis and Updating of Eclipse Procedures in Indian Astronomical Texts*.

Dr. Sangeetha Menon was a part of a national initiative to bring together an edited volume on classical Indian sources for psychology. She also oversaw NIAS publications (print and electronic) in the *Excellence in Leadership* Series. She was coordinator of the weekly *Wednesday Discussion Meetings* for NIAS faculty and guest lectures. She was also coordinator of the *NIAS Literary, Art and Heritage Forum*. Dr. Menon was responsible for Design and Concept for *NIAS Brochure - 2008*.

Dr. M. G. Narasimhan was a Visiting Professor in Jadavpur University, Kolkata from November 12 to 21, 2007. In the course of his visit he delivered a series of three lectures on Philosophy of Biology. The Visitorship was sponsored by the Center for Cognitive Science, Department of Philosophy, Jadavpur University, Kolkata. He is currently the Section Editor of the Section on Women, Science and Technology in the Encyclopedia Project planned by the Kannada University, Hampi.

Dr. Sharada Srinivasan has been invited as a co-moderator with Dr. Roger Malina, Chairman, Leonardo for the development of a Leonardo Asian Art-Science International Educational Network, which was set up in the past year marking the 40th anniversary year of Leonardo, the leading international organization and journal promoting art-science discourse.



Students at the Summer School on Philosophy for the Social Sciences and Humanities

## CENTRE FOR PHILOSOPHY

The Centre for Philosophy continued its efforts to establish structures to enable philosophical thinking and practice in the larger society. These efforts included organizing workshops, summer schools and symposia.

A three-week summer school on *Philosophy for the Social Sciences and Humanities* for post-graduate and doctoral students from all over the country was held between June 4 and 22, 2007 at NIAS. Partially supported by Indian Council of Philosophical Research, the programme was attended by M.A., M.Phil. and Ph.D. students from all over the country. Similar workshops had been held over the last two years. This workshop introduced students to philosophy, drawn from both Indian and Western traditions, necessary to understand topics in social sciences and humanities. Classes were conducted by eminent philosophers and were at an accessible level for students who did not have to be students of philosophy.

An international symposium on *Space and Culture* was held at NIAS between September 29 and October 1, 2007. Leonardo, Srishti School for Arts and Design, Bangalore and The Arts Catalyst, London were co-organisers of the symposium, which was supported by Indian Space Research Organisation.

An international seminar on *Ego and Embodiment and the Sensory-Motor System* was held at NIAS, between September 3 and 5, 2007. Embodiment is one of the fundamental problems in philosophy. What does it mean to be embodied? Is the Mind Embodied by its very nature? If so, how? These are questions that have exercised thinkers from different traditions, including Naiyayikas, Buddhists, European Phenomenologists and Cognitive Scientists. NIAS hosted an interdisciplinary conference devoted to addressing the various problems related to embodiment. This Seminar was supported by Indian Council of Philosophical Research and Centre for Studies on Civilisation. The organisers were Prof. Arindam Chakrabarti, University of Hawaii and Dr. Rajesh Kasturirangan, NIAS.

A national workshop on *Buddhist Philosophy and Modern Science: Matter and Motion* was held at Nalanda Mahavihara, Nalanda, between November

2 and 7, 2007. The other organisers were Nalanda Mahavihara, Nalanda, Bihar and Sambasha, Kolkata.

Two sessions were held on philosophy at Christ College, Bangalore in December 2007.

A symposium on *The History of Classical Indian Sciences*, was held at Poornaprajna Institute of Scientific Research, Bangalore, on February 25 and 26, 2008. Poornaprajna Institute of Scientific Research, Bangalore was a joint organiser of the event.



Prof. Gerard Larson of University of California at Santa Barbara during the international seminar on *Ego, Embodiment and the Sensory-Motor System*.

A photograph of a Bonnet Macaque sitting on a tree stump in front of a waterfall. The macaque has a light brown face and chest, with darker brown fur on its body. It is looking towards the camera. The background shows a waterfall cascading down a rocky ledge, with misty hills in the distance.

# School of Natural Sciences and Engineering

A Bonnet Macaque at the Sharavathi Valley  
Wildlife Sanctuary

Prof. P. K. Shetty, *Professor and Dean*  
Prof. Prabhakar G. Vaidya, *Professor*  
Prof. Anindya Sinha, *Professor*  
Prof. K. Ramachandra, *Visiting Professor*  
Dr. Sindhu Radhakrishna, *Fellow*

This School continued its research, teaching and outreach in the field of engineering and mathematics; agriculture; and ecology and conservation biology. Current research interests of the faculty members include various aspects of signal and image processing; cryptography; number theory; mathematical modelling of complex chaotic systems; studies on agro-ecology and biosecurity; pesticide and environmental stewardship; conservation of wildlife; primate behaviour; and cognition.

## RESEARCH

### *Agriculture*

Prof. P. K. Shetty is studying some of the plant and animal pathogens that are a potential threat to agriculture and society. Agroterrorism, which is a subset of bioterrorism, has immense potential for serious economic damage. A disease introduced intentionally may be indistinguishable from one that arises naturally and therefore agroterrorists can cause serious economic damage and without being noticed. Disease-causing microbes such as foot-and-mouth disease are readily available in countries where they naturally infect crops or livestock and can easily be *weaponized*.

Prof. Shetty also examined rainfall variation in semi arid and tropical humid climate environments in the cardamom hills, in the southern Western Ghats. Studies of rainfall variation generally focus on large areas, such as meteorological subdivisions. This is of little use to local agriculture, particularly for crops like small cardamom and vanilla which are very sensitive to soil moisture and atmospheric relative humidity. This study presented data and analysis of the long-term rainfall variations in semi-arid as well as tropical humid environments in cardamom hill slopes. The semi-arid cardamom hill slopes showed a decreasing trend in rainfall over the past three decades even as year to year variation in rainfall was considerable. If the present trend continues, agricultural production in this semi-arid, poor rain fed system will suffer, unless conservation and mitigation efforts are undertaken.

### *Ecology, Behaviour and Conservation*

Prof. Anindya Sinha, Mr. Subhankar Chakraborty, Mr. Debapriyo Chakraborty and Mr. Mayukh Chatterjee are looking at the *Distribution, Morphology and Field Biology of the Bonnet Macaque: A Comparative Account of the Two Subspecies*. The bonnet macaque, a cercopithecine primate endemic to southern India, is believed to consist of two subspecies with subtle morphological differences: the northern *Macaca radiata radiata* and the southern *Macaca radiata diluta*, restricted to southeastern peninsular India. The long-term studies on the ecology, behaviour and demography of the northern subspecies have revealed several unique features of the species, unparalleled amongst cercopithecines. In contrast, there is a virtual absence of any comparable study on the southern subspecies. This project has been examining the morphology, demography and life history strategies of identified individuals in selected troops of the two subspecies in two protected areas within their respective distributions. This study is expected to confirm the biological legitimacy of the two subspecies, initiate long-term monitoring of selected groups, and attempt to obtain insights into management strategies for their survival amidst increasing conflict with human populations.

Prof. Sinha, Mr. Mayukh Chatterjee and Dr. Kakoli Mukhopadhyay are exploring *Demography, Ecology and Social Evolution in Wild Bonnet Macaques*. This long-term project, begun in 2000 and proposed to continue for twenty years, is investigating the demographic structure and ecology of a population of wild bonnet macaques in the Bandipur National Park – Mudumalai Wildlife Sanctuary complex in the states of Karnataka and Tamil Nadu. During the last year, the researchers have continued demographic monitoring of twenty-two troops of the species and quantitative observations on the behavioural ecology of five of these groups.

Prof. Sinha, Mr. Mayukh Chatterjee, Mr. Kishor G. Bhat, Prof. Prabhakar G. Vaidya, Dr. Rajesh Kasturirangan and Dr. Michael A. Huffman are looking at the *Communication and Cognition in Wild Bonnet Macaques*. A long-term interest of the those in NIAS working on the macaque species has been to investigate the social and mechanical cognitive abilities of wild bonnet macaques with particular reference to the cognitive mechanisms underlying specific behavioural processes including the

acquisition of social knowledge and tactical deception as well as the origin, development and function of vocal communication in this species. In this connection, they have been continuing interdisciplinary projects with Prof. Prabhakar Vaidya and Mr. Kishor Bhat on the analyses of vocal communication and with Dr. Rajesh Kasturirangan and Dr. Michael A Huffman on the cognitive mechanisms underlying individual and social behaviour as well as on behavioural transmission and cultural traditions in this macaque species.

Prof. Sinha, Mr. Rishi Kumar and Mr. Mayukh Chatterjee are researching *Social Organisation and Social Relationships in Wild Bonnet and Rhesus Macaques*. In continuation of the long-term research project on bonnet macaques, which has been investigating social relationships and social cognition in wild groups of this species, the researchers have made significant progress in the exploration of two further problems in its social behaviour: The temporal persistence of social relationships within troops and The developmental patterns of infant-mother relationships.

Prof. Sinha and Mr. Rishi Kumar completed a field study on the demography of pure and mixed-species troops of rhesus and bonnet macaques in the states of Andhra Pradesh and Maharashtra. Two important components of this project are: Delineation of the distribution boundary of rhesus and bonnet macaques in peninsular India, and Studies on the behavioural ecology, demography and conservation status of mixed troops of the two species in selected sites in Maharashtra.

Prof. Sinha, Mr. Nabam Gama and Dr. Charudutt Mishra are looking at the *Ecology, Behaviour and Conservation of Macaques in Northeastern India*. They described a primate, new to science, from the Tawang and West Kameng districts of western Arunachal Pradesh – the Arunachal macaque (with the scientific name *Macaca munzala*) – in 2006. They have already conducted a short-term project to explore its demography, behavioural ecology and conservation status in western Arunachal Pradesh. In this connection, they completed a survey on the macaques, possibly related to the Arunachal macaque, in the districts of Upper Subansiri and West Siang in central Arunachal Pradesh last year, the first such preliminary survey having been completed in early 2007.

Prof. Sinha, Mr. Narayan Sharma and Dr. M. D. Madhusudan are also continuing their research programme to investigate the demography, behavioural ecology and conservation status of a highly-endangered primate community, consisting of four macaque species – the Assamese macaque, the pigtailed macaque, the rhesus macaque and the stump-tailed macaque, together with the hoolock gibbon, the capped langur and the slow loris – in several fragments of low-lying tropical rainforests of the Brahmaputra Valley in Assam. This project completed its first phase last year, during which they explored the occurrence, distribution and status of primate communities in 43 Reserve Forests and Proposed Reserve Forests in eastern Assam. They also initiated the second phase of this project last year; this involves a detailed observational study on the resource utilisation, competition and niche partitioning displayed by different members of the primate community in the Gibbon Wildlife Sanctuary in eastern Assam.

Prof. Sinha and Dr. H. N. Kumara are researching *Ecology and Conservation of the Lion-Tailed Macaque in Karnataka State*. The lion-tailed macaque is a highly-endangered primate that is facing imminent local extinction or is on a sharp decline in many protected areas over its distributional range in the Western Ghats mountains. An important population in this regard is the newly-discovered Sirsi-Honnava population of the macaque, which might mark the northernmost point of its distribution. This study, initiated last year, aims to understand the ranging and feeding ecology of this population and plans to initiate conservation measures to protect its habitat and its last constituent groups.

Prof. Sinha, Mr. Debapriyo Chakraborty, Mr. Subhankar Chakraborty and Dr. Uma Ramakrishnan are discovering *Molecular Genetics of the Arunachal Macaque, Bonnet Macaque and the Sinica Group of the Genus Macaca*. This collaborative project, initiated in January 2006, has been exploring the molecular phylogeny of the *sinica* group of the genus *Macaca*, consisting of five species, in general and those of the bonnet macaque and the newly-discovered Arunachal macaque, in particular. Specific nucleotide sequences from the nuclear genome and mitochondrial DNA have been amplified, sequenced and compared across these species in order to determine the exact phylogenetic position of the Arunachal macaque and the bonnet macaque within

the genus. Another important component of this project includes the development and identification of species-specific microsatellite DNA sequences in order to investigate the population genetic structure of the Arunachal macaque and the macaques of central Arunachal Pradesh and the molecular population genetics of bonnet macaques over its entire distribution range in peninsular India. Finally, exploring the sub-species status of the bonnet macaque using a molecular taxonomic approach.

Prof. Sinha and Dr. Sitabhra Sinha are researching *Analysis and Modelling of the Structure and Dynamics of Primate Societies*. This research on primate societies has so far implicitly assumed that social complexity arises due to cognitively sophisticated decision-making processes exercised by each individual on the basis of individually acquired and processed information. Group-level dynamics of complex primate societies could, however, also be explained by more parsimonious, non-cognitive alternative hypotheses arising from general individual-based rules, as predicted by principles of self-organisation and chaos. They have, therefore, begun to investigate appropriate agent-based models that could account for several emergent properties of the bonnet macaque social networks that have earlier been observed. An interesting issue that is also being addressed is the role played by interactions between general rule-based behaviours and individual-specific cognitive behaviours in the emergence of these social networks, which perhaps represent an intermediate stage between the simpler prosimian groups and the much more complex human societies.

Prof. Sinha, Mr. Robin V. Vijayan and Dr. Uma Ramakrishnan are looking at the *Demography, Ecology, Population Genetics and Conservation of the White-Bellied Shortwing in the Western Ghats*. The white-bellied shortwing *Brachypteryx major* is a threatened bird of the Western Ghats Mountains. There have been very few sightings of this bird and very little information is available on its biology. The bird is now known to be limited to a particular habitat, the montane evergreen forests. These forests are being lost at a rapid rate and the encounter rates of the species in some areas were low, causing immense concern for the survival of this species. This study has been investigating various aspects of the biology of the shortwing, including its population, foraging and breeding biology as well as vocal communication

in natural forests and along a disturbance gradient over the last four years. During the last year, two collaborative projects investigating the population genetic structure of this bird along the Western Ghats and the molecular sexing of individuals have been initiated. Overall, they hope to understand and demonstrate how the species is adapted to its particular habitat, and understand its biology and population structure in order to develop a sound conservation plan for the species.

Prof. Sinha, Ms. Nandini Rajamani and Dr. F. Stephen Dobson are studying *Behavioural Ecology and Conservation of Flying Squirrels in the Western Ghats*. The Western Ghats, a global biodiversity hotspot, is a region faced with complex human-induced pressures with many taxa, particularly small mammals, requiring urgent conservation action. Flying squirrels are nocturnal, arboreal small mammals, distributed largely in the fast disappearing tropics of south and Southeast Asia. India has up to



A Malabar Slender Loris

H. N. Kumara

11 species of flying squirrels, and two of these are distributed in the Western Ghats: the endemic and vulnerable Travancore flying squirrel and the Indian giant flying squirrel. Flying squirrels in India are under threat due to shrinking forest cover, disturbed and fragmented habitats, and illegal hunting. Knowledge of the ecology of species in their intact environments, their patterns of co-existence with other species in the nocturnal mammalian assemblage, and the response of species to habitat disturbance in the light of inter-specific competition are important to frame conservation plans targeted towards such species. This study is attempting to determine if the two species of flying squirrels are sympatric across different forest types and altitudes, and over this year we have recorded their natural abundance levels in such habitats. Attempts are also being made to study the basic behavioural ecology of these virtually unstudied mammals with the hope that the results that will be obtained from this study can be used to frame conservation strategies for these highly endangered nocturnal squirrels.

Prof. Sinha, Mr. Robin Abraham and Mr. Goutam Narayan are researching *Ecology and Behaviour of Captive Bred Pygmy Hogs Prior to Reintroduction into the Wild*. A reintroduction programme of an animal would be incomplete without background information on its ecology and behaviour, particularly its ranging and feeding patterns and social behaviour in the wild. The pygmy hog (*Sus Salvanius*), a critically endangered species with only a single remnant population in the wild, has been successfully captive bred at the Pygmy Hog Conservation Centre in Guwahati, Assam with reintroduction into the wild being its next step. There is, however, virtually no information on the behaviour of this rare species in the wild. A study on the behaviour and basic habitat preferences of the animal in captive and semi-wild conditions is thus essential, as it would yield baseline data for the species, which is extremely difficult to track in the wild. A study on the behaviour of the species in captivity was thus initiated last year in Guwahati, followed by observational studies on the habitat use by pre-release individuals in larger enclosures at a pre-release site in the Nameri National Park in Assam.

Prof. Sinha, Ms. Dipti Hamraskar and Dr. Suhel Quader are studying *Behaviour and Ecology of the Western Ghats Flying Lizard*. Of the nearly 40 species of flying lizards found across India and Southeast

Asia, the Western Ghats flying lizard *Draco dussumieri* is endemic to southern India and forms an interesting subject for behavioural studies due to its elaborate ornamentation, formed by its wing-membrane and gular appendage. This project focuses on studying the variation in behaviour of the Western Ghats flying lizard across the breeding and non-breeding seasons in the Dandeli Tiger Reserve in Karnataka. The study also aims at examining the microhabitat use as well as mating systems and spacing patterns exhibited by the species. Most studies on the genus have, so far, dealt mainly with physiology and anatomy, but little is known about ecology of the species. This study will not only contribute to the understanding of the biology of this interesting species but also develop a model system for behavioural studies on reptiles.

In Dr. Sindhu Radhakrishna's project on *Development of Social Relations in the Slender Loris*, she studied the development of social relations in a primarily solitary species, the gray slender loris. Specifically, the aims of the study were to) compare interactions of juvenile males and adult males with those between juvenile females and adult males, and to (ii) investigate the use of vocalisations in mother-infant interactions. The results of such a study will not only produce vital perspectives into the development of social behaviour and communication in a primarily solitary species, but also reveal the significance of subtle behaviours in maintaining social networks in a nocturnal primate species.

Dr. Radhakrishna and Prof. Sinha are researching *Distribution, Abundance and Conservation Status of the Slender Loris in the Eastern and Western Ghats, India*. This study aims to examine the geographical range limits of the two Indian slender loris subspecies, the Mysore slender and the Malabar slender loris, their population densities, and factors affecting their abundance in the Eastern and Western Ghats mountains. The results of the study will not only provide essential data to assess the conservation status of the species and formulate management strategies for its survival, but will also present a broader perspective of differences in landscape and faunal assemblages in the Eastern and the Western Ghats.

Dr. Radhakrishna and Dr. Kumara are studying *Evaluation of Census Methods for Nocturnal Primate Densities*. Nocturnal primate densities are typically

estimated through visual sightings via transects. An important methodological debate in this connection has been the role of environmental factors in aiding or obstructing visual sightings of animals. This project looked at testing the efficacy of a number of census methodologies in detecting the presence of nocturnal primates against varying environmental conditions.

Dr. Radhakrishna, Ms. Swapna N and Prof. Sinha are researching *Population Survey of Bengal Slow Loris Nycticebus Bengalensis in Tripura, Northeastern India*. The aim of this project was to survey the protected areas of Tripura, one of the states of northeastern India, in order to estimate the population status of the slow loris. Two protected areas in Tripura – Trishna Wildlife Sanctuary and Sepahijala Wildlife Sanctuary – were surveyed for the presence of lorises. Slow lorises were sighted in Trishna Wildlife Sanctuary; the number of sightings within a small area also hints toward a high local density of the species within the sanctuary. No lorises were sighted in Sepahijala Wildlife Sanctuary although interviews with Forest Department personnel and official records maintained at the zoo within the sanctuary showed that lorises are present in the area. It is strongly recommended that a long-term socioecological study be conducted on the slow loris population in Trishna Wildlife Sanctuary in order to collect ecological and behavioural data on the species; such studies are essential to develop long-term conservation strategies for the primate.

Dr. Radhakrishna, Ms. Swapna N, Dr. A. K. Gupta and Dr. Ajith Kumar are discovering *Feeding Ecology and Habitat Use in the Bengal Slow Loris (Nycticebus Bengalensis) in Trishna Wildlife Sanctuary, Tripura*. The distribution, biology and behavioural ecology of the Bengal slow loris remain largely unstudied, even as the species faces a multitude of threats such as shifting cultivation and poaching across its distributional range. This study aimed to determine the dietary and habitat preferences of the Bengal slow loris, and compare abundances in different habitat types. Focal animal sampling was used to determine the diet, ranging patterns and habitat utilization. Phenology of habitat was also monitored to assess food availability. This result of this study would hence

provide essential information which could be utilized to identify important conservation actions.

**Prof. K. Ramachandra** is studying the critical zeros of the Riemann-zeta function.

## OTHER ACTIVITIES

Prof. Anindya Sinha was invited to deliver a Plenary Lecture at the Annual Conference of the Indian Ethological Society, Bangalore on April 11, 2007. He was also invited as a Visiting Professor, Centre for Cognitive Sciences, Department of Philosophy, Jadavpur University, Kolkata from April 16 to 21, 2007. He was again invited as a Visiting Professor, Institute of Mathematical Sciences, Chennai from April 23 to 28, 2007. He was Nominated Leader of the Indian Team, International Biology Olympiad, Saskatoon, Canada from July 13 to 24, 2007. He also coordinated and taught a three-credit course, consisting of lectures, seminars, project assignments and field work techniques, on *Behavioural Ecology* for Master's degree students of the Post-Graduate Programme in Wildlife Biology and Conservation, National Centre for Biological Sciences, Bangalore, February to April 2007.

Prof. Sinha coordinated and taught (with Dr. Rohan Arthur, Nature Conservation Foundation, Mysore) a three-credit course, consisting of lectures, seminars, and project assignments, on *Philosophy and Practice of Science* for doctoral students of the Nature Conservation Foundation, Mysore, November 2007. Prof. Sinha coordinated and taught a two-credit course, consisting of lectures, seminars, project assignments and field work techniques, on *Evolutionary Ecology and Behaviour* for doctoral students of the Nature Conservation Foundation, Mysore, November 2007.

Dr. Sindhu Radhakrishna coordinated the Fourth Foundation Course for students of the NIAS Doctoral Programme, August – December 2007.

Prof. K. Ramachandra was interviewed at the school where he studied in standards I to VIII (Bengaluru, March 16 - 31, 2008, Pages 40-41).



# School of Social Sciences

Prof. A. R. Vasavi, *Professor and Dean*  
Prof. Dilip R. Ahuja, *Professor*  
Prof. N. Shantha Mohan, *Professor*  
Prof. Narendar Pani, *Professor*  
Dr. B. K. Anitha, *Fellow*  
Dr. Carol Upadhyaya, *Fellow*  
Dr. Padma M. Sarangapani, *Visiting Fellow (till November 2007)*

*I*t was a year of transition for the School of Social Sciences. An old project came to a successful completion and new initiatives were launched. The District Quality Education project was brought to a closure while two new programmes, *Interdisciplinary Approaches to Economic Issues* and *Global Water Partnership* were started. The year also saw the introduction of a new member of the faculty, Prof. Narendar Pani, even as one member of the faculty, Dr. Padma M. Sarangapani, left to join the Tata Institute of Social Sciences, Mumbai as a Professor.

During the year the school organised three national-level consultations, one titled, *Towards Engaged Social Sciences*, another on the proposed Urban Studies Programme, and a third on the potential problems of District Institutes for Education and Learning. The year also saw research being taken up in a number of new areas.

## DISTRICT QUALITY EDUCATION PROJECT

The District Quality Education Project (DQEP) was a five-year project (2002-2007) based in the School of Social Sciences. The project, funded primarily by the Sir Ratan Tata Trust (Mumbai) and with supplementary funding from the Sarva Shiksha Abhiyana-Karnataka, the India Foundation for the Arts, and Asha for Education, focused on the government elementary school system in the socio-economically and educationally disadvantaged district of Chamarajanagar in Karnataka. After incubating and sustaining this project for a period of five years, NIAS has now facilitated it to become an autonomous group called *Vidyankura* which will continue to work in Chamarajanagar district and extend its skills and resources to other groups and government machinery.

The project drew on sociological and educational studies and developed several programmes. The *School and Community Contact Programme* sought

Sculpture by a participant in the District Quality Education Project

to foster linkages between the school and community. The *Art in Education programme* (in collaboration with Jane Sahi and Roshan Sahi), developed and promoted the integration of art activities into teaching-learning practices. The *Language Development Programme* (in collaboration with The Promise Foundation) aimed to enhance Kannada learning levels of children and contributed to teachers' capabilities. *Capacity-Building of Mid-level Functionaries* involved the development and implementation of a *course module for Cluster Resource Persons*. The *Integrated Block and Cluster Development Programme* focused on building master resource pools in specific subject areas and in activating the education resource centres. *Collaboration with DIET Chamarajanagar* attempted to realize the potential of the DIET (District Institute for Education and Training) in terms of district specific work. *Materials Development* focused on identifying, translating and promoting new reading materials for Kannada readers (with translations from Hindi and English), development of local texts, and innovative teaching aids and materials. *Advocacy and Outreach* activities were linked to promoting education policies and to sharing and extending learnings from the project's activities and experiences.

The DQEP has developed a number of assessment tools, combining a battery of measuring indicators and processes covering areas such as learning levels of children, school work culture and functioning etc. The main testing tools developed were baseline study instruments to assess children's learning levels, tools to assess learning levels among out of school children, an Exit Study tool to assess the impact of the project on children's learning levels, and a School Indicator Format to assess the overall functioning of Schools. In 2006, team-members took time off to reflect on their experiences and write essays in Kannada and English. The field researchers wrote eight case studies of schools over a period of four years (2004 - 2007). A handbook in Kannada for Cluster Resource Persons and Block Resource Persons was developed in collaboration with the state office of the SSA. The handbook is a comprehensive user manual and is useful for induction training for mid-level functionaries.

The project also developed reports that were primarily policy oriented. A summary report of the seminar on *Karnataka's Elementary Education System: Experiences, Achievements and Future Challenges*

was submitted to the Minister for Primary and Secondary Education, Karnataka, to be considered during the preparation of the proposed new policy on elementary education in the state. The report on *The Functioning of Select Elementary Schools in Chamarajanagar District* based on 28 schools over a period of four years (2004 - 2007) provides a broad overview of the culture and functioning of government schools in Chamarajanagar district. *Community / Caste Culture, Public Participation and Schooling among the Uppara: Report of an Action Research in Chamarajanagar District* studied the Uppara, a marginalized community. Comprising primarily socially and economically disadvantaged households, certain cultural practices like early marriage, seclusion of girls after puberty, importance of housekeeping skills among girls, and the prevalence and acceptance of child labour are major factors for this community remaining educationally disadvantaged. The *Report on Ashramshala Schools in Chamarajanagar District (in Kannada)* followed up on the observation in the the DQEP Baseline Study in 2002 - 2003 that children from Ashramshalas had low learning levels, especially in Language and Maths, as well as high absenteeism, even as most of the teachers engaged in these residential schools were untrained. The *Assessment of Utility and Usage of Soliga Siddhi Textbooks Developed For Soliga Tribal Ashram Shalas Of Chamarajanagar District* was undertaken to understand the extent to which Soliga Siddhi textbooks have been utilized in the tribal Ashramshalas of Yelandur and Kollegal taluks and to comment on the desirability of bringing out textbooks for class III and IV and continue usage of the available Soliga Siddhi textbooks in classes I and II. Other reports included an internal study of *Needs-Assessment of Block Resource Persons and Educational Coordinators Chamarajanagar District*, a report on *Collaboration with DIET Chamarajanagar and one on DIET Restructuring: Two Possible Models. Training Management System*, a software for planning of teachers' training, was pilot-tested in Chamarajanagar.

The DQEP undertook periodic filming and video-documentation of its key activities. In addition, the Sir Ratan Tata Trust commissioned a 20 minute film in English, *Vidyankura: Education Seedling in Chamrajanagar* that gives an overview of the different sub-programmes of the project and some of its achievements. *Education Resource Centres at District, Block and Cluster* is a 12 minute documentary in

English on the Chamarajanagar Resource Centre set up under the aegis of the DIET Collaboration of the DQEP. *Nimma Sampanmula Kendra* is a 5 minute film in Kannada which seeks to disseminate the concept of the resource centre as a forum for teaching-learning processes for teacher-educators. *Which Language? Whose Language?* is a 10 minute film which focuses on the challenges faced by the *Soliga* (a Tribal group) children in having to study in Kannada which is the regional language, while their own dialect is not understood or accepted by the teachers. *Mary Teacher* is a 10 minute film which narrates the story of a teacher in a government higher primary school in one of the rural settlements in Chamarajanagar. The film documents the experiences of a teacher who has moved from studying in her village school to her role as a teacher in the same school.

The training module is targeted to develop master resource persons in specific subject areas of Kannada, Mathematics, and English. It also incorporates 'training of trainers' for capacity building of mid-level functionaries and resource persons to facilitate further decentralized training of teachers. Essays from Hindi and English have been translated into Kannada to facilitate their usage among teachers and educators in Karnataka. Locally available literature has also been compiled and integrated to develop and publish new teaching-learning materials in Kannada. Twenty articles from English and Hindi have been translated into Kannada and disseminated among the education community in Chamarajanagar and other parts of the state. A Second Edition of *Arts in Education: Resources Book for Teachers* is forthcoming from Navkarnataka Publications, Bangalore. The English and Hindi versions are forthcoming from Eklavya, Bhopal. Four books have also been translated from Hindi and English into Kannada.

The project coordinators were Prof. A. R. Vasavi and Dr. Padma M. Sarangapani. The team members were Ms. K. Latha, Mr. D. Shivkumar, Ms. Sheela Venkatesh, Ms. M. D. Aarabhi, Mr. Rahul Mukhopadyay, Mr. P. Veerbhadranaika, Mr. C. Veerendra, Mr. B. Shivnanju, Mr. C. Shivkumar, Dr. N. Ramkumar, Ms. Padma G. T, Mr. Prakash Kamath, Mr. Vajramuni, Ms. R. Rajeshwary, Ms. Lakshamma, Mr. Mahadevswamy, Mr. L. Mahendra and Mr. Narayana.

The School of Social Sciences also established an effective link with Global Water Partnership which led to the setting up of the the GWP-South Asia Regional Secretariat in NIAS. Since its establishment in 1996 the Global Water Partnership has provided a platform for dialogue as well as systematic generation, accumulation, and dissemination of knowledge at the global, national, regional and river basin levels. The initiative to build this link, led by Prof. Shanta Mohan, was based on the fact that India has a vast population with multiple identities of caste, race, religion and gender along with the constitutional state identities. As a result the process of developing a plan for water management through the participation of several stakeholders is complex and calls for astute planning. In this regard, it was envisaged to consider India a region and develop Zonal Water Partnerships, representing the North, South, East, West and the Northeast, that have an independent geographical region that are extremely heterogeneous in terms of their water usage and requirements as well as the policy, governance and institutional structures that govern them. The main objectives were to form ZWPs in the North, East, West and North East regions, mobilize membership, facilitate the establishment of equitable and effective governance structures, enable ZWPs to provide a viable critical constituency that can serve as the zonal focal points, evolve mechanisms to represent themselves in the IWP and GWP decision making processes and facilitate experience sharing, networking and the development of ZWP work plans. The outcome has been that the ZWPs have been established in the four respective regions. They have also developed their vision documents and action plans.

#### RBI PROGRAMME ON INTERDISCIPLINARY APPROACHES TO ECONOMIC ISSUES

This programme is based on the recognition that economic issues are often influenced by non-economic elements. In order to understand these elements, and thereby develop a more comprehensive view of economic issues, it is necessary to use concepts from other social sciences. Thus while much of interdisciplinary economics, as a field, concentrates on using economic concepts to understand other social science disciplines, the focus of this programme is on using concepts from other social sciences to provide a more inclusive view of economic issues. By bringing

into economic analysis elements of a situation that would normally be seen to be in the domain of other social sciences, the programme hopes to capture the critical role that social, political, technological and environmental issues play in the working of the economy.

During the year NIAS launched two initiatives utilizing the funds generated from the corpus provided by RBI: a research project and a lecture series. The first project of the RBI programme looks at the garment industry in Bangalore in order to understand the larger question of globalisation and cities. The perceptions of globalisation in relation to cities have been largely influenced by the experience of cities at the top of the hierarchy; cities that are the command and control centres of globalisation. The project is based on the recognition of the need to review perceptions of globalisation, to find out if there is a different perception of the process when seen from the perspective of cities, and industries, at the other end of the spectrum. The second initiative was the launch of a lecture series that is designed to take a broader view of economic issues. The inaugural lecture was by Dr. Pulapre Balakrishnan, Senior

Fellow, Nehru Memorial Museum and Library. Dr. Balakrishnan spoke on *Visible Hand: Public Policy and Economic Growth in the Nehru Era* on February 11, 2008.

## CONSULTATIONS

The consultation *Towards Engaged Social Sciences* was held on October 29 and 30, 2007. It brought together social scientists and those who use the social sciences to look at the main challenges facing social sciences in India. The interaction between academics, policy makers, NGOs and others ensured a wide ranging set of issues was discussed. While complete unanimity across such a diverse group was not expected, the discussions did throw up a consistent set of arguments for reorienting Indian social science through specific programmes. This programme-led approach and the arguments leading up to it were captured in a NIAS report.

The consultation on the proposed *Urban Studies Programme* was held at NIAS on September 18, 2007. Experts from around the country supported the establishment of the programme at NIAS. The



Shivkumar

Evolving Guidelines for the Establishment of Zonal Water Partnerships in India

participants recommended that the programme should be policy-oriented but grounded in basic academic research. They also emphasised the importance of a multi-disciplinary approach to research, combining macro-level data with micro-level ethnographic studies. It was suggested that the programme could contribute to public debate on urban issues and foster a dialogue between researchers and policymakers by engaging in advocacy, training and outreach activities, in addition to policy-oriented research.

The two-day consultation, *DIETs: Potential and Possibilities*, was held in October 2007 in collaboration with the Ministry of Human Resource Development, New Delhi. The District Institutes of Education and Training are positioned to play a key role in universalizing quality education. Policy suggestions emerging from the workshop centred around the following areas of concern: evolving a clear institutional identity for the DIETs in which teachers are brought centrestage; establishing a strong DIET-BRC-CRC linkage; and enabling an autonomous institutional status for the DIETs to address district-specific needs.

The school also organised a series of lectures entitled, *Revisitations: Classic Texts and Contemporary Trends*.

## RESEARCH

### *Agrarian Distress*

Several specific dimensions of the agrarian crisis were researched during the year. Prof. A. R. Vasavi reviewed major reports on agrarian distress from five different states as a step towards developing a view of the problem across the country. Dr. B. K. Anitha completed a study on Impact of Agricultural Technology on Poor Households in Tumkur District, as a part of a national study undertaken in four states. The study focused on the socio-economic impact of changing cropping patterns facilitated by agricultural technology.

### *Climate Change*

Prof. Dilip R. Ahuja spent the year on a sabbatical in Washington, DC working on a joint initiative of the United Nations Foundation and the Club of Madrid, called the Global Leadership for Climate Action (GLCA). The GLCA is a high-level task force of world leaders committed to addressing climate change through international negotiations and consists of former heads of state and government as

well as leaders from business, government and civil society from more than 20 countries. In September 2007 GLCA agreed upon a *Framework for a Post-2012 Agreement on Climate Change*, calling for four negotiating pathways, focused on mitigation, adaptation, technology, and finance. In February 2008 Global Leadership for Climate Action convened in Monaco to review the progress made at the UN climate talks in Bali and to consider what additional contribution it could offer in a second phase of work. During the year, working closely with Dr. Mohamed El-Ashry, did the background research that led to the Discussion Paper that led to the Framework, and to the briefing notes.

### *Education*

There were a set of diverse initiatives in research on Education. Dr. Anitha researched the trends and complexities of learning disabilities amongst children of school going age. She also continued her research on issues of equity and quality of higher education. She was the principal investigator along with Prof. Rohini Godbole, Chair, WiS Panel of the initiative of the Indian Academy of Sciences on the study on *What Percentage of Trained Scientific Women Power are we Losing and Why?* A database of women scientists with a Ph.D. in science engineering and medicine is being created. Prof. Narendar Pani researched the impact of the Capabilities approach on education and growth. One part of this work looked at the relationship between the ideas of Amartya Sen and M.K. Gandhi, before tracing its implications for the voucher system in school education. The second component of this research, done with Mr. Jafar K, used the Kerala experience to develop a model that explains the effect of the capabilities approach on education and growth. It then looked at the role of these processes on the emergence of non-agrarian villages.

### *Globalisation and Cities*

The work on the impact of globalisation and cities has tried to build on the lessons of Bangalore's experience. Dr. Carol Upadhyia continued developing her work on the information technology industry in Bangalore. She is in the process of writing up results from NIAS-IDPAD project for bringing out a publication. She is also preparing a research proposal for programme on *Middle India* with colleagues at University of Amsterdam. Prof. Pani initiated a project on *Globalisation and Cities* that aimed to develop a conceptual perspective of the

impact of globalisation on cities that provide the resources for this process. The study attempts to answer these larger questions by taking a closer look at the garment industry in Bangalore.

### *Water*

Prof. N. Shantha Mohan's project on *Knowledge Management on River Basin Water Sharing and IWRM through active participation of Zonal Water Partnerships in INDIA* (ongoing). The main aim is to develop dynamic toolboxes for India that can respond to the changing priorities of the constituent five zones in the country represented by their respective zonal water partnerships. These ZWPs have been established in the North, South, East, West and Northeast regions. The establishment and strengthening of ZWPs is important in order to accommodate India's diversities and multiple priorities, particularly, given the fact that the country has a vast population with multiple identities of caste, race, religion, gender and constitutional states.

Prof. Mohan completed her research on *Dialogues to review and evolve guidelines for Inter-State Transboundary Water Conflict Resolution in INDIA*. The sharing of river waters across political boundaries is a matter of conflict in many countries. India not only faces a large number of inter-state conflicts but also trans-national issues on common water resources. Within India, 16 of the 18 major river basins cover

two or more States. River waters dispute between States and the emergence of workable compromise formulae are often constrained by inadequate information and database, ineffective institutional mechanisms, hardened regional identities and loyalties and threat of economic hardship. The political boundaries that divide States, which is a political construct, often subsume issues that are human, common and universal in nature. The main objectives of the dialogue are to understand the principles, review and critique the existing legal and policy frameworks to address inter-state transboundary water sharing, identify parameters that impact transboundary water sharing, provide consultative forums for either strengthening existing institutional mechanisms or evolving innovative mechanisms to promote equitable and fair water sharing between the states and initiate advocacy process for policy change at the state and national levels. Through the multi stakeholder dialogues parameters have been identified and mechanisms have been evolved for inter state transboundary water sharing.

Prof. Mohan's research on *Establishment and Strengthening of Zonal Water Partnerships (ZWPs) in India* was also completed.

In Prof. Pani's research on water, the effort has been to develop a conceptual framework to understand water conflicts, by linking published empirical



Prof. Samuel Paul, Shri Chiranjiv Singh, Dr. Robert W. Fuller and Dr. Sara Joseph at the consultation, *Towards Engaged Social Sciences*.

research from across the world with the philosophical ideas of Rawls and Gandhi. It has then gone on to use this framework to provide an alternative view of the Cauvery water dispute.

## OTHER ACTIVITIES

Prof. A. R. Vasavi along with Prof. N. Shantha Mohan organised a consultation meeting to review and discuss the possibility of NIAS hosting an *UNU Diploma Programme for Water Professionals* on April 25, 2007. Prof. Vasavi also provided advisory support to SAMAVESH, Madhya Pradesh and Centre for Excellence, Kerala. She taught courses at NIAS Ph.D. Programme on Sociology of Organisations, Sociology of India (with Dr. Carol Upadhy). Prof. Vasavi reviewed two book manuscripts for Thompson Press. She conceptualised and completed two short video-documents. *Which Language, Whose Language* and *Mary Teacher* on schools in collaboration with Mr. Gautam Sonti.

Prof. Dilip R. Ahuja was responsible for editing and production of the NIAS 2006-07 Annual Report. He organised the 32nd meeting of the NIAS Council of Management and the Annual General Body Meeting at NIAS on June 23, 2007. He helped to organise the High-level Expert Round Table on a *Framework for International Agreement on Climate Change* on July 19 and 20, 2007, Washington, DC, USA. Prof. Ahuja submitted a proposal as a Co-Principal Investigator (with Prof. D. P. Sen Gupta) on *Estimating Electricity Savings by Change/s in Indian Standard Time*, as a response to a Request for Proposals from the Bureau of Energy Efficiency, Government of India, October 2007.

Prof. N. Shantha Mohan organised a national workshop on *Establishing and Strengthening Zonal Water Partnerships in India* held at NIAS and supported by India Water Partnership and Global Water Partnership on May 29 and 30, 2007. She also organised a *Multi Stakeholder National Dialogue to Evolve Parameters and Guidelines for Inter-State Transboundary Water Conflict Resolution in India* held at NIAS and supported by India Water Partnership and Global Water Partnership on June 26 and 27, 2007. Prof. Mohan organised *Dialogue to Evolve Parameters and Guidelines for Interstate*

*Transboundary Water Sharing in India*, jointly organised by NIAS and Centre for Cauvery Delta Development Studies, Tanjavor supported by India and Global Water Partnerships on November 19 and 20, 2007. She also organised a meeting on *Zonal Water Partnerships: Vision and Action* on December 18, 2007 and *National Dialogue to Evolve Parameters for Transboundary Interstate Water Sharing* at NIAS on December 28, 2007.

Prof. Narendar Pani prepared the proposal for the RBI programme on interdisciplinary approaches to economic issues. He prepared a proposal for a Centre for Conflict Resolution. He also prepared a discussion note on possible method of faculty evaluation. Prof. Pani organised the consultation, *Towards Engaged Social Sciences* held at NIAS on October 29 and 30, 2007. He taught courses on *Political Economy of India; Political Economy of the Media; Statistics; Methodology of Social Sciences; Philosophy of Economics* (with Dr. M. G. Narasimhan); and Sessions in Summer School on Philosophy, Foundation Course and Course on Sociology of India.

Dr. Carol Upadhy is Coordinator of the Ph.D. Programme. She organised and coordinated the consultation on the proposed Urban Studies Programme on September 18, 2007 acted as member of Core Group. With Prof. Vasavi she taught courses at NIAS Ph.D. Programme on *Anthropological Perspectives on the Economy*; and *Sociology of Organisations, and Sociology of India*. Dr. Upadhy is Chairperson, NIAS Housekeeping Committee.

Dr. Padma Sarangapani organised *DIETs: Potentials and Possibilities* a two day national consultation in collaboration with the Ministry for Human Resource Development on October 4 and 5, 2007. She was Co-Coordinator of the M.A. Education (Elementary) programme of Tata Institute of Social Sciences, Mumbai. Dr. Sarangapani is Managing Editor of *Contemporary Education Dialogue*, a biannual peer reviewed journal. She prepared and submitted *DIET Restructuring Note: Two Models* a concept note to the Principal Secretary, Primary and Secondary Education, Government of Karnataka, on November 20, 2008. She edited and contributed to the Sourcebook on Assessment: Mathematics for NCERT, New Delhi.



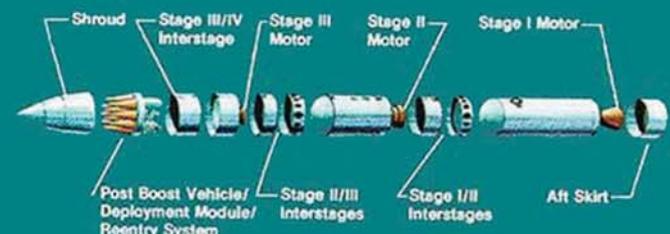
Prof. S. Chandrashekar, *J. R. D. Tata Visiting Professor*  
Prof. Rajaram Nagappa, *Visiting Professor*  
Prof. N. Ramani, *Visiting Professor*  
Mr. Arvind Kumar, *Associate Fellow (till October 2007)*  
Dr. Sonika Gupta, *Post-Doctoral Fellow (till June 2007)*

The International Strategic and Security Studies (ISSS) Programme was established at NIAS in 1996 with a broad objective of conducting academic and policy research in the field of national and international security issues. Over the last eleven years, the ISSS programme has established a fair degree of capability in the area of Security and Strategic Studies. It has won both national and international recognition. The ISSS programme has acted as the focal point for track-two dialogues between India and the US through its interactions with the Committee on International Security and Arms Control (CISAC) of the National Academy of Sciences (NAS), USA. These dialogues were initiated between the two institutions after the 1998 Pokhran tests to discuss, debate and understand the various issues between India and the US.

The objectives of the programme are to conduct and promote research on issues related to national and international security; to make an independent continuing assessment of various issues impacting national security and to review existing policies in the light of these changes; to advise various national and other entities on matters related to and affecting national security; and to disseminate through publications and other means, knowledge and information related to national and international security.

Keeping in mind the current geopolitical scenario and future challenges facing India, the programme at NIAS plans to maintain its focus mainly on China, Pakistan and the United States as well as specific global issues. The themes covered would include strategic dimensions of security, including conventional weapons, nuclear weapons and other weapons of mass destruction; science, technology and economic dimensions of security including infrastructure, industry, trade and commerce; issues related to nuclear energy; space security and issues of weaponisation of space; and joint projects with the Committee for International Security and Arms Control on issues related to the future of nuclear weapons and non-proliferation.

# International Strategic and Security Studies Programme



Cutaway of the Peacekeeper Missile from the presentation on *Pakistan's Missile Manufacturing Capabilities* by Prof. Rajaram Nagappa.

*Strategic Studies*

Prof. S. Chandrashekar, Prof. Rajaram Nagappa, Mr. Arvind Kumar and Dr. Sonika Gupta completed the sponsored study on *Assessment of China's Ballistic and Cruise Missile Capability*. The study covered missile capabilities, the missile production and launch centres, as well as the organisation adopted by the Chinese. This study was perhaps the first one of its kind in India that provided a comprehensive overview of the Chinese missile capabilities. The findings were presented to the sponsors and other interested agencies. A NIAS study report was brought out by the Programme.

As a continuation of the earlier work on Indo-US relations, critical assessments and position papers covering various aspects of the Indo-US civil nuclear deal were brought out.

The ISSS Programme also carried out an assessment of the solid rocket motor production capabilities of Pakistan. A NIAS report highlighting the findings has been disseminated to the strategic community in the country.

A study of *Pakistan's Babur Cruise Missile* was completed and a report on its capabilities and performance widely distributed.

A preliminary assessment of the implications of the Chinese Anti-Satellite Test (ASAT) on *Indian Space Security* was carried out.

## OTHER ACTIVITIES

A discussion meeting with a visiting team from China Institute of Contemporary International Relations (CICIR), Beijing was organised on April 11, 2007. The theme for the meeting was *Regional Security with a Focus on India-China Relations*. The team was headed by the President of CICIR, Mr. Cui Liru. Other members of the team were Mr. Hu Shisheng, Director, South Asian Studies Division, Mr. Fu Xiaoqiang, Deputy Director, Centre for Crisis Management and Mr. Li Xin, Deputy Director, Department of International Exchanges.

A discussion meeting on the topic of *Towards a Theory of Space Power* by members of the Institute of National Strategic Studies of the National Defence

University, Washington took place at NIAS on September 10, 2007.

Prof. Rajaram Nagappa served as a panelist in Shastra 2008, the IIT Student Seminar to discuss the Chandrayaan 1 Mission on October 11, 2007.

Prof. N. Ramani served as a member of the Committee on Modernisation of India Meteorological Department during December 2007 / January 2008.

The Seventh NIAS-CISAC dialogue was held on January 14, 2008. The session themes covered the Future of Nuclear Weapons and Indian and American perceptions on the Indo-US Nuclear Deal.

Prof. Raymond Jeanloz, CISAC Chair, delivered a public lecture (jointly organised by NIAS and the Indian Institute of Science) titled *From Earth to Stars: Toward Gigabar Pressures and Kilovolt Chemistry* on January 15, 2008 at NIAS.

Prof. N. Ramani served as a panelist at the India Sourcing Summit 2008, Bangalore on February 8, 2008.

A Discussion Meeting with Prof. Siegfried Hecker, Co-Director, Center for International Security and Cooperation, Stanford University and Dr. Gordon Jarvinen, Deputy Director, Seaborg Institute, Los Alamos National Laboratory on topics relating to *Evolving Nuclear Challenges and Nuclear Power Growth in the US* was held on March 18, 2008.



Pakistan's Ghaznavi Missile

A Doctoral Programme was initiated at the Institute in 2005, with the aim of developing a cadre of young scholars who could pursue and develop interdisciplinary research in a variety of areas as envisaged in the foundational document of the Institute, the Memorandum of Association. The Programme is financially supported by the Indian Space Research Organisation and the Department of Science and Technology, Government of India.

A Ph.D. Committee oversees the functioning of the programme. Rules and processes for coursework and other requirements for completing the Ph.D. have been framed. NIAS faculty have been offering a range of courses keeping in view the research interests and needs of the students.

The NIAS Ph.D. Programme has now completed three years and is developing into a well-integrated and unique programme with an emphasis on multi-disciplinary work. Most of our students are working across disciplines, often in areas which they have not earlier studied, creating a vibrant intellectual atmosphere on campus. For instance, interdisciplinary projects are marrying philosophy with biology, environmental science with sociology, education with anthropology, and remote sensing with archeology.

The programme is growing in strength, enabling the Institute to produce a set of scholars who will carry forward the research programmes and traditions already established by the distinguished faculty of the Institute. In future, the Ph.D. programme will be put on a more sustainable foundation and will expand both in terms of its scope and depth in order to meet the upcoming challenges of the nation. Towards this end, NIAS is initiating new areas of research and is upgrading the research facilities for environmental science and remote sensing.

### WEDNESDAY DISCUSSION MEETINGS BY PH.D. STUDENTS

**Ms. Meera Baindur and Ms. K. G. Sreeja**  
*Whose Lake is it Anyway? – Case Study of Hebbal Lake*, May 30, 2007.

**Mr. K. Jafar**  
*Non-Agrarian Village Economies: Second Phase of the Kerala Model*, February 6, 2008 (with Prof. Narendar Pani).

# Ph.D. Programme



**Ms. Anu Joy**  
*Canada's Elementary and Secondary School Education*, April 18, 2007.

**Ms. Swarnali Majumder**  
*Pictures from Data*, May 23, 2007.

**Mr. Nithin Nagaraj and Ms. Sajini Anand**  
*God Created the Integers..... and Started Working on Random Numbers*, July 18, 2007.

**Mr. Arun Murthi**  
*Shankara in the Eyes of Shankara: Misconceptions, Controversies and Contradictions in Shankara Vedanta*, February 27, 2008.

**Mr. M. Murugan**  
*Global Warming and Agroecosystems*, March 19, 2008.

**Mr. Narayan Sharma**  
*Primates on the Edge*, September 19, 2007.

**Ms. Sahana Udupa and Mr. Sailen Routray**  
*Securing Lives, Securing Livelihood*, April 25, 2007.

**Ms. Indira Vijaysimha**  
*Possible Modernities and the Role of Science Education*, November 21, 2007.

#### PH.D. COMMITTEE

Chairman : Prof. B. V. Sreekantan  
Coordinator : Dr. Carol Upadhya  
Members : Dr. M. G. Narasimhan  
Dr. Sindhu Radhakrishna  
Prof. Sundar Sarukkai

#### PH.D. STUDENTS

##### School of Humanities

Ms. Meera Baidur  
Mr. S. K. Arun Murthi  
Ms. M. B. Rajani

##### School of Natural Sciences and Engineering

Ms. P. S. Sajini Anand  
Mr. Kishor G. Bhat  
Mr. Mayukh Chatterjee  
Mr. Rishi Kumar  
Ms. Swarnali Majumder  
Mr. M. Murugan

Mr. Nithin Nagaraj  
Mr. Narayan Sharma  
Ms. K. G. Sreeja  
Mr. Robin V. Vijayan

##### School of Social Sciences

Mr. K. Jafar  
Ms. Anu Joy  
Mr. Rahul Mukhopadhyay  
Ms. Leena Pascal  
Ms. Sowjanya R. Peddi  
Mr. Sailen Routray  
Ms. Sahana Udupa  
Ms. Indira Vijaysimha



Mayukh Chatterjee

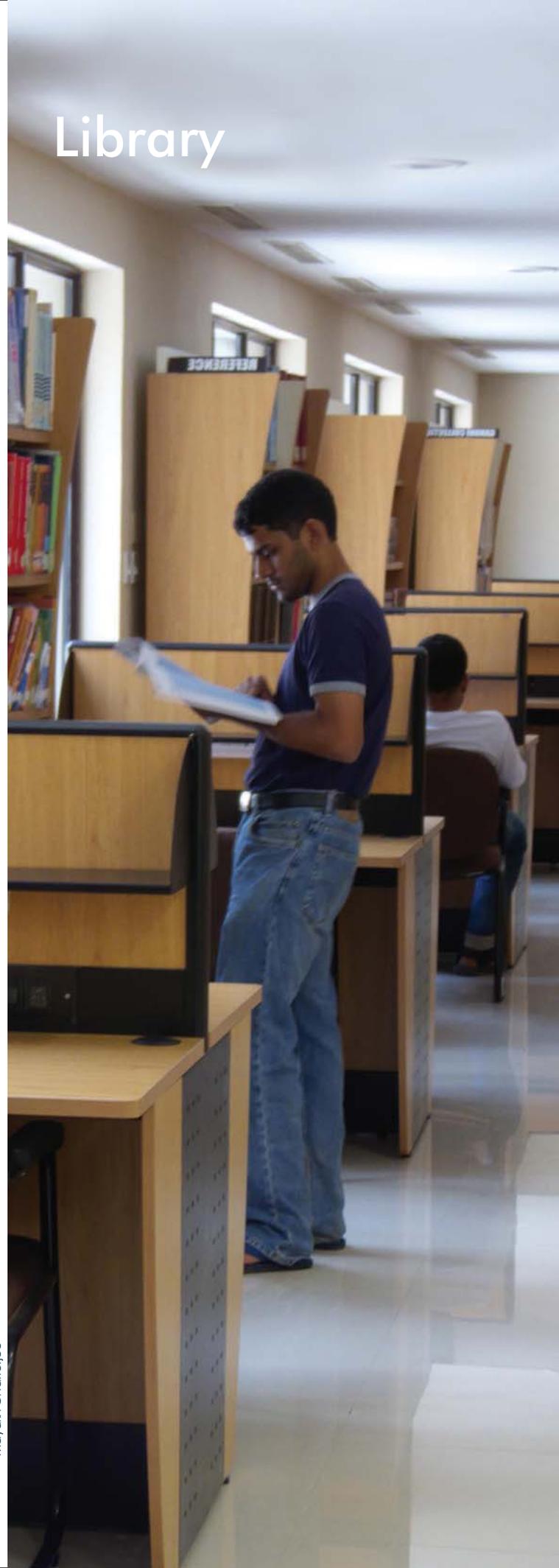
# Library

*I*t has been over a year in the new premises. The library continues to support the research and educational programmes of the Institute by adding books and journals on a regular basis. We have added about 850 books and subscribed to 5 new journals during the year. The collection stands at 9850 books, 1485 back volumes and 54 current subscriptions. The library proposes to subscribe to all Indian journals relevant to the research programmes of the Institute. The library is subscribing to JSTOR from this year. The scanning, printing and photocopying facility is being utilized by students extensively. The library has initiated an open access institutional repository of NIAS using reprints software. The repository is being populated with published articles and project reports.



## LIBRARY RESOURCES

Books	9850
Current Subscriptions	54
Bound Volumes	1485
Audio Tapes and Videos	1400
NIAS Lectures on DVDs	148
Articles and Clippings	750
NIAS Publications	112
Eprints Repository Records	90



# Administration



Mayukh Chatterjee

As a registered society, NIAS derives its administrative and financial authority through the Society, represented by the General Body. The Council of Management which is currently chaired by Prof. M. S. Swaminathan, is vested with full power and authority to do all acts, deeds, etc which are necessary for the promotion and fulfillment of the objectives set out in the Memorandum of Association. The Director, presently Dr. K. Kasturirangan, is the chief executive and exercises general, administrative and financial control over the affairs of NIAS. The Director is assisted in the administrative and finance matters by the Head (Administration).

Besides management of all resources such as infrastructure, finance, human resources, estates and general administrative matters are also handled by the Head (Administration). The Administration enables recruitment and deployment of staff, servicing their needs and empowering them to effectively contribute to the objectives of NIAS. It services the doctoral programme in which there are at present twenty students working for a Ph.D. The Administration also takes care of the campus, its facilities such as the auditorium, lecture halls, meeting rooms, classrooms, guest house, dining halls and all other infrastructure of NIAS. The Administration also plays a unique role in conducting various programmes including training courses. Procurement of materials and consumables, maintenance of facilities and inventory control, are also done by administration. Compliance with various statutory requirements such as Provident Fund, Income Tax, VAT, etc. is also the responsibility of the Administration. The administrative set up consists of an Office Manager, an Administrative and Accounts Officer, an Assistant Office Manager and other secretarial, office, and supporting staff, in all numbering 27.

During 2007-2008, the process of induction has been completed for six faculty positions of which three have already joined (Prof. Narendar Pani, Prof. N. Ramani, and Dr. Malati Das) and the other three, (Dr. Lalitha Sundaresan, Dr. Arindam Chakrabarti and Dr. Srinath Raghavan) are expected to be in position soon. Shri Arvind Kumar, Associate Fellow and Dr. Sonika Gupta, Post-Doctoral Fellow were relieved from NIAS during 2007-2008 to enable them to take up assignments in Manipal University and Indian Institute of Technology, Chennai, respectively.

Dr. Padma M. Sarangapani, Visiting Associate Fellow, left NIAS on completion of her tenure during 2007-2008.

Finance management, accounting and auditing are also being done by the Administration. It carries out resource mobilization and expenditure control. Expenditure incurred for regular activities of NIAS including the doctoral programme was Rs.357.67 lakhs during 2007-2008. The corresponding amount handled in respect of activities such as projects, training courses, etc is Rs.341.66 lakhs. NIAS has an investment of Rs.1425.14 lakhs as on March 31, 2008.

During the financial year 2007-2008, the Administration entered into an agreement with Global Water Partnership (GWP) to host the GWP-South Asia Regional Secretariat in NIAS. This came

through the linkage already established by the School of Social Sciences through the project on *Establishing and Strengthening of Zonal Water Partnerships in India* and *Dialogues to Evolve Guidelines for Conflict Resolution of Inter-State Transboundary Water Sharing in India*. As a host institution, NIAS has handled foreign exchange worth Rs.120.55 lakhs in 2007-2008 in close liaison with GWP, Stockholm and Regional Water Partnerships of six countries in this region. This has enhanced the revenue of NIAS by Rs.6.15 lakhs in 2007-2008.

Overall, the year 2007-2008 has generated a surplus of Rs.12.96 lakhs. The year also witnessed acquisition of new facilities, such as six additional rooms, two suites and two dining halls in the guest house, besides several other improvements in the campus including augmentation of internet and data links.



Mayukh Chatterjee

The canteen has thrown up topics that were later the subjects of Wednesday Discussion Meetings.

# Courses



Sir Mark Tully delivering the valedictory address at the Senior Executive Course

The year was marked by the continuation of four of the well established short-term courses and the introduction of a new one on *Energy Security and Management*.

## THE FIFTH NIAS-DST TRAINING PROGRAMME ON MULTIDISCIPLINARY PERSPECTIVES ON SCIENCE AND TECHNOLOGY (AUGUST 19 TO 31, 2007)

The programme, fifth in the series was inaugurated by Dr. Arcot Ramachandran, delivering inaugural address on the topic of *Science and Technology for Sustainable Development*. The programme was attended by twenty six senior level scientists and technologists, drawn from diverse disciplines representing different scientific institutions all over the country. The lectures in the course of the programme were organised around specific themes like globalisation, agriculture, climate change and global warming, water and a panel on nuclear energy. In addition to that there were lectures on Physics in the 21st Century, Politics and the Environment, Human Genetics Research in India, Improving Gemstones: Application to Industry and Black Holes. A very stimulating experience came out of the presentations made by the participants relating to their professional challenges during the outdoor programme organised at the Kabini River Lodge as part of the programme. Participants visited Centre for Research and Education in Science & Technology, Indian Institute of Astrophysics (CREST), Hoskote. A Dance Recital: Bharatanatyam from the artistes of Bharatanjali, was arranged. Mr. G. E. Vahanavati, Solicitor General, Supreme Court of India delivered valedictory address on *Role of Law in the context of Liberalisation*.

This programme was coordinated by Dr. M. G. Narasimhan with Dr. Sharada Srinivasan.

## THE THIRD NIAS-DST WORKSHOP ON DIMENSIONS OF NANOTECHNOLOGY: SCIENCE, TECHNOLOGY, BUSINESS AND SOCIETY (SEPTEMBER 10 TO 15, 2007)

The grand success of the first and second Workshop as evidenced from the feedback of the 70 participants has persuaded Department of Science and Technology to extend an invitation to NIAS for the third Workshop. The participants of the programme have indicated that they found the presentations very stimulating and that they have benefited from their interaction with eminent scientists. Its purpose is to provide the orientation and planning skills needed



Shivkumar

The Fifth NIAS-DST Training Programme on *Multidisciplinary Perspectives on Science and Technology*

by the group, and in particular, to offer views of the broader scientific, economic, social and cultural milieu in which the Indian scientific enterprise could develop in this century. Eminent faculty including Prof. C. N. R. Rao, and Prof. A. K. Sood interacted with 29 participants drawn from different national laboratories covering a diversity of disciplines. It was a wonderful assembly of eminent people from various fields such as from physics, chemistry, biology, materials science, electronics and so on.

This Workshop was coordinated by Prof. S. Ranganathan.

### THE TWENTY SECOND NIAS COURSE FOR SENIOR EXECUTIVES ON EXCELLENCE IN LEADERSHIP (JANUARY 7 TO 12, 2008)

The course was inaugurated by Shri Jaswant Singh, Honourable Member of Parliament. The valedictory address was given by Sir Mark Tully, Former Chief of Bureau, BBC New Delhi. 31 nominations received. Due to last minute inconveniences 5 could not attend. 26 participants (25 gentlemen and 1 lady) from public and private sector organisations attended the Course. The speakers included Shri Sharad Joshi, Dr. B. P. Mathur, Shri Suresh Prabhu, Prof. Anandlingam,



S. Suresh

The Third NIAS-DST Workshop on *Dimensions of Nanotechnology: Science, Technology, Business and Society*



Shivkumar

The Twenty Second NIAS Course for Senior Executives on *Excellence in Leadership*

Prof. Sadagopan, Dr. R. Chidambaram, Shri Vijay Kelkar, Prof. S. Chandrashekar, Prof. S. S. Meenakshisundaram, Shri Suresh Jayaram, Dr. U. R. Ananthamurthy, Prof. B.V. Sreekantan and Dr. M. S. Valiathan.

The course schedule also included early morning yoga classes, visit to the Infosys Leadership Institute in Mysore, a cohesive presentation on the research programmes and mission of National Institute of Advanced Studies and a panel discussion on the future of information technology. The second Annual Dr.

Raja Ramanna memorial lecture was organised in conjunction with the course, and this year the speaker was Dr. R. Chidambaram. The inaugural lecture given by Shri Jaswant Singh and the valedictory address by Sir Mark Tully emphasized the importance of knowledge-leaders who would interact with the society with a futuristic vision. Carnatic vocal recital by the renowned vocalist Smt Sudha Ragunathan was yet another special event for the course. The valedictory programme concluded with the presentation of certificates to the course participants by the chief guest.



Shivkumar

The Eleventh NIAS Course on *An Integrated Approach to Knowledge and Information*



Shivkumar

The First NIAS-DST Programme on *Energy Security and Management*

We did solicit many suggestions (informally and through formal mechanisms) from the participants on the design, schedule and other aspects of the Course. The course programme was widely appreciated with particular emphasis on the top leaders who could come and speak to the participants, the organisation and conducting of the course. The course participants represented diverse sectors and organisations, and this time with better representation from private sector. This diverse background itself was found a fulfilling factor for the participants. Also, perhaps, this course had the youngest Executive as participant since this course series began in 1989 (Shri Kapil Vyas, Partner, Standard Oils and Greases, Mumbai). The course was coordinated by **Dr. Sangeetha Menon**.

**THE ELEVENTH NIAS COURSE ON AN INTEGRATED APPROACH TO KNOWLEDGE AND INFORMATION (JANUARY 16 TO FEBRUARY 5, 2008)**

The eleventh NIAS course for University and College Teachers was co-sponsored by University Grants Commission, New Delhi and Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore. The theme for this Course was *Frontier Areas of Research and Education: The Role of Universities*. The course was inaugurated by Prof. P. Balram, Director, Indian Institute of Science, Bangalore. The title of inaugural address was on Reforming Indian Universities: Triad of Universities, Research Institutes and Industries.

The course attracted over 140 applications from different universities and colleges spread across states. The total number of participants was 27 spread over 16 states and 21 disciplines. The gender breakup was 15 men and 12 women.

The lectures delivered by eminent speakers in the programme covered Space and Security, When Mathematics became Technology: The World Turing Made, Role of Universities in Building Civil Societies, Cultural Studies and New Institutional Spaces; and Teaching and Research: Dichotomy to Synthesis. This year the course had two international speakers. Dr. Howard Sankey, University of Melbourne, Australia delivered a lecture on *Do Animals have a Mind*. Dr. Cresida J. Heyes, University of Alberta, Canada deliberated upon *What is Philosophy's Future? Constraints in Humanistic Education*.

The course had three workshops and they were organised on *Living with Large Wildlife: Science and Conservation in India*; *Life Skills Education: Concept, Context, Content*; and *Indian Philosophical Traditions and Contemporary Thought*. The panel discussion on *Evaluating Special Economic Zones* was also organised. As part of the course, two visits one to Belur, Halebid and Shravanabelagola and the other to an ISRO facility was organised.

**Dr. B. K. Anitha and Prof. Anindya Sinha** were the coordinators of the course.

THE FIRST NIAS-DST PROGRAMME ON ENERGY SECURITY AND MANAGEMENT (FEBRUARY 18 TO 23, 2008)

The programme was first of its kind under the auspices of the Department of Science and Technology. The programme was inaugurated by Dr. Anil Kakodkar on the topic of *Nuclear Energy*. Twenty eight participants drawn from various scientific and research institutions in the country, participated in the programme. The lectures delivered by energy specialists in the country, covered various forms of

non-renewable and renewable forms of energy, the economics of demand and supply with their geopolitical overtones. Cultural programme on *Dance Ballet: Janma Bhoomi* was presented by the group of artistes from Prabhat Kalavidaru, Bangalore. The valedictory talk was delivered by Prof. D. P. Sen Gupta on *Advancing IST by half-an-hour*.

The programme was organised by Prof. D. P. Sen Gupta, Principal Coordinator and Dr. M. G. Narasimhan, Co-coordinator.



Shivkumar

A Bharatanatyam performance by Bharatanjali Dance Troupe, Bangalore, during fifth NIAS-DST Training Programme on *Multidisciplinary Perspectives on Science and Technology*

Visitors play an important role in the NIAS ethos. They help the community at NIAS, and the city of Bangalore, to keep in touch with some of the latest developments in a variety of fields. They do this through lectures as well as a series of longer-term associations with the Institute.

## MEMORIAL LECTURES

EIGHTH M.N. SRINIVAS MEMORIAL LECTURE

**Prof. Satish Deshpande**

Department of Sociology, Delhi School of Economics,  
Delhi University

*Caste as Capital: Retelling the Story of Our Modernity*

November 27, 2007

SECOND DR. RAJA RAMANNA MEMORIAL LECTURE

**Dr. R. Chidambaram**

Principal Scientific Adviser to Government of India,  
New Delhi

*Nuclear Energy in India: Self-Reliance and  
International Cooperation*

January 8, 2008

THIRD MOHANDAS MOSES MEMORIAL LECTURE

**Shri Sudhakar Rao**

Chief Secretary, Government of Karnataka

*Reminiscences of Shri Mohandas Moses and Launch  
of His Biography – A Stranger in Paradise*

March 24, 2008

## PUBLIC LECTURES

**Dr. Jacques Arnould**

Centre National d'Etudes Spatiales, Paris

*Space: A New Ethical Frontier*

December 13, 2007

**Dr. Frances E Allen**

IBM Fellow Emerita

T. J. Watson Research Laboratory

*IBM – NIAS – ACM Turing Award Public Lecture:  
Compilers and Parallel Computing Systems*

December 19, 2007

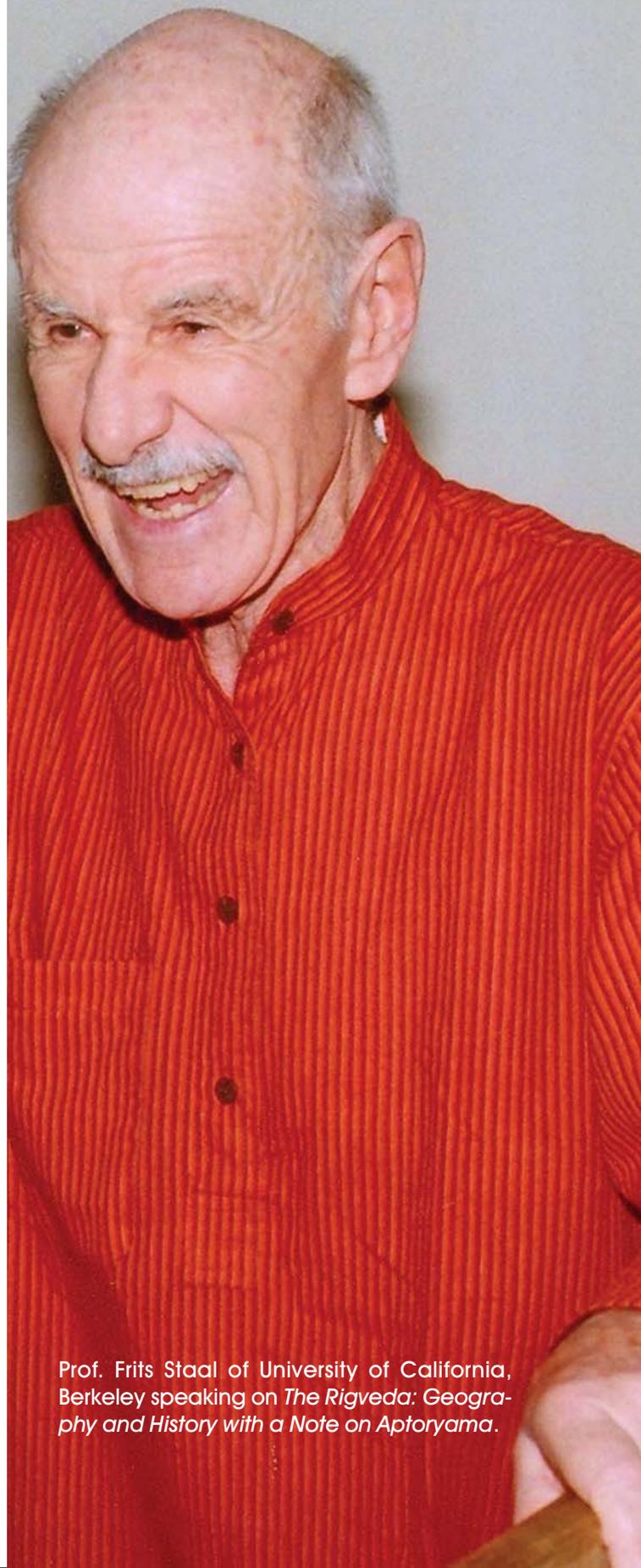
**Prof. Rama Ranjan Mukherji**

Formerly Vice-Chancellor, Burdwan and Rabindra  
Bharati Universities and Chancellor, Tirupati  
Rashtriya Sanskrit Vidyapeetha

*Comparative Aesthetics – Indian and Western*

December 26, 2007

# Visitors



Prof. Frits Staal of University of California, Berkeley speaking on *The Rigveda: Geography and History with a Note on Aptoryama*.

**Dr. M. S. Valiathan**  
Honorary Adviser, Manipal Academy of Higher  
Education, Manipal  
*A Science Initiative in Ayurveda*  
January 11, 2008

**Sir Mark Tully**  
Former Chief of Bureau, British Broadcasting  
Corporation, New Delhi  
*The Indian Way Ahead*  
January 12, 2008

**Prof. Raymond Jeanloz**  
Earth and Planetary Science and of Astronomy,  
University of California, Berkeley  
*From Earth to Stars: Toward Gigabar Pressures and  
Kilovolt Chemistry*  
January 15, 2008

**Dr. R. P. Singh, FNAE**  
CMD, Power Grid Corporation of India Limited,  
Gurgaon  
*Growth of Power Sector in India*  
January 16, 2008

**Prof. Pulapre Balakrishnan**  
Nehru Memorial Museum and Library, New Delhi  
*Visible Hand: Public Policy and Economic Growth  
in the Nehru Era*  
February 11, 2008

## GUEST AND SPECIAL LECTURES

**Prof. Frits Staal**  
University of California, Berkeley  
*The Rigveda: Geography and History with a Note  
on Aptoryama*  
April 19, 2007

**Prof. Frits Staal**  
University of California, Berkeley  
*Vedic Contributions to the Philosophy of Language*  
April 20, 2007

**Prof. Naseem Rehman**  
European Institute of Advanced Study, Venice and  
University of Trieste, Trieste  
*Elementary Particle Physics and Philosophy*  
May 29, 2007

**Prof. T. S. Rukmani**  
Concordia University, Montreal  
*Dynamics of Nivrutti and Pravritti in Hinduism: An  
Overview*  
June 1, 2007

**Prof. Anil Kumar**  
Honorary Professor, Department of Physics and NMR  
Research Center, Indian Institute of Science, Bangalore  
*Quantum Information Processing and Computations  
by NMR*  
July 3, 2007

**Dr. Stig Toft Madsen**  
Senior Researcher, Nordic Institute of Asian Studies,  
Copenhagen, Denmark  
*Governing Science and Managing Development: Do  
Denmark and India Compare?*  
July 20, 2007

**Dr. S. S. Panwalkar**  
Krannert School of Management, Purdue University,  
USA  
*What is Operations Management?*  
July 24, 2007

**Dr. Amita Baviskar**  
Institute of Economic Growth, Delhi  
*The Cultural Politics of Environment and  
Development: The Indian Experience*  
September 19, 2007

**Shri Ajai Choudhry**  
Additional Secretary, Ministry of External Affairs,  
New Delhi  
*Some Diophantine Problems Concerning Perfect  
Powers of Integers*  
September 19, 2007

**Shri Ajai Choudhry**  
Additional Secretary, Ministry of External Affairs,  
New Delhi  
*Multigrade Equations and the Easier Waring's  
Problem*  
September 20, 2007

**Ms. Bidatmika Mohanty**  
South Asia Research Analyst – Counter Terrorism,  
World-Check, Singapore  
*India and Pakistan Relationship Under the Shadow  
of Nuclear Weapons*  
October 15, 2007

## REVISITATION LECTURE SERIES

**Prof. Robert W. Fuller**

Writer, California, USA

*Democracy's Next Step: Building a Dignitarian Society*

October 30, 2007

**Dr. Kavita Philip**

Associate Professor, Women's Studies, University of California, Irvine

*Interdisciplinary Approaches to Gender and Science Studies*

November 23, 2007

**Dr. Monima Chadha**

School of Bioethics and Philosophy, Monash University

*Self-Knowledge and Embodiment*

November 29, 2007

**Ms. Malini Ranganathan**

University of California, Berkeley

*Municipal Water and State - Society Relations at the Periphery: Examining the Implications of Reforms in Greater Bangalore*

December 17, 2007

**Dr. Srinath Raghavan**

Defence Studies Department, King's College, London  
*Civil-Military Relations in India: The China Crisis and After*

December 24, 2007

**Dr. Howard Sankey**

University of Melbourne, Australia

*Science and Reality*

January 28, 2008

**Dr. Anil Kakodkar**

Chairman, Atomic Energy Commission and Secretary  
Department of Atomic Energy, Mumbai

*Nuclear Energy*

February 18, 2008

**Dr. S. L. Rao**

Chairman, ISEC, Bangalore

*Regulatory Authority: Power Reforms*

February 19, 2008

**Dr. V. Raghuraman**

Principal Advisor & Chief Executive Confederation  
of Indian Industries, New Delhi

*Energy Pricing: Impact on National Productivity*

February 20, 2008

**Prof. S. Ranganathan**

NIAS

*De Re Metallica by Georgius Agricola: A Renaissance in Metallurgy*

October 3, 2007

**Prof. Uma Chakravarti**

Delhi

*Gendering the Notion of Transitions in Indian History: A Critical Analysis of the Mahabharata*

October 26, 2007

**Prof. Vidyanand Nanjundiah**

Indian Institute of Science, Bangalore

*One Hundred and Fifty Years Without Darwin are Enough: The Origin of Species as Seen Today*

November 30, 2007

**Prof. Timothy Poston**

NIAS

*When Mathematics Became Technology*

December 21, 2007

## WEDNESDAY DISCUSSION MEETINGS

**Dr. Ramachandra Guha**

*Unnatural Nation / Unlikely Democracy: Writing the History of Independent India*

June 27, 2007

**Dr. Brindha Sitaram**

*A New Paradigm in Cancer Care: Psycho-oncology*

July 4, 2007

**Dr. Chandar S. Sundaram**

*War and Society in Colonial India*

October 3, 2007

**Dr. R. Vedavalli**

*Energy for Development: 21st Century Challenges of Reform and Liberalisation in Developing Countries*

October 31, 2007

**Shri S. T. Baskaran**

*Film Studies in India: Some Dominant Trends*

November 7, 2007

**Dr. Ashwin Mahesh**

*Communicating the Good Society*

November 14, 2007

**Prof. B. D. Chattopadhyaya**  
*D. D. Kosambi's Indology and its Legacy*  
December 12, 2007

**Prof Vidyanand Nanjundiah**  
*The Issue of Scientific Integrity*  
March 5, 2008

## OTHER VISITORS

**Dr. Anupam Srivastava**, Director of the Asia Programme at the Center for International Trade and Security (CITS), University of Georgia (UGA), and Adjunct Faculty of UGA's School of Public and International Affairs, where he teaches courses on International Security, Political Economy, and Asian Affairs visited NIAS on May 24, 2007. The International Strategic and Security Studies Programme of NIAS organised a discussion meeting with Dr. Srivastava on the theme *Pursuing US-India Technology-embedded Cooperation: Practical Recommendations*. Dr. V. K. Aatre, formerly Secretary, Defence Research and Development Organisation (DRDO) and Scientific Advisor to Raksha Mantri presided over the discussion meeting.

**Shri Suresh Prabhu**, Member of Parliament (Lok Sabha) and Chairman, Global Water Partnership - South Asia, visited NIAS on May 24, 2007 in connection with setting up of South Asian Regional Secretariat of Global Water Partnership with NIAS as the Host Institute. He had a meeting involving Professors B. V. Sreekantan, N. Shantha Mohan and Shri E. K. Kutty.

**Prof. T. S. Rukmani** from Concordia University, Montreal, Canada, and a renowned scholar of Advaita, Samkhya and Yoga visited the Centre for Philosophy from May 29 to June 5, 2007. She gave a talk at NIAS on June 1, 2007 on *Dynamics of Nivriti and Pravriti in Hinduism: An Overview*. Prof. Rukmani again visited NIAS from July 25 to August 1, 2007.

**Prof. Naseem Rehman**, European Institute of Advanced Study, Venice and University of Trieste, Trieste visited NIAS from May 26 to 31, 2007. He gave a talk at NIAS on May 29, 2007 on *Elementary Particle Physics and Philosophy*.

A group of officials from **Titan Industries** visited NIAS on June 11, 2007 and had a discussion with

NIAS faculty regarding the establishment of a Centre for Urban Affairs in NIAS.

A group of delegates from the **Ministry of External Affairs** visited NIAS and had a meeting with some of the NIAS faculty on June 19, 2007.

**Dr. Stig Toft Madsen**, a social anthropologist, from the Nordic Institute of Asian Studies, visited NIAS from July 18 to 20, 2007. Dr. Madsen is Senior Researcher at NIAS - Nordic Institute of Asian Studies in Copenhagen, Denmark. An anthropologist and sociologist by training, he has contributed to the study of South Asian Environments, Village India, the Legal Profession, Religion, Human Rights and Conflict Transformation. He has participated in a study of *Triple Helix* collaboration between universities in the Nordic countries, India and China. He gave a talk on July 20, 2007 on *Governing Science and Managing Development: Do Denmark and India Compare?*

**Prof. Subbiah Arunachalam**, from M. S. Swaminathan Research Foundation, Chennai, visited NIAS as Visiting Professor, School of Humanities for a period of four months starting from August 10, 2007. He was supported by Prof. S. Ranganathan's Office of Naval Research (ONR) project. Prof. Arunachalam is India's leading expert on science studies, evaluation of science and so on. In recent times, he has been the championing voice from India on Open Access. In NIAS he worked on the creation of a science atlas as part of Prof. Ranganathan's project.

**Shri Ajai Choudhry**, Additional Secretary, Ministry of External Affairs visited NIAS from September 16 to 20, 2007. He gave a talk on September 19, 2007 on *Some Diophantine Problems Concerning Perfect Powers of Integers* and on September 20, 2007 on *Multigrade Equations and the Easier Waring's Problem*.

**Ms. Ragini Gupta**, Cultural Affairs Officer, U.S. Consulate General in Chennai visited NIAS on October 4, 2007 and had a meeting with NIAS faculty and discussed future programming possibilities between NIAS and the U.S.

**Prof. Robert W. Fuller**, USA visited NIAS from October 26 to 31, 2007. He gave a talk on *Democracy's Next Step: Building a Dignitarian Society* on October 30, 2007.

## ASSOCIATES' PROGRAMME

**Dr. Kavita Philip**, Associate Professor, Women's Studies Programme, University of California, Irvine, visited the School of Humanities during November - December 2007 as part of the ONR project of Prof. S. Ranganathan. Her interests ranged from gender to science studies. On November 23, 2007 she gave a talk on *Interdisciplinary Approaches to Gender and Science Studies*.

A team of **Alliance for Global Education**, a US-based institution that delivers semester-long study abroad programmes for US undergraduates represented by Mr. Tom Roberts, Secretary, Management Committee; Dr. David C. Larsen, Chair, Management Committee; Dr. Andrea Custodi, Director for India Programmes and Dr. Puja Batra, Consultant visited NIAS on December 17, 2007 and interacted with Professors B. V. Sreekantan, Sundar Sarukkai, Anindya Sinha, Drs. B. K. Anitha, M. G. Narasimhan and Shri E. K. Kutty. During the interaction, possible tie-ups with NIAS faculty in terms of the research work of the respective faculty were discussed.

**Prof. C. V. Vishveshwara**  
Bangalore  
*Cosmos and Culture*  
April 20, 2007

**Mr. S. K. Das, IAS (Retd.)**  
Honorary Advisor, Indian Space Research Organisation, Bangalore  
*Touching Life: The outreach of the Indian Space Programme*  
September 7, 2007

**Prof. Claire Sheridan**  
Saint Mary's College of California, USA  
*Ballet: A Universal Language*  
October 29, 2007

**Shri Jaswant Singh**  
Hon'ble Member of Parliament, New Delhi  
*Excellence in Leadership*  
January 7, 2008



Ms. Priya Sarukkai-Chabria speaks on her book *Generation 14 – A Novel* during a Literary, Art and Heritage Forum meeting.

**Dr. K. Eric Drexler**

Chief Technical Advisor to Nanorex, Inc., USA  
*Advanced Nanotechnology: The Road to Sustainable Abundance*  
February 7, 2008

#### LITERARY, ART AND HERITAGE FORUM

**Shri Anju Makhija**

Mumbai  
*Seeking the Beloved: Translations of Shah Abdul Latif, the 16th Century Sindhi Sufi Poet*  
April 13, 2007

**Mr. Sailen R. Routray**

*A Reading of Poems Selected from the Volume Mruttikaara by Bharat Majhi*  
August 8, 2007

**Mr. Sailen R. Routray**

*The Poetry of Basudev Sunani*  
September 6, 2007

**Prof. Ananth Rao**

School of Informatics and Engineering, Flinders University, Australia.  
*Kanakadasa's Ramadhanya Charithre: the story of 'Rama's Grain'*  
January 2, 2008

**Jean-Marc Matos, and Anne Holst (K. Danse, France)**

*GAMEPLAY: An Experiment with Digital Media and Dance*  
March 1, 2008

**Prof. Peri Bhaskararao**

Research Institute for Languages & Cultures of Asia and Africa, Tokyo University of Foreign Studies, Japan  
*Cultural Information from Oral Texts: The Narration of the Pis-itt rites [social paternity rites] of the Todas of the Nilagiris*  
March 7, 2008

**Ms. Priya Sarukkai-Chabria (with Arshia Sattar)**

*Book Reading: Generation 14 - A Novel*  
March 25, 2008

#### CULTURAL PROGRAMMES

**Kumari B. Bhanumati and Team**

The Bharatanjali Dance Troupe, Bangalore  
*Bharatanatyam Performance*  
August 28, 2007

**Mysore M. Nagaraj and Dr. Mysore M. Manjunath**

Mysore  
*Violin Duet by Mysore Brothers*  
September 13, 2007

**Smt Sudha Ragunathan**

Chennai  
*Carnatic Vocal Recital*  
January 7, 2008

**Students of Oxford English School**

Bangalore  
*Putti by R.K. Narayan*  
*The Seer Who Couldn't See ... Saw*  
January 31, 2008

**Prabhat Kalavidaru**

Bangalore  
*Dharma Bhoomi: A Dance Ballet*  
February 22, 2008

#### FILM SCREENING

**Dr. Radhakrishna**

Indian Institute of Science, Bangalore  
*US Nuclear Test - Do as we say and not as we do*  
November 22, 2007



Shri Sharad Joshi, Hon'ble Member of Parliament speaking on *Metaphysics of Leadership* during the Senior Executives Course.



The faculty at NIAS reflects a variety of skills, specialisations and experience. This has consolidated the inherent tendency towards multidisciplinary work. They have also been active in interacting with the larger community in India and abroad through lectures and conferences. The year has also seen several faculty members' talents being recognised through awards or by other institutions tapping their expertise.

## HONOURS AND AWARDS

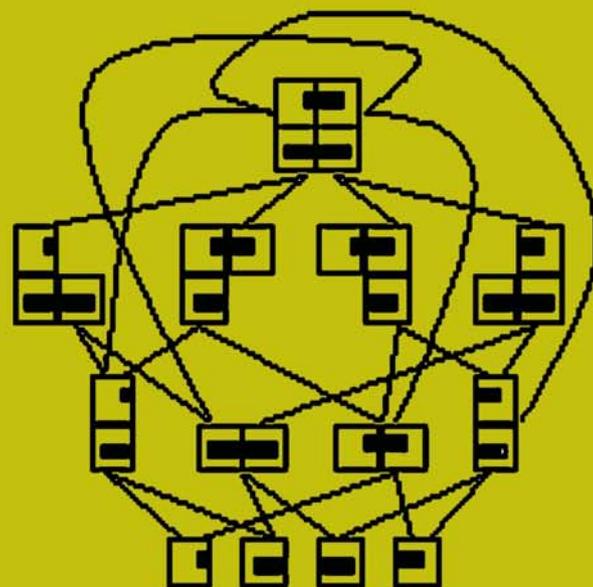
**Dr. K. Kasturirangan**, Director was conferred *Jewel of Ruia-2007* for The Jewel of Ruia Awards Function, Ruia College Alumni Association, Shikshana Prasaraka Mandali's Ramnarain Ruia College on December 8, 2007. He was also conferred *Maharana Udai Singh Award 2007 - 2008* for distinguished services in the field of Environment by Maharana of Mewar Charitable Foundation, Udaipur on March 2, 2008. He received Honorary Doctorate Award for the services to the academic and research field with social perspective by SRM University, Chennai on March 30, 2008.

**Prof. Dilip R. Ahuja** was a lead author and review editor for the IPCC – Intergovernmental Panel of Climate Change - which shared the 2007 Nobel Peace Prize. Prof. Ahuja was acknowledged by the IPCC Chairman and the Secretariat, as well as by the Prime Minister of India. He is also a Member of the Board, School of Interdisciplinary and Trans-disciplinary Studies, Indira Gandhi National Open University, New Delhi.

**Dr. B. K. Anitha** was part of an Expert Committee constituted by Indira Gandhi National Open University (IGNOU), to develop Knowledge Modules that can serve as a distance education material for education managers in higher education. Dr. Anitha is Organizing Secretary of Emerging Directions in Global Education (EDGE). She was nominated as the Executive Committee Member of Mahila Samakhya, Karnataka, a Government of India Project working in nine districts of Karnataka.

**Prof. S. Chandrashekar** was invited to serve as a Panel Member on the topic of *A Global Missile Launch Surveillance System for Strategic Stability* at the Conference on Security and Cooperation in South Asia: A Global Perspective. The Conference was jointly organised by the Massachusetts Institute

# Faculty



A detail from the presentation *Cognition: From Concept to Consciousness* by Dr. Rajesh Kasturirangan.

of Technology (MIT), the German Federal College for Security Studies (BAKS) and the Institute for Peace Research and Security Policy, University of Hamburg and held in Berlin, Germany during October 8 to 10, 2007.

**Dr. Sangeetha Menon** was invited to be a Distinguished Member of the International Society for Science and Religion, an international body whose invited members include Nobel Laureates. She gave a public lecture at Bharatiya Vidya Bhavan, London, in June 2007. Dr. Menon was invited to be the Shivdasani Fellow at the Oxford Centre for Hindu Studies, Oxford University, Trinity Term 2007. She was also Visiting Fellow at the Nanzan Institute for Religion and Culture, Nagoya, Japan, and Institute for Anthropology, Nanzan University, Fall 2007.

**Prof. Shantha Mohan** is a Member, National Resource Group, Mahila Samakhya, Government of India, New Delhi. She is Member of the Committee constituted for addressing *Sexual Harassment of Women at the Workplace*, ISAC, ISRO, Bangalore and Joint Secretary, Board of Governors, India Water Partnership, New Delhi.

**Prof. Rajaram Nagappa** served on the International Jury for Innovation Awards instituted by the FRP Institute and JEC Composites (France).

**Prof. Narendar Pani** is a Member of the Board of Myrada, Bangalore and the Board of Governors, Institute for Social and Economic Change, Bangalore. He is also on the Editorial Advisory Board of the Journal for Social and Economic Development.

**Prof. S. Ranganathan** received Distinguished Alumnus Award, Indian Institute of Science on March 3, 2008. He is Honorary Professor, Harbin Institute of Technology, Harbin, China and Member, International Advisory Committee, Euroschool in Materials Science, Ljubljana, Slovenia.

**Dr. Padma M. Sarangapani** is a Member, Editorial Advisory Board, Contributions to Indian Sociology. She is also Member, Trimester Review Committee appointed by the Government of Karnataka to review the trimester programme.

**Prof. P. K. Shetty** received the Prestigious Karnataka State Rajyotsava Award for the year 2007.

He also received the Vocational Excellence Award by Rotary International District 3190 and Rotary Bangalore R. T. Nagar on November 20, 2007.

**Prof. Anindya Sinha** is a Nominated Member of the International Jury, International Biology Olympiad, Saskatoon, Canada from July 13 to 24, 2007. He is Re-nominated Member, Editorial Board, Current Science, Indian Academy of Sciences, Bangalore, January 2008 to December 2010. He was also Nominated Member of the National Steering Committee for Science and Astronomy Olympiads, Government of India, February 2008. He was invited as a Visiting Professor, Primate Research Institute, Kyoto University, Inuyama, Japan, February 19 to 22, 2008. He is a Nominated Member, Governing Council, Conservation and Society, Ashoka Trust for Research on Ecology and the Environment, Bangalore, March 2008 to February 2011.

**Dr. Sharada Srinivasan** received Fellowship of the Royal Asiatic Society of Great Britain. She also won the Indian Institute of Metals Certificate of Excellence Award 2007 for her significant contributions to the interdisciplinary field of archaeometallurgy.

## LECTURES

**Dr. K. Kasturirangan, Director**  
*Space and Risk Management, Keynote Address, Decision and Risk Analysis Conference, University of Texas, Dallas, USA., May 22, 2007.*

*Challenges of Building Astrosat - India's First Dedicated Space Observatory, Second Raja Ramanna Memorial Lecture, Variable Energy Cyclotron Centre, Department of Atomic Energy, Kolkata, June 16, 2007.*

*Space - Perspective of a Developing Country, The Mythic Society, NRI Parents Association, Bangalore, June 23, 2007.*

*India in Space - Some Recent Excitements, National Institute of Immunology, New Delhi, June 28, 2007.*

*Management of Indian Space Programme in the Global Perspective, Field Marshal Sam Manekshaw Annual Lecture, Symbiosis Institute of Management Studies, Pune. July 2, 2007.*

*Indian Mission to Moon Chandrayaan-1*, G. T. Narayanan Memorial Lecture, 30th Annual Science Festival, The Bangalore Science Forum, Bangalore, July 14, 2007.

**Thirteenth Convocation Address** at National Institute of Industrial Engineering, Mumbai, July 21, 2007.

*Economic and Social Growth through Geo-Information Technology and Applications*, **Keynote Talk**, The Map Asia 2007, Symposium at Kuala Lumpur, Malaysia, August 14, 2007.

*Future Directions of Space*, **Highlight Lecture**, The 58th International Astronautical Congress (IAC 2007), Hyderabad, September 25, 2007.

**Inaugural Function Address** on India International Rubber Conference and Expo 2007, MLS University, Udaipur, November 1, 2007.

*Evolution of Space Sciences in India*, 73rd Annual Meeting, Indian Academy of Sciences, Thiruvananthapuram, November 2, 2007.

*The Emerging World Space Order – An Indian Perspective*, **Keynote Address**, Space Security Conference, Institute for Defence Studies and Analyses (IDSA), New Delhi, November 14, 2007.

**Convocation Address** at Motilal Nehru National Institute of Technology, Allahabad, November 16, 2007.

**Convocation Address** at University of Lucknow, Lucknow, November 17, 2007.

*India's Space Endeavour - Elements of an Innovative Management System*, **28th Vikram Sarabhai Memorial Lecture**, Ahmedabad Management Association, Ahmedabad, November 23, 2007.

*The Jewel of Ruia Awards Function on Forays into Space - Some Personal Reminiscences*, Ruia College Alumni Association, Shikshana Prasarak Mandali's Ramnarain Ruia College, Mumbai, December 8, 2007.

*High Resolution Remote Sensing and Thematic Applications*, **Chief Guest Address**, National Conference on High Resolution Remote Sensing and

Thematic Applications at Indian Society of Remote Sensing-NAMTO (National Atlas and Thematic Mapping Organization), Kolkata, December 18, 2007.

*ASTROSAT*, **Nineteenth Foundation Day Lecture**, Inter-University Centre for Astronomy and Astrophysics (IUCAA), Pune, December 29, 2007.

**Inaugural Address** at the 19th National and 8th ISHMT-ASME: Heat and Mass Transfer Conference, J.N.T.U College of Engineering, Hyderabad, January 3, 2008.

**Inaugural Talk** at the National Workshop for Regional Editors, Mahabharata Samshodhana Pratisthanam, Bangalore, January 5, 2008.

*India in the Space Age*, **Asia Centre Annual Lecture**, Asia Centre, Bangalore, January 10, 2008.

**Fifth Graduation Day Address** at the People's Education Society Institute of Technology (PESIT), Bangalore, January 19, 2008.

**Ninth Convocation Address** at Assam University, Silchar, January 29, 2008.

*Chandrayaan-1*, **Prof. D.S. Kothari Memorial Lecture**, India's Foray into Planetary Exploration, University of Delhi, Delhi, February 6, 2008.

*Astrosat and Chandrayaan-1: Some Evolutionary Considerations*, **Foundation Day Address**, Raja Ramanna Centre for Advanced Technology, Indore, February 19, 2008.

*Madhavrao Scindia – Personality and His Contribution to the Society*, **Keynote Address**, Madhav Institute of Technology and Science (MITS), Gwalior, March 10, 2008.

**Dr. B. K. Anitha**

*Gender and Philosophy*, Second Summer School on Philosophy for the Social Sciences and Humanities, organised by the Centre for Philosophy, NIAS, June 14, 2007.

*Gender Responsiveness in Development*, under the theme Global and Regional Development Issues for the Fredskorpset Preparatory Course for South- South Exchange Programme 2007 - 2008 Christ College, Bangalore, October 4, 2007.

*Learning Disabilities: Issues and Concerns*, a **Keynote Address** at the National Seminar on Learning Disabilities: Concept and Key Issues, Kannur University and Rotary Club of Kasargod, November 5, 2007.

*Gender, Education and Employment*, Eleventh NIAS Course for University and College Teachers, January 25, 2008.

**Prof. S. Chandrashekar**

*Chaired a Panel to discuss the Indo-US Nuclear Agreement*, Fifth NIAS-DST Programme on Multidisciplinary Perspectives on Science and Technology at NIAS, August 29, 2007.

*Determining Technology Priorities for India-An Approach*, Twenty-second NIAS Course for Senior Executives, January 10, 2008.

*Pakistan's Ballistic Missile Programme*, Eleventh NIAS Course for University and College Teachers, January 28, 2008.

**Dr. Rajesh Kasturirangan**

*Philosophy of Mind-I*, Second Summer School on Philosophy for the Social Sciences and Humanities, organised by the Centre for Philosophy, NIAS, June 5, 2007.

*Philosophy of Mind-II*, Second Summer School on Philosophy for the Social Sciences and Humanities, organised by the Centre for Philosophy, NIAS, June 6, 2007.

*Animal Bodies and Animal Minds*, Second Summer School on Philosophy for the Social Sciences and Humanities, organised by the Centre for Philosophy, NIAS (with Prof. Anindya Sinha), June 13, 2007.

*Grounding Knowledge in the World*, International Seminar on Ego, Embodiment and the Sensory-Motor System, NIAS, September 4, 2007.

*Indian Philosophical Traditions and Contemporary Thought*, Workshop for Eleventh NIAS Course for University and College Teachers, January 22, 2008.

**Dr. Sangeetha Menon**

*The Transpersonal Psychology of the Gita* (Lecture Series), The Oxford Centre for Hindu Studies, United Kingdom, May 2007.

*Beyond Love and Love Beyond: Hindu and Western Ideas of Love*, Shivadasani Seminar, The Oxford Centre for Hindu Studies, United Kingdom, May 3, 2007.

*The Dance of Emotions: Faces, Gestures, and Movements*, Shivadasani Lecture, The Oxford Centre for Hindu Studies, United Kingdom, May 7, 2007.

*The Concept of Hindu Philosophy*, Shivadasani Seminar, The Oxford Centre for Hindu Studies, United Kingdom, May 14, 2007.

*Neurons, Experience, and Being: A Discussion on Consciousness*, Shivadasani Lecture, The Oxford Centre for Hindu Studies, United Kingdom, May 25, 2007.

*First Four Chapters of the Bhagavad Gita* (Lecture Series), Oxford. Organised by Dr. Shirley Du Boulay (Former BBC correspondent and Program Director for Religious Studies) May - June 2007 (Trinity Term).

*Mind and Consciousness in the Bhagavad Gita*, Bharatiya Vidya Bhavan, London, June 9, 2007.

*Samvada Tradition in Indian Philosophy*, Foundation Course, NIAS, September 28, 2007.

*Challenges in Brain and Consciousness Studies*, The Kyoto Imperial University, Kyoto, Japan, October 16, 2007.

*Brain and Consciousness: Challenges in Science Spirituality Dialogues*, The Nanzan Institute for Religion and Culture, Nanzan University, Japan, October 18, 2007.

*Gestures, Expressions and the Poise: Symbolism in Indian Arts and Dance*, the Institute for Anthropology, Nanzan University, Japan, October 19, 2007.

**Prof. N. Shantha Mohan**

*Activist Based Social Science*, Second Summer School on Philosophy for the Social Sciences and Humanities, organised by the Centre for Philosophy, NIAS, June 18, 2007.

*Identification of Parameters for Monitoring State Action*, Singamma Foundation, Bangalore, January 22, 2008.

*CEDAW: Application for Ensuring State Obligations*, Eleventh NIAS Course for University and College Teachers, January 25, 2008.

*Women, Employment and Human Rights*, Key Note Address at the First Biannual National Seminar of WITS, Impetus, Bangalore, February 28, 2008.

**Prof. Rajaram Nagappa**

*Bahyaakasha Bhadrata* (Talk in Kannada), the Laboratory for Electro Optics Systems, ISRO, Bangalore on the occasion of the Laboratory's Kannada Rajyotsava Day Celebration, November 27, 2007.

*Space and Security*, Eleventh NIAS Course for University and College Teachers, January 17, 2008.

*Indo-US Space Cooperation*, Second Roundtable on Indo-US Perspective in Science and Technology, NIAS, February 16, 2008.

*Indian Space Programme - The Early Years*, The Nightingale Elders Enrichment Centre, Bangalore, February 22, 2008.

**Dr. M. G. Narasimhan**

*Evolution*, Second Summer School on Philosophy for the Social Sciences and Humanities, organised by the Centre for Philosophy, NIAS, June 13, 2007.

*Philosophy of Biology* (Three Lectures), Jadavpur University, Kolkata, November 12 to 21, 2007.

*Should Philosophy be Just an Academic Discipline?*, Jadavpur University, Kolkata, November 19, 2007.

*The Head and the Hand: On Thought Experiments and Real Experiments in Sciences*, Eleventh NIAS Course for University and College Teachers, February 4, 2008.

**Prof. Narendar Pani**

*India's Economic Performance*, Xavier Institute of Management Education, Bangalore, June 8, 2007.

*Philosophy of Economics*, Second Summer School on Philosophy for the Social Sciences and Humanities, organised by the Centre for Philosophy, NIAS, June 14, 2007.

*Exploring Rawls, Sen and Gandhi*, Second Summer School on Philosophy for the Social Sciences and Humanities, organised by the Centre for Philosophy, NIAS, June 15, 2007.

*Rise of WTO*, Fifth NIAS-DST Programme on Multidisciplinary Perspectives on Science and Technology, August 20, 2007.

*India's Economic Reform*, to a group of 30 High Court Judges from all over India at the National Judicial Academy in Bhopal, September 21, 2007.

*Structural Changes in the Indian Economy*, Eleventh NIAS Course for University and College Teachers, February 1, 2008.

*Indian Economy and Gandhian Thought*, Fireflies Intercultural Centre, Bangalore, February 13, 2008.

*Social, Economic and Cultural Basis of India's Knowledge Industry*, for Bangalore Knowledge Society at Infosys Technologies Limited, February 20, 2008.

**Dr. Sindhu Radhakrishna**

*Wildlife Conservation in India - Paradigms and Prospects: A Debate*, Eleventh NIAS Course for University and College Teachers (with Prof. Anindya Sinha and Dr. M. D. Madhusudan, Nature Conservation Foundation, Mysore), January 18, 2008.

**Prof. K. Ramachandra**

*Theory of Numbers* (Three Lectures) at NIAS, January 14, 21 and 28, 2008.

**Prof. S. Ranganathan**

*Dimensions of Nanotechnology*, NIAS, April 11, 2007.

*Materials and Civilisation*, Harbin Institute of Technology, China, July 2007.

*Impact of Globalisation on Materials Research*, Harbin Institute of Technology, Harbin, China, July 2007.

*Impact of Globalisation on Materials Research*, Dalian University of Technology, Dalian, China, July 2007.

*Impact of Globalisation*, MEPCO Schlenk Engineering College, Virudhunagar, August 30, 2007.

*Globalisation of Materials Research*, CSIR Foundation Day Lecture, National Institute for Interdisciplinary Science and Technology, Thiruvananthapuram, September 26, 2007.

*Materials and Civilisation*, Thiruvananthapuram Chapter of the Indian Institute of Metals, Thiruvananthapuram, September 26, 2007.

*Art, Science and Technology: An Eternal Golden Braid*, Prof. Daya Swarup Memorial Lecture, NMD, Mumbai, November 14, 2007.

#### **Prof. S. Balachandra Rao**

*Indian Astronomical Procedures* (Four Lectures), Workshop on Indian Astronomy, SDM College, Ujire, Dakshina Kannada, October 24 and 25, 2007.

*Classical Indian Mathematics*, Residential PU College, Taralabalu Mutt, Sirigere, December 19, 2007.

*Classical Indian Astronomy*, Bapuji PU Science College, Davanagere, December 20, 2007.

*Eclipses, Transits and Occultations in Indian Astronomy*, Eleventh NIAS Course for University and College Teachers, January 30, 2008.

*Indian Scientists, Science Day* at Thiagarajar College of Engineering, Madurai, February 29, 2008.

*Development of Classical Indian Astronomy*, Golden Jubilee PG Courses, The Madura College (Autonomous), Madurai, February 29, 2008.

#### **Dr. Padma M. Sarangapani**

*IBCD-Experiences and Reflections and Closing Remarks* of the Seminar at the Seminar on Teacher Development, organised by Aga Khan Foundation, Hyderabad (with Mr. K. Shivakumar), May 3 and 4, 2007.

*Philosophy and Education*, Second Summer School on Philosophy for the Social Sciences and Humanities, organised by the Centre for Philosophy, NIAS, June 18, 2007.

*The NCF-2005 - In-service Course for Post-Graduate Teachers - Chemistry* at Kendriya Vidyalaya, IISc Campus, Bangalore, June 19, 2007.

*Role of Resource Institutions in the Education System*

to MA Education (Elementary) Students, Tata Institute of Social Sciences, Mumbai, November 14, 2007.

*Systemic Approaches to Improving Government Schools* at Plenary Session of the Learning Network Conference held at Deenabandhu School, Chamarajanagar, Karnataka, July 23, 2007.

#### **Prof. Sundar Sarukkai**

*Reading and Writing*, Second Summer School on Philosophy for the Social Sciences and Humanities, organised by the Centre for Philosophy, NIAS, June 4, 2007.

*Reason*, Second Summer School on Philosophy for the Social Sciences and Humanities, organised by the Centre for Philosophy, NIAS, June 5, 2007.

*Philosophy of Mathematics*, Second Summer School on Philosophy for the Social Sciences and Humanities, organised by the Centre for Philosophy, NIAS, June 12, 2007.

*Imagination*, Second Summer School on Philosophy for the Social Sciences and Humanities, organised by the Centre for Philosophy, NIAS, June 20, 2007.

*Science and Translation*, National Meet on Fostering Scientific Temper: Popular Science Writing in India, National Book Trust, August 18, 2007.

*Philosophy of Symmetry*, The American Philosophy Association Annual Meet, Baltimore, December 28, 2007.

*Laws and Incommensurability*, International Conference on Incommensurability, Department of Philosophy, University of Hyderabad, January 19, 2008.

*Indian Philosophical Traditions and Contemporary Thought*, Workshop for Eleventh NIAS Course for University and College Teachers, January 22, 2008.

*Social Sciences and the Politics of Writing*, School of Social Sciences, Jawaharlal Nehru University, New Delhi, March 4, 2008.

*Conceptualising Untouchability*, National Seminar on Studying Ambedkar: Issues in Methodology, Jawaharlal Nehru University, New Delhi, March 7, 2008.

Three lectures as Visiting Professor, Department of Linguistics, Delhi University, March 10 to 12, 2008.  
Three lectures at Indian Statistical Institute, Kolkata, March 19 and 20, 2008.

**Prof. S. Settar**

*The Other of History*, Second Summer School on Philosophy for the Social Sciences and Humanities, organised by the Centre for Philosophy, NIAS, June 22, 2007.

**Prof. P. K. Shetty**

*Environmental Stewardship*, Rotary Club, R. T. Nagar, Bangalore, September 25, 2007.

*Health and Environment*, The Health Awareness Campaign organised by a Group of Medical and Health Professionals at Jalahalli, Bangalore, October 29, 2007.

*Global Warming and Its Impacts on Agriculture*, Adarsha Educational Complex organised by Thoreau Foundation, R.T. Nagar, Bangalore, December 8, 2007.

**Prof. Anindya Sinha**

*Almost Minds: Social and Mechanical Knowledge in Wild Bonnet Macaques*, Centre for Cognitive Sciences, Department of Philosophy, Jadavpur University, Kolkata, April 16, 2007.

*Minding Others' Business! Tactical Deception and Intentionality in Wild Bonnet Macaques*, Centre for Cognitive Sciences, Department of Philosophy, Jadavpur University, Kolkata, April 17, 2007.

*A Cultured Mind? Phenotypic Flexibility, Behavioural Traditions and Distributed Cognition in Wild Bonnet Macaques*, Centre for Cognitive Sciences, Department of Philosophy, Jadavpur University, Kolkata, April 19, 2007.

*How Does the Bonnet Macaque See the World? Understanding the Mind of Another Species*, Institute of Mathematical Sciences, Chennai, April 25, 2007.

*What Makes a Species a Species? Insights from the Newly-Discovered Arunachal Macaque*, Institute of Mathematical Sciences, Chennai, April 27, 2007.

*Arunachal Macaque Tales: Morphology, Genetics, Evolution*, Bangalore Association for Science Education, Bangalore, May 26, 2007.

*Of Monkeys, Men and Morals: Studying Primates in India*, Selection Camp for the Indian Team to the International Biology Olympiad, Homi Bhabha Centre for Science Education, Mumbai, May 31, 2007.

*Animal Bodies and Animal Minds*, Summer Course on Philosophy for the Social Sciences and Humanities, organised by the Centre for Philosophy, NIAS (with Dr. Rajesh Kasturirangan), June 13, 2007.

*When is a Species a Species? Insights from the Arunachal Macaque, a New Primate from Northeastern India*, Fifth NIAS-DST Programme on Multidisciplinary Perspectives on Science and Technology, NIAS, August 30, 2007.

*Why and How Do We Study Monkeys?*, Rishi Valley School, Madanapalle, August 30, 2007.

*Of Monkeys and Men: Studying Primates in India*, Eleventh NIAS Course for University and College Teachers, January 18, 2008.

*Wildlife Conservation in India - Paradigms and Prospects: A Debate*, Eleventh NIAS Course for University and College Teachers (with Dr. Sindhu Radhakrishna and Dr. M. D. Madhusudan, Nature Conservation Foundation, Mysore), January 18, 2008.

*When is a Species a Species? The Tale of the Arunachal Macaque, a New Primate from Northeastern India*, Primate Research Institute, Kyoto University, Inuyama, Japan, February 19, 2008.

*Cultured Minds? Phenotypic Flexibility*, Behavioural Traditions and Distributed Cognition in Bonnet Macaques, Primate Research Institute, Kyoto University, Inuyama, Japan, February 21, 2008.

**Prof. B. V. Sreekantan**

*Scientific and Philosophical Studies on Consciousness*, Second Summer School on Philosophy for the Social Sciences and Humanities, organised by the Centre for Philosophy, NIAS, June 11, 2007.

*Science and Consciousness*, Jayanagar Study Centre, R. V. Institute of Management, Jayanagar, Bangalore, October 27, 2007.

*The Different Phases of Cosmic Ray Research in the 20th Century: Their Role in High Energy Physics*

*and Astrophysics*, D. M. Bose Memorial Lecture, Bose Institute, Kolkata, November 26, 2007.

*Human Affairs in the Era of Rapidly Advancing Science and Technology*, V. K. Krishna Menon Memorial Lecture, Bodhananda Research Foundation for Management and Leadership Studies, Thiruvananthapuram, March 1, 2008.

**Dr. Sharada Srinivasan**

*Finger-printing of Bronzes*, Museum Endowment Lecture, International Women's Association, Chennai, January 31, 2008.

**Dr. Carol Upadhy**

*Reinventing India in the New Global Economy*, Talk and Film Screening, for Eleventh NIAS Course for University and College Teachers, January 29, 2008.

*Sociologies of India: A Historical and Theoretical Critique*, Second Summer School on Philosophy for the Social Sciences and Humanities, organised by the Centre for Philosophy, NIAS, June 15, 2007.

**Prof. A. R. Vasavi**

*Youth and the New Publics and Institutions*, University of Mysore, April 14, 2007.

*Review of EFA: Management Structures*, NUEPA, New Delhi, May 15, 2007.

*Towards Little Sociologies of India*, Second Summer School on Philosophy for the Social Sciences and Humanities, organised by the Centre for Philosophy, NIAS, June 7, 2007.

*Reflections from the DQEP* (with team members), Institute for Social and Economic Change, Bangalore, June 7, 2007.

*Elementary Education, Projects and the State*, Aga Khan Meet on Elementary Education, New Delhi, June 28, 2007.

*Introduction and Note on Schools and Culture*, NIAS, November 28, 2007.

*Women and Land Rights*, organised by the IGSS at UTC, Bangalore, January 21, 2008.

*Theory and Practice of Elementary Education: Experiences from the DQEP*, Eleventh NIAS Course

for University and College Teachers, January 28, 2008.

*Towards a Practice and Theory of Elementary Education*, Eleventh NIAS Course for University and College Teachers, January 30, 2008.

*Agrarian Crisis and the State of Rural India*, Firefiles, Bangalore, February 12, 2008.

*Concepts and Realities of Community in Elementary Education*, NUEPA, New Delhi, March 17, 2008.

## PAPERS PRESENTED IN CONFERENCES

**Prof. Dilip R. Ahuja**

Panel Discussant on the session on *Energy at the Dragon and the Elephant: Understanding the Development of Innovation Capacity in China and India*, Board on Science, Technology, and Economic Policy, The National Academies, Washington, DC, USA, September 25, 2007.

The IAC Study on *Sustainable Energy Systems: Relevance to Asia and the Pacific*, Symposium on Priority Issues in the Field of Energy in Asia and the Pacific, International Council on Science (ICSU), Chiang Mai, Thailand, November 21, 2007.

*Framework for a New Global Agreement on Climate Change*, Symposium on Climate Change: Science and Solutions, National Commission on Science and the Environment, Washington, DC, USA, January 18, 2008.

**Dr. B. K. Anitha**

*Academic Leadership and Management*, National Seminar on Leading Academic: Dimensions of Educational Leadership held at Christ College, Bangalore, April 26, 2007.

*Diversity Integral to Indian Science and Technology*, under the Sub Theme on Gender Science and Technology, XII National Conference on Feminism, Education and the Transformation of Knowledges: Processes and Institutions, Lucknow Indian Association of Women Studies, February 9, 2008.

**Dr. Sangeetha Menon**

*Body, Embodiment and Enworldment*, International Conference on Body, Embodiment and Sensory-Motor System, NIAS, September 5, 2007.

*Pace in Space: Theatrical, Gestural and Pictorial Space in Indian Arts*, International Conference on The Bangalore Space and Culture International Symposium organised by Leonardo Paris, Arts Catalyst Londoan, Srshti Bangalore, NIAS, September 31, 2007.

*Brain and Being Centers of Consciousness*, International Conference on Consciousness, Brain Science, and Religion: Some Asian Perspectives, Fu Jen Catholic University, Taiwan, October 13, 2007.

*Nectar of Love and its Flow in Consciousness, the National Conference on Sacred Love: Bhakti in Indian Tadtions* organised by Tirumala Tirupati Devasthanams and Indian Council of Philosophical Research, Sri Venkateshwara University, Tirupati, December 9, 2007.

*Epistemology of Experience: Challenges for Consciousness and Neuropsychiatric Studies*, National Conference on Indian Psychology: Theories and Models, organised by Indian Council of Philosophical Research at Swami Vivekananda Yoga Anusandhana Samsthana, Bangalore, December 27, 2007.

*Persistent Puzzles of Consciousness: What is It? Where is It?*, International Conference on Consciousness: Recent Advances, Ramakrishna Mission Institute of Culture, Calcutta, January 19, 2008.

**Prof. N. Shantha Mohan**

*Application of CEDAW for Enhancing Women's Political Participation in India*. Conference on Using the International Human Rights Agreements as a Tool for Redressing Violations of Women's Human Rights organised by Rockefeller Foundation and IWRAW - Asia Pacific in Bellagio, Italy, November 6, 2007.

**Prof. Narendar Pani**

*Boundaries of Trans-boundary Water Sharing at Dialogue to Review and Evolve Parameters for Interstate Transboundary Water Sharing in India*, NIAS, June 26 and 27, 2007.

*Financial and Services Integration - Securing Systemic Stability; Including the Regional Financial Integration Cooperation under the East Asia Summit*, Seminar on The Asian Century: Driving Global Trends organised by the Australian High Commission and The Hindu at Chennai, September 28, 2007.

*The Future of Green Revolution Agriculture*, Conference on Food Sovereignty: Can We Make It a Reality for India organised by Green Foundation and Society for Voluntary Action Revitalisation and Justice, Bangalore, November 2, 2007.

*College Industry Interaction*, Seminar at St. Joseph's College, Bangalore, November 9, 2007.

*Development Compulsions of Indian Technology*, Roundtable on Indo-US Perspectives in Science and Technology, NIAS, February 17, 2008.

*Globalisation and Cities: Towards a Conceptual Framework*, Seminar on Globalisation and Management of Vulnerabilities at Institute for Social and Economic Change, Bangalore, March 26, 2008.

**Dr. Sindhu Radhakrishna**

*Behavioural Ecology of the Lorises of India - What Do We Know?* Prosimians 2007: International Congress, Ithala, South Africa, July 15, 2007.

**Prof. S. Ranganathan**

*Metallurgy: Inspiration from Space and Culture*, Space and Culture Symposium, NIAS, September 30, 2007.

*Materials Science and Engineering Education: Indian Scenario*, The Minerals, Metals, Materials Society, USA New Orleans, March 2008.

**Prof. S. Balachandra Rao**

*Lunar Eclipses and Occultations*, National Seminar on the Scientific Aspects of Chandrayaana-1 and Ancient Indian Concepts on Moon, Dayanada Sagar Institutions, Bangalore, November 29, 2007.

**Prof. Sundar Sarukkai**

*What Does it Mean to be Embodied?*, International Seminar on Ego and Embodiment, NIAS, September 4, 2007.

*The Aesthetics of Space*, International Symposium on Space and Culture, NIAS, September 30, 2007.

*Reading Newton's Principia*, National Meet on Literature as Knowledge System 2, Department of Comparative Literature, Jadavpur University, December 7, 2007.

*Indian Philosophical Traditions and Contemporary Thought*, Workshop for Eleventh NIAS Course for University and College Teachers, January 22, 2008.

*Indian Logic and Scientific Methodology*, Symposium on The History of Classical Indian Sciences, Poornaprajna Institute of Scientific Research, Bangalore, February 28, 2008.

*Reinterpreting Indian Logic*, National Seminar on The Developments in Indian Philosophy from Eighteenth Century Onwards, Department of Philosophy, University of Madras, March 14, 2008.

**Prof. Anindya Sinha**

*Social Cognition in Primates: From Mental Representation to Distributed Cognition*, **Plenary Lecture**, Annual Conference of the Indian Ethological Society, Bangalore, April 11, 2007.

*Of Monkeys and Men: Human-Macaque Conflict in Northern India*, National Strategy Development Workshop to Address Human Wildlife Conflicts in Bhutan, Paro, Bhutan, December 6, 2007.

*A Situational Analysis of Human-Primate Conflict in Bhutan*, National Strategy Development Workshop to Address Human Wildlife Conflicts in Bhutan, Paro, Bhutan, December 8, 2007.

*Goals, Objectives and Strategies to Address Human-Primate Conflict in Bhutan*, National Strategy Development Workshop to Address Human Wildlife Conflicts in Bhutan, Paro, Bhutan, December 9, 2007.

*Education and Awareness Programme for Wildlife Conservation and Human-Wildlife Conflict*, National Strategy Development Workshop to Address Human Wildlife Conflicts in Bhutan, Paro, Bhutan, December 9, 2007.

*The Primate Programme in NIAS and NCF: Progress and Prospects*, Annual Meeting of the Nature Conservation Foundation, Mysore, February 7, 2008.

*More Dead than Alive: Morphology and Phylogenetics of the Central Arunachal Pradesh Macaques*, Annual Meeting of the Nature Conservation Foundation, Mysore, February 7, 2008.

*Primate Worlds: Demography, Ecology, Behaviour and Conservation of Indian Macaques*, International Symposium on the Evolution and Diversity of Macaques: Research Progress and Prospects, Primate Research Institute, Kyoto University, Inuyama, Japan, February 16, 2008.

**Dr. Sharada Srinivasan**

*Dholavira, Insights from Metal Analysis*, 19th International Conference on South Asian Archaeology, Ravenna, Italy, July 3, 2007.

*The Chola Bronze Nataraja Integrates Art, Science and Dance*, World Dance Congress, Dora Stratou Theatre, Athens, Greece, September 9, 2007.

*Cosmic Dance of Siva: Confluence of Astronomy, Metallurgy and Dance*, International Academy of Astronautics Meeting, International Astronautical Congress, Hyderabad, September 23, 2007.

*Metallurgy and Technology in Indian Antiquity*, Symposium on Classical Indian Sciences, Poornaprajna Institute of Scientific Research and NIAS, February 26, 2008.

**Dr. Carol Upadhya**

*India's 'New Middle Classes', Consumption, and the Globalising City*. Workshop on Globalizing Lifestyles Between McDonaldization and Sustainability Perspectives: The Case of the New Middle Classes, University of Bremen, Germany, October 4 and 5, 2007.

*Labour in the Indian Software Outsourcing Industry: Flexibilisation, Control, and Regulation*. IILS - ICSSR - IHD International Workshop on Global Production Networks and Decent Work: Recent Experience in India and Global Trends, Bangalore, November 18 to 20, 2007.

Panel Presentation on *Absentia* in the Celebrating 50 years of Contributions to Indian Sociology: Symposium on Indian Sociology, organised by the Institute of Economic Growth, Delhi, December 6, 2007.

Round Table Discussion on Science and Technology Studies in India in the *Workshop on 'Technology, Governance and Citizenship*, Indian Institute of Management Bangalore, December 12 to 14, 2007.

Organisational meeting on Understanding India's Urban Future, Centre for Policy Research, New Delhi, January 31, 2008.

**Prof. Prabhakar G. Vaidya**

*Stochastic Switching of Deterministic Chaotic Systems on a Finite Precision Computer: Implications to Chaos and Randomness*, International Conference on Stochastic Applications, Indian Institute of Science, Bangalore (with Mr. Nithin Nagaraj and Mr. Mahesh C. Shastry), July 19, 2007.

*Recovering Non-linearity from Chaotic Data in the Presence of Noise*. International Conference on Stochastic Processes and Applications, IISc. Mathematics Initiative, Indian Institute of Science, Bangalore (with Mr. Nithin Nagaraj and Ms. P. S. Sajini Anand), July 19, 2007.

*Switching of Non-Linear Dynamical Systems and its Effect on Round-Off Induced Periodicity with Applications to Pseudo-Random Number Generation*, Non-linear Dynamics and Chaos: Advances and Perspectives, Aberdeen, UK (with Mr. Nithin Nagaraj and Mr. Mahesh C. Shastry), September 17, 2007.

*Embedding in Higher Dimensions Causes Ambiguity for the Problem of Determining Equations from Data*, Conference on Non-linear Dynamics and Chaos: Advances and Perspective, University of Aberdeen (with Ms. Swarnali Majumder), September 17, 2007.

*Separating a Mixture of a Large Number of Chaotic Signals*, Non-linear Dynamics and Chaos: Advances and Perspectives, Aberdeen, UK, September 19, 2007.

*A Dynamical Systems Approach to Source Compression for Constrained Sources*, Non-linear Dynamics and Chaos: Advances and Perspectives, Aberdeen, UK (with Mr. Nithin Nagaraj and Mr. Rajesh Sundaresan), September 21, 2007.

*A Non-linear Dynamical Systems Approach to Source Coding*, National Conference on Nonlinear Systems and Dynamics, Physical Research Laboratory, Ahmedabad (with Mr. Nithin Nagaraj), January 3, 2008.

*A Non-linear Generalization of Singular Value Decomposition and its Application to Cryptanalysis*, International Instructional Workshop/conference on Applied Multi-variate data Analysis with Applications

to Life, Social and Environmental Science, Hyderabad (with Mr. Nithin Nagaraj and Ms. P. S. Sajini Anand), January 18, 2008.

*Coding and Decoding Programs Using Chaotic Dynamical Systems*, National Conference on Nonlinear Systems and Dynamics, Physical Research Laboratory, Ahmedabad (with Mr Pavan Tallapragada and Mr. Nithin Nagaraj), January 4, 2008.

*Critical Evaluation of a Method for Non-linear System Identification*, National Conference on Non-linear Systems and Dynamics, Physical Research Laboratory, Ahmedabd (with Ms. Swarnali Majumder), January 4, 2008.

*A Non-linear Generalization of Singular Value Decomposition and its Application to Cryptanalysis*, International Instructional Workshop / Conference on Applied Multi-variate data Analysis with Applications to Life, Social and Environmental Science, Hyderabad (with Mr. Nithin Nagaraj and Ms. P. S. Sajini Anand), January 18, 2008.

*Joint Source Coding, Channel Coding, and Encryption Using Nonlinear Dynamical Systems Approach*, International Conference on Recent Developments in Nonlinear Dynamics, School of Physics, Bharathidasan University, Trichy (with Mr. Nithin Nagaraj), February 16, 2008.

*What is So Worrisome About a Perfectly Uniform Heartbeat?* International Biomedical Modeling School and Workshop, National Centre for Biological Sciences, Bangalore, March 2, 2008.

**Prof. A. R. Vasavi**

*The Life and Culture of Government Schools*, Final DQEP Seminar, NIAS, August 3, 2007.

*The State of Rural India*, Seminar on India at 60s, at the Institute for Social and Economic Change, Bangalore, August 13, 2007.

*The Contexts of Agrarian Suicides*, National Meet on Liberalisation and the Suicides by Agriculturists, Lal Bahadur Shastri Academy for Administration, Mussorie, November 23, 2007.

*Equity and Excellence in Elementary Education*, INSA Conference on Science and Society, New Delhi, March 14, 2008.

## CONFERENCES ATTENDED

**Prof. Dilip R. Ahuja**

*First Meeting of the Global Leadership for Climate Action*, Madrid, Spain, May 22 and 23, 2007.

*High-level Expert Round Table on a Framework for International Agreement on Climate Change*, Washington, DC, USA, July 19 and 20, 2007.

*The Second Meeting of the Global Leadership for Climate Action*, Berlin, Germany, September 7 and 8, 2007.

*World Economic Forum, Workshop on Climate Change: The Gleneagles Dialogue Industry Partnership Project*, Washington, DC, USA, November 8, 2007.

*The Thirteenth Conference of the Parties to the United Nations Framework Convention on Climate Change*, Bali, Indonesia, December 3 to 14, 2007.

*The Washington International Renewable Energy Ministerial Conference*, Washington, DC, USA, March 4 to 6, 2008.

**Dr. B. K. Anitha**

*National Workshop on Establishing and Strengthening Zonal Water Partnerships in India*, NIAS, May 29 and 30, 2007.

*National Dialogue to Review and Evolve Parameters and Guidelines for Interstate Transboundary Water Sharing in India*, NIAS, June 26 and 27, 2007.

*National Consultation on Towards Engaged Social Sciences* organised by NIAS, October 29 and 30, 2007.

*Curtain Raiser for Emerging Directions in Global Education*, November 27 and 28, 2007.

*Zonal Water Partnership: Vision and Action*, NIAS, December 18, 2007.

*National Dialogue to Arrive at Non-Negotiable Parameters for Interstate Transboundary Water Sharing in India*, NIAS, December 27, 2007.

*International Conference on Emerging Directions in Global Education (EDGE)*, organised by Manipal

University, NIAS, U21 Global, College Board USA, IIE, Common Wealth Business Council, IGNOU, FICCI and IIM B held at India Habitat Centre, New Delhi, March 3 to 8, 2008.

**Prof. S. Chandrashekar**

*Conference on Security and Cooperation in South Asia: A Global Perspective - Berlin*, Germany, October 8 to 10, 2007.

**Prof. N. Shantha Mohan**

*National Workshop on Establishing and Strengthening Zonal Water Partnerships in India* at NIAS, May 29 and 30, 2007.

*Multi Stakeholder National Dialogue to Evolve Parameters and Guidelines for Inter-State Transboundary Water Conflict Resolution in India* at NIAS, June 26 and 27, 2007.

*Dialogue to Evolve Parameters and Guidelines for Interstate Transboundary Water Sharing in India*, jointly organised by NIAS and Centre for Cauvery Delta Development Studies, Thanjavur, November 19 and 20, 2007.

*Zonal Water Partnerships: Vision and Action* at NIAS, December 18, 2007.

*National Dialogue to Evolve Parameters for Transboundary Interstate Water Sharing*, NIAS, December 27, 2007.

**Prof. Rajaram Nagappa**

*International Conference on Space Security, Institute for Defence Studies and Analysis*, New Delhi, November 13 and 14, 2007.

*Sixth International Conference on High Energy Materials and Exhibit*, Tagore Engineering College, Chennai, December 13 to 15, 2007.

*Fourth International Conference and Exhibit on Reinforced Plastics*, Bombay Convention Centre, Mumbai, February 7 to 9, 2008.

**Prof. Narendar Pani**

*National Consultation on Towards Engaged Social Sciences* organised by NIAS, October 29 and 30, 2007.

**Prof. N. Ramani**  
*International Conference on Space Security*, Institute for Defence Studies and Analysis, New Delhi, November 13 and 14, 2007.

**Dr. Padma M. Sarangapani**  
*Consultation on DIETs: Potentials and Possibilities*, organised by School of Social Sciences, NIAS, October 4 and 5, 2007.

**Prof. Anindya Sinha**  
*Selection Camp for the Indian Team to the International Biology Olympiad*, Homi Bhabha Centre for Science Education, Mumbai, May 30 to June 8, 2007.

*National Strategy Development Workshop to Address Human Wildlife Conflicts in Bhutan*, Paro, Bhutan, December 5 to 11, 2007.

*International Symposium on the Evolution and Diversity of Macaques: Research Progress and Prospects*, Primate Research Institute, Kyoto University, Inuyama, Japan, February 16 to 18, 2008.

**Dr. Sharada Srinivasan**  
*UNESCO World Dance Congress*, Dora Stratou Theatre, Athens, Greece, September 5 to 12, 2007.

*Inaugural Invocation Performance* at Bangalore Space and Culture Symposium, NIAS, September 30, 2007.

*Taking Vijayanagaras Past into the Future*, Jindal Steel, Hampi Foundation, Jindal Steel and Global Heritage, International Seminar, January 19 and 20, 2008.

*Painting Narratives: Mural Painting Traditions in the 13th – 19th Centuries*, Chennai and Kanchipuram, Tamil Nadu, India, Organised by the Madras Craft Foundation and Dakshina Chitra, Dr. David Shulman, Hebrew University, Israel, and in association with INTACH Indian Council of Conservation Institutes, Lucknow, January 23 to 27, 2008.

**Dr. Carol Upadhya**  
*National Consultation on Towards Engaged Social Sciences* organised by NIAS, October 29 and 30, 2007.

Organisational Meeting on *Understanding India's Urban Future*, Centre for Policy Research, New Delhi, January 31, 2008.

Acted as resource person in the Dissertation Workshop, *Social and Political Transformations in Contemporary India*, Institute of Economic Growth, New Delhi, March 27 to 29, 2008.

**Prof. A. R. Vasavi**  
*National Consultation on Towards Engaged Social Sciences* organised by NIAS, October 29 and 30, 2007.

*Consultation on Land Use Policy for Karnataka*, organised by ATREE, Bangalore, February 20, 2008.

*Consultation on Schooling in Tribal Areas*, Firefiles, Bangalore, March 22, 2008.

### WEDNESDAY DISCUSSION MEETINGS

**Dr. B. K. Anitha**  
*Learning Disabilities – Professional Challenge for the Indian School Teacher*, March 26, 2008.

**Ms. Hamsa Kalyani**  
*Institutional Repository @ NIAS*, July 25, 2007.

**Prof. Malavika Kapur**  
*Need for a Paradigm Shift in the Study of Psychology*, October 17, 2007.

**Dr. Rajesh Kasturirangan**  
*Some Problems of Reference*, December 5, 2007.

**Prof. S. S. Meenakshisundaram**  
*Rural Employment Guarantee: Is It a Political Slogan or Can It Work?*, August 1, 2007.

**Dr. Sangeetha Menon**  
*Body, Mind and Mystical Experiences*, December 19, 2007.

**Prof. Rajaram Nagappa**  
*Assessment of Pakistan's Missile Manufacturing Capability*, September 17, 2007.

**Prof. Narendar Pani**  
*Resource Cities and Globalisation: Lessons from Bangalore*, May 16, 2007.

*Non-Agrarian Village Economies: Second Phase of the Kerala Model*, February 6, 2008 (with Mr. K. Jafar).

**Prof. K. Ramachandra**

*Recent Great Results of Theory of Numbers*, July 11, 2007.

**Prof. S. Ranganathan**

*Professor Cyril Stanley Smith: Renaissance Metallurgist of the Twentieth Century*, April 11, 2007.

**Dr. Padma M. Sarangapani**

*The What and Why of School Vouchers*, May 2, 2007.

**Prof. Sundar Sarukkai**

*I Have Nothing to Say*, May 9, 2007.

**Prof. S. Settar, Shri Suresh Heblikar, Prof. Sundar Sarukkai and Prof. Narendar Pani**  
*'Multilogue' on the Ramasethu A Bridge: Many Aspect*, September 27, 2007.

**Dr. Carol Upadhya**

*Law, Custom, Community and Practice: Disentangling Land Rights in Jharkhand*, April 4, 2007.



Carnatic Vocal Recital by Ms. Sudha Ragunathan during the *Senior Executives Course*

## BOOKS

**Kapur, Malavika** (2007) *Learning from Children: What to Teach Them*. New Delhi: Sage.

**Menon, Sangeetha** (2007) *The Beyond Experience: Consciousness in the Bhagavad Gita*. New Delhi: BlueJay Books.

**Rao, S. Balachandra** (2007) *Vedanga Jyotisha (Lagadha's Astronomy)-Kannada translation of the first Indian Astronomical Text in Sanskrit*. Bangalore: Bhavan's Gandhi Centre of Science and Human Values.

**Rao, S. Balachandra** (March 2008) *Indian Astronomy: A Primer*. Bangalore: Bhavan's Gandhi Centre of Science and Human Values.

**Settar, S.** (2007) *Sangam Tamilagam Mattu Kannada Nadu-Nudi: [The Sangam Tamilagam and Kannada Land and Language: Reflections on the Early Dravidian Relations]*. Bangalore: Abhinav Publications.

**Shetty, P. K., Parida, Ajay and Swaminathan, M. S.** (eds.) (2008) *Biosecurity*. Bangalore: National Institute of Advanced Studies, Bangalore; Chennai: M. S. Swaminathan Research Foundation.

**Upadhyaya, Carol and Vasavi, A. R.** (eds.) (2008) *In an Outpost of the Global Economy: Work and Workers in India's Information Technology Industry*. New Delhi: Routledge.

## ARTICLES

**Halsnaes, K., Shukla, P., Ahuja, D. R. et al** (2007) Framing Issues In: *Climate Change 2007: Mitigation*. Contribution of Working Group III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change [B. Metz et. al. (eds.)]. Cambridge, U.K. and New York, U.S.A.: Cambridge University Press. pp 117-167.

**Mohamed El-Ashry and Ahuja, D. R.** (2008) A Global Response to Climate Change *Environmental Policy and Law* 38(1-2): 20-25.

**Anitha, B. K., Bhusan Patwardhan, Sudha Raju and Jagdish Patankar.** (2008) *India Education Vision*

# Publications



Document *Emerging Directions in Global Education*, EDGE Secretariat, Bangalore. ([www.edge2008.in](http://www.edge2008.in))

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### A Failed SC Rebellion / T. Scarlett Epstein

Wangala SCs were in 1954 not aware of the privileges the Indian constitution had awarded them. It took a SC Congress Party politician from nearby Mandya town to encourage Wangala SCs to rebel against Peasant domination in a drama incident. He insisted that for the first time their SC actor king should sit on a throne and be thus higher than the Peasant audience who would sit on the ground. Wangala's Peasants strongly resented this and let it be known that not only they but also their fellow *jati* members from neighbouring villages would boycott such a drama performance. The SCs, advised by their Politician sponsor went to a lot of trouble and expense to stage the drama in their own residential area. He assured them of a large audience including the District Commissioner and other high ranking administrators from the nearby town of Mandya. Unfortunately for the SCs on the day of the performance light rain began to fall just when these officials started out for Wangala. This gave them a good excuse to turn back. Thus no more than a few entrance-paying SCs from neighbouring villages and myself attended the drama which though well performed turned out to be a complete disaster. The village *panchayat*, of which only Peasants were members, decided to punish the SCs by introducing a lockout of SC labour. To get this lockout lifted each SC had to pay a fixed amount as fine. This taught the SCs a lesson they have not forgotten to this day, though many things have changed since then. **The whole drama episode amounted to a political action by economic dependents against their masters and employers. The Peasants, however, formed a united front against their rebellious SCs and used economic sanctions to reassert their traditional socio-political dominance.**

*An extract from the Seventh M. N. Srinivas Memorial Lecture.*

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G. Venugopal



# Financial Statements

For the year 2007-2008

## NATIONAL INSTITUTE OF ADVANCED STUDIES

Indian Institute of Science Campus  
Bangalore 560 012

## SANTHAPPA & CO.,

Chartered Accountants  
# 201, 2<sup>nd</sup> Floor, House of Lords  
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# Auditors' Report

1. We have audited the attached Balance Sheet of NATIONAL INSTITUTE OF ADVANCED STUDIES, Indian Institute of Science Campus, Bangalore 560 012, as at March 31, 2008, the General Income and Expenditure Account and Sponsored Projects Income & Expenditure Account for the year ended on that date, annexed thereto. These Financial Statements are the responsibility of the Institute's Management. Our responsibility is to express an opinion on these Financial Statements based on our Audit.

We conducted our audit in accordance with Auditing standards generally accepted in India. Those Standards require that we plan and perform the audit to obtain reasonable assurance about whether the Financial Statements are free of material misstatement. An Audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the Financial Statements. An audit also includes assessing the accounting principles used and significant estimates by Management, as well as evaluating the overall Financial Statement presentation. We believe that our audit provides a reasonable basis for our opinion.

2. We have obtained all the information and explanations, which to the best of our knowledge

and belief were necessary for the purpose of our Audit.

3. In our opinion, proper Books of Accounts as required by law have been kept by the Institute so far as appears from our examination of such books.
4. The Balance Sheet and the Income and Expenditure Account dealt with by this report are in agreement with the books of account.
5. In our opinion and to the best of our information and according to the explanations given to us, the said accounts read with the schedules and notes thereon give a true and fair view in conformity with the accounting principles generally accepted in India:
  - a) In the case of the Balance Sheet, of the state of affairs of the Institute as at March 31, 2008,

AND

- b) In the case of Income and Expenditure Account, of the deficit in the General Income and Expenditure Account and surplus in the Sponsored Projects Income and Expenditure Account for the year ended on that date.

for SANTHAPPA & CO.,  
Chartered Accountants,

PLACE : BANGALORE  
DATE : MAY 26, 2008

Sd/-  
(A.C.RAJU)  
PARTNER  
M.NO.18134

**NATIONAL INSTITUTE OF ADVANCED STUDIES**  
Indian Institute of Science Campus, Bangalore 560 012

**BALANCE SHEET AS AT MARCH 31, 2008**

Particulars	As on 31/03/2008 Rs.	As on 31/03/2007 Rs.
<b>I. SOURCES OF FUNDS:</b>		
a) Capital Fund	32833106	38399465
b) Other Funds	200885031	187487499
c) Current Liabilities	847490	1090430
d) Depreciation Fund	56958496	50943453
<b>Total Rs.</b>	<b>291524123</b>	<b>277920847</b>
<b>II. APPLICATION OF FUNDS:</b>		
a) Fixed Assets	136914269	126077095
b) Investments	145514000	144904000
c) Advances & Deposits	3401196	2849616
d) Cash at Banks	5694658	4090136
<b>Total Rs.</b>	<b>291524123</b>	<b>277920847</b>

As per our report of even date,  
for SANTHAPPA & CO.,  
CHARTERED ACCOUNTANTS

Sd/-  
(DR. K. KASTURIRANGAN)  
DIRECTOR

Sd/-  
(A.C.RAJU)  
PARTNER

PLACE : BANGALORE  
DATE : MAY 26, 2008

Sd/-  
(E. K. KUTTY)  
HEAD-ADMINISTRATION

# NATIONAL INSTITUTE OF ADVANCED STUDIES

Indian Institute of Science Campus, Bangalore 560 012

## GENERAL INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED MARCH 31, 2008

Particulars	2007-08 Rs.	2006-07 Rs.
<b>A. INCOME:</b>		
Grants and Donations	1000000	3000000
Interest on Investments	10770074	11298881
Overhead & Administrative Charges Received	2681430	1452009
Research, Symposia & Course Receipts	4358863	5059988
Miscellaneous Income	4622580	4060928
<b>TOTAL (A) Rs.</b>	<b>23432946</b>	<b>24871805</b>
<b>B. EXPENDITURE:</b>		
Administrative Expenses	15202806	12637218
Travelling Expenses	574492	553606
Repairs and Maintenance Expenses	2386412	1663242
Research, Symposia and Course Expenses	5147177	5505382
Professorship Expenses	323051	835422
Miscellaneous Expenses	11162	78030
<b>TOTAL (B) Rs.</b>	<b>23645100</b>	<b>21272900</b>
<b>C. SURPLUS/(DEFICIT) BEFORE DEPRECIATION (A-B)</b>	<b>(212153)</b>	<b>3598905</b>
<b>LESS: DEPRECIATION</b>	<b>5354205</b>	<b>2672375</b>
<b>D. SURPLUS/(DEFICIT) AFTER DEPRECIATION</b>	<b>(5566358)</b>	<b>926530</b>

As per our report of even date,  
for SANTHAPPA & CO.,  
CHARTERED ACCOUNTANTS

Sd/-  
(DR. K. KASTURIRANGAN)  
DIRECTOR

Sd/-  
(A.C.RAJU)  
PARTNER

PLACE : BANGALORE  
DATE : MAY 26, 2008

Sd/-  
(E. K. KUTTY)  
HEAD-ADMINISTRATION

# NATIONAL INSTITUTE OF ADVANCED STUDIES

Indian Institute of Science Campus, Bangalore 560 012

## SPONSORED PROJECTS INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED MARCH 31, 2008

Particulars	Scientific Research As on 31/03/2008 Rs.	Scientific Research As on 31/03/2007 Rs.	Social Science Research As on 31/03/2008 Rs.	Social Science Research As on 31/03/2007 Rs.
<b>A. INCOME:</b>				
Projects Receipts	16756345	17054191	20242543	7610477
<b>TOTAL (A) Rs.</b>	<b>16756345</b>	<b>17054191</b>	<b>20242543</b>	<b>7610477</b>
<b>B. EXPENDITURE:</b>				
Projects Expenditure	15809062	15445776	19641457	8962211
Depreciation	566166	405232	94672	215757
<b>TOTAL (B) Rs.</b>	<b>16375228</b>	<b>15851008</b>	<b>19736129</b>	<b>9177968</b>
<b>C. SURPLUS/(DEFICIT) FOR YEAR (A-B) TRANSFERRED TO PROJECTS FUND</b>	<b>381117</b>	<b>1203183</b>	<b>506414</b>	<b>(1567490)</b>

As per our report of even date,  
for SANTHAPPA & CO.,  
CHARTERED ACCOUNTANTS

Sd/-  
(DR. K. KASTURIRANGAN)  
DIRECTOR

Sd/-  
(A.C.RAJU)  
PARTNER

PLACE : BANGALORE  
DATE : MAY 26, 2008

Sd/-  
(E. K. KUTTY)  
HEAD-ADMINISTRATION



