# NATIONAL CONFERENCE

on

# SCIENCE AND TECHNOLOGY: REACHING THE UNREACHED

Recent Advances in Physical, Chemical, Mathematical and Biological Sciences for Energy, Health and Environment

> NCST-RU 2017 8th - 9th September, 2017

> > Organized By





## THE INDIAN SCIENCE CONGRESS ASSOCIATION

Bangalore Chapter

in association with

## MANGALORE UNIVERSITY

(Accredited by NAAC with 'A' Grade)
Faculty of Science and Technology



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### ABOUT THE CONFERENCE

The Indian Science Congress Association (ISCA), the premier organization of scientists in the country, has been working towards the advancement and promotion of science in India since 1914. The annual Science congress of ISCA is organized from 3rd -7th January each year in a suitable place in the country. The 105th ISC will be held at Osmania University, Hyderabad, Telangana. The ISCA Bangalore chapter is organizing a two-day National Conference on 8th-9th September, 2017 in collaboration with Mangalore University on the theme Science and Technology - Reaching the Unreached with the focal theme "Recent advances in Physical, Chemical, Mathematical and Biological Sciences for Energy, Health and Environment".

#### ABOUT THE UNIVERSITY

Mangalore University was established in 1980 to fulfill the aspirations of the people of undivided Dakshina Kannada and Kodagu districts of Karnataka. It was re-accredited by NAAC with A'Grade in May 2014. Mangalore University is located about 20 kms to the south east of the historic port city of Mangalore. The picturesque & sprawling 353-acre campus, treated to the grand sight of the river Nethravathi meeting the Arabian Sea on one side and the cloud-capped Western Ghats on the other, sets the tone for educational endeavours.

The University has 26 postgraduate departments offering 38 Post Graduate programmes, one U.G. programme and 26 PhD programmes. The University has established a P.G.Centre at Chikka Aluvara (Cauvery Campus) in Kodagu district. The University has 3 centres for research in radiation physics and its applications: (i) Microtron Centre, (ii) Centre for Application of Radiation and Radioisotope Technologies (CARRT), and (iii) Center for Advanced Research in Environmental Radioactivity (CARER). At present, Mangalore University has 205 affiliated degree colleges, 4 constituent colleges and 5 autonomous colleges under its jurisdiction.

The Faculty of Science and Technology of Mangalore University exists with a vision to create a strong knowledge base, to evolve as an international centre of advanced studies and to cultivate quality human resource through teaching, learning and research. The Science Faculty has developed a strong research culture in emerging and innovative areas. It has established collaborative research with reputed national and international institutions and industries and has attracted extra-mural research funding.

Based on h-index, the DST has awarded the PURSE grant to procure specialized, high-end research equipment. PURSE Lab is set up to facilitate research on campus and to make the equipment accessible to researchers from other institutions. UGC has recognized the university as Centre with Potential for Excellence in a Particular Area (CPEPA) in Electron beam irradiation and functional materials. The university has forty adjunct faculties of international repute who visit to deliver lectures and interact with students and faculty. Thus far, the university has been selected to offer nine MHRD-funded GIAN programs offered by collaborating foreign faculty.

Five departments have received grants from UGC under the SAP programme and five under the UGC Innovative Programmes. Three departments have received support from DST under the FIST programme. Two departments have received support from VGST, Govt. of Karnataka. More information on Mangalore University is available on the website: (https://www.mangaloreuniversity.ac.in).

#### SUB THEMES

#### Physical Sciences

Materials for Energy, Environment and Health Care - Solar Energy and Application, Photovoltaic Technology, Geothermal Energy, Bioenergy and Biomass Energy Technology, Wind Energy and Application, Hydrogen and Fuel Cell Technology, Nuclear Energy, Sustainable Fossil Energy Systems, Renewable Energy Technologies, Renewable Energy Management and

Environmental Impact, Other Renewable Energies and Application. Radiation and Radioisotopes in Health Care - Radiation Biophysics, Radiotherapy and application, Radiopharmaceuticals, Nuclear Medicine. Environmental Physics - Environmental Radioactivity, Radiation Measurement, High Background Radiation Areas, Radiation Dosimetry, Environmental Monitoring.

#### Materials Science

Novel Semiconductor Materials- Physics and Devices, Advanced Batteries for Sustainable Technologies, Nanomaterials for Advanced Energy and Environmental Applications, Solar Photovoltaic's Materials, Manufacturing and Reliability, Transparent Electrode Materials and Devices, Computational Modeling and Simulation of Advanced Material Systems, Advanced Ceramics and Nanohybrids for Energy, Environment and Health, Smart Materials and Material-Critical Sensors & Transducers, Spintronics and Magnetic Materials.

#### Chemical Sciences

Drug design and discovery, Polymer technology in materials and medicine, Nanomaterials, Environmental electrochemistry, Green chemistry and catalysis, Agriculture and healthcare chemistry

## Mathematical, Statistical and Computational Sciences

Lattice theory, Graph Theory, Discrete mathematics, Differential equations, Linear Algebra, Topology, Stochastic Models, Finance, Regression, Generalised Linear models, partial linear models, Financial time series, Statistical Inference, Reliability Theory, Data Science, Machine Intelligence, Cloud Computing, Text mining.

## Earth, Atmosphere, Ocean and Environmental Sciences

Recent developments in earth, Atmosphere Ocean and related disciplines, Monsoon weather, climate change and pollution, and mitigation strategies, Coastal zone, vulnerability of the coastal zone, and issues related, and Paleoclimate and paleoceanography, and Mitigation of societal problems related to environment. Remote sensing and GIS Applications in Agriculture, Forestry, Soils and Land use, Earth Sciences, Water resources (surface and ground water), Marine resources and Coastal zone management, Urban infrastructure planning and Meteorology/Climatology. Solid waste management, Sewage treatment, Industrial effluents, Biodiversity, Water related issues, Ecosystem, Environmental Pollution and control, Environmental Impact Assessment and Auditing

#### **Biological Sciences**

Biodiversity, Applied Taxonomy, Population Genetics, Toxicology, Bioremediation, Biopesticides, Biofuels, Cancer Biology, Biomarkers, Drug Discovery, Biochemistry, Biotechnology, Biophysics, Molecular Biology, Nanobiotechnology, GM crops, Stress-tolerant crops, Neuroscience, Ethnopharmacology, Drugs from the Sea, Nutraceuticals, Reproductive Biology, Bioinformatics, Pharmacogenomics, Signal Transduction, Genomics, Proteomics, Epigenetic, Transcriptomics, Anthropology, Psychology, Fishery Biology, Marine Biotechnology Veterinary science, Parasitology and Vector Biology, Metabolic Disorders, Radiobiology, Stem Cell Biology, Immunology, Alternative and Complementary medicine, Entomology, Evolutionary Biology

## ORGANIZING COMMITTEE

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Dr. Yerol Narayana, Professor, Dept. of Physics

## CALL FOR ABSTRACTS

- Abstracts are invited on the theme and sub themes of the Conference
- Abstracts (not exceeding 500 words) in Word format should be submitted to the ncstru2017@gmail.com
- Abstract should include the name of the sub-theme, title of the paper, author(s) name(s) and affiliation(s), mailing address and e-mail address of the presenting author. Presenting author's name should be underlined
- Overall size of the poster: 1 m × 1 m

## IMPORTANT DATES

Abstract (Soft copy) submission : 5th August 2017
Notification of acceptance : 10th August 2017

Last date for registration with fee : 20th August 2017

Conference dates : 8th-9th September 2017

## REGISTRATION & ACCOMMODATION

		E	arly	Spot	
		egisti	ration Fee	Registration Fee	
Delegates (Academia & Industry) Students / Research Scholars Accompanying Person		Rs.	1000/-	Rs. 1200/- Rs. 600/- Rs. 500/-	600/-

Delegates are requested to make their own arrangements for their stay at Mangalore during the conference. However, paid accommodation can be arranged on prior request for delegates coming from other states. Accommodation can be arranged in the hotels at Mangalore or nearby place only on receipt of advance payment for a minimum of two days on first come first serve basis.

Indicate the category of accommodation preferred (rates mentioned

SI.	Single Occupancy	AC Rs. 1800/- Rs. 2250/-	Non AC Rs. 1500/- Rs. 2000/-	
	Double Occupancy		Rs. 300/-	
3	Guest House*	Rs. 500/-		

\*For students and delegates, university faculty guest house will be available on prior notice

#### PAYMENT

Bank Details: Convenor, NCSTRU-2017, SB A/c 36957080856 IFSC Code SBIN000803  1) Money Transfer: (Please tick one)  Name of Bank:	NEFT RTGS MPS
Date:	Amount
Transaction reference No.:	
OR	
2) DD No.: Bank d	erails:
Note: Please mention your Name, Add Demand Draft.	ress, Phone number behind the

# SOFT COPY OF REGISTRATION FORM CAN BE DOWNLOADED FROM www.mangaloreuniversity.ac.in

## FOR CORRESPONDENCE

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