MANGALORE UNIVERSITY

Centre for Advanced Research in Environmental Radioactivity (CARER)

&

INDIAN SOCIETY FOR RADIATION PHYSICS (ISRP)

20th National Symposium on Radiation Physics (NSRP-20)

Focal theme:

Radiation Measurements: Challenges in lowering of detection limits

Oct. 28-30, 2015

Organized by

Centre for Advanced Research in Environmental Radioactivity (CARER)

Mangalore University, Mangalagangothri - 574199

Patron

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Objectives and scope

The path-breaking discovery of X-rays by Wilhelm Conrad Roentgen in 1895, followed by the equally pioneering discoveries of radioactivity by Henry Becquerel in 1896 and polonium and radium by Curies in 1896 opened up a new arena called radiation sciences dealing with the fundamentals and applications of ionizing radiation. Thanks to the untiring efforts of scientists and technologists over the past few decades, a plethora of applications of ionizing radiations has been established and is being used today in almost every sphere of human activity for the benefit of mankind. Medicine, agriculture, industry, power. and food processing are some of the major sectors wherein ionizing radiation has established itself as a powerful and efficient tool.

The present Symposium, 20th in the series of National symposia organized by Indian society for Radiation Physics in collaboration with Centre for Advanced Research in Environmental Radioactivity (CARER), Mangalore University, has its focused theme as "Radiation Measurements : Challenges in lowering of detection limits". Measurement of radioactivity may involve material containing very small amounts of radionuclide of interest and measurement uncertainty often makes it difficult to distinguish such small amounts. An important performance characteristic of an analytical measurement process is detection capability or lower detection limit, which is usually expressed as the smallest concentration of analyte that can be reliably determined. Recent research has focused on improving detection capabilities and lowering the limits in radiaton detection, monitoring, and dosimetric techniques. The scientific programme of the conference will include invited talks, and papers in the form of oral and poster presentations. Eminent researchers working in different fields of radiation physics will deliver the plenary and invited talks. Efforts are being made to bring out the proceedings of the symposium, as a special edition of a peer-reviewed journal.

The major scientific themes to be covered in the symposium are:

Environmental radioactivity and their transfer pathways
Carbon-14 and organically bound tritium measurements in environmental matrices
Radon and thoron dosimetry in environment and workplaces
Basic radiation processes
Radiation protection in nuclear industry
Radiation dosimetry and transport
Radiation detectors
Biological effects of radiation
Internal dosimetry
Accelerator driven systems and fusion reactors
Reactor physics and shielding
Societal application - agriculture, industry, food processing and medicine

Patron

Prof. K. Byrappa, Vice Chancellor, Mangalore University

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Call for papers

Full-text papers/manuscripts not exceeding 6 pages in A4 size may be sent as an e-mail attachment to the conference office. The manuscript should be prepared by strictly adhering to the guidelines given in the Template, which can be downloaded from the symposium webpage. The abstract should be prepared as a Microsoft Word document, Times New Roman 12 point font, 1.5 lines spacing on an A4 size paper with one inch margins on all sides. It should contain the title of the paper, names of the authors (presenting author should be underlined) and affiliation with email ID. Illustrations with figures and tables should be avoided as far as possible. Any abstract not following the suggested format will be rejected.

Abstracts submitted for presentation in the conference will be peer reviewed by members of the scientific programme committee and experts in the field and its outcome will be communicated to the corresponding author.

Publication of the proceedings

It is planned to publish the full-length papers presented in the conference as well as its proceedings. The proceedings would have ISSN number, and ISRP would be the publishers of the proceedings.

Registration

Registration is pre-requisite for attending the conference and presenting a paper. Request for registration should be sent to the conference office.

Conference registration fees:

Foreign Participant	400 US$
Participants from India	Rs. 3,000 (ISRP member) Rs. 4,000 (non-ISRP member) Rs. 2,000 (Student participants)
Late registration	Rs. 4,000 (ISRP member) Rs. 5,000 (non-ISRP member)

Important deadlines

Pre-registration expressing interest	:	June 30, 2015
Full text paper submission	:	July 30, 2015
Information on acceptance of the paper	:	Aug. 30, 2015
Submission of the revised papers	:	Sept. 15, 2015
Regular registration	:	Sept. 15, 2015
Late registration	:	Oct. 15, 2015

Fee for participants includes:

- Participation in scientific sessions
- The printed material for the conference, including conference proceedings
- Lunch and coffee/snacks during breaks

About ISRP

The Indian Society for Radiation Physics (ISRP) was formed with the primary objective of providing a common forum to the scientists and engineers working on different basic as well as applied aspects of ionizing radiation. The idea of forming ISRP was first conceived during the National Symposium on Radiation Physics held in Mumbai in November 1970 under the inspiring leadership of the late Dr. A.K. Ganguly. The memorandum formally constituting ISRP was issued in July 1973 and the society was inaugurated by, Late Dr. Raja Ramanna in June 1976. Professionals from national laboratories, universities, and institutions of higher education, industry, etc. are members of ISRP.

To strengthen the countrywide spread of knowledge in the field of radiation physics, many chapters of ISRP have since been formed. These include the chapters at Mumbai, Kalpakkam, Patiala, Kolkata, Mysore, Mangalore, Coimbatore, Dharwad, Udaipur, and Hyderabad. ISRP has grown since its formation and has more than 500 life members. 4 series of semi-popular brochures and technical reviews on various facets of ionizing radiation has been published by ISRP. Some important ones are 'Ionizing Radiation for Non-Destructive Evaluation', 'Safety of Nuclear Power Reactors', Isotope Tracer Applications in Industry and Civil Engineering', 'Solid State Nuclear Track Detection, 'Theory and Applications' and 'Monte Carlo Basics'. Under ISRP, educational programme lectures, quiz contests related to radiation physics, and its applications are conducted in schools and colleges every year. A major (and an eminently successful) programme of ISRP has been conducting the National Symposia on Radiation Physics once every two years in collaboration with academic institutions such as Universities and national laboratories. The last symposium in this series was organized by Indira Gandhi Centre for Atomic Research (IGCAR) in which more than 300 scientists had participated.

About Mangalore University

Mangalore University was established in 1980, to fulfil the aspirations of the people of undivided Dakshina Kannada and Kodagu districts of Karnataka. The campus of Mangalore University, called Mangalagangothri, is located about 20 kms to the south-east of the historic coastal town of Mangalore. The picturesque campus sprawling over an area of 353 acres, treated to the grand sight of the river Nethravathi meeting the Arabian Sea on one side and cloud-capped Western Ghats on the other, sets the tone for educational endeavours of Dakshina Kannada, Udupi and Kodagu districts.

Mangalore University has grown impressively since its inception. It has, at present, under its jurisdiction 210 affiliated degree colleges, two constituent colleges, and five autonomous colleges. The University has 25 postgraduate departments offering 38 Post Graduate programmes and 26 PhD programmes. The University has established a P.G.Centre at Chikka Aluvar (Cauvery Campus), in Coorg district. The University has been accredited GRADE 'A' from NAAC in the year 2014.

Mangalore University has been recognized both nationally and internationally for its excellence in research in radiation physics. It has 3 centres for radiation physics research: (i) Centere for Advanced Research in Environmental Radioactivity (CARER), (ii) Microtron Centre, and (iii) Centre for Application of Radiation and Radio isotope Technologies (CARRT). These centres have well-equipped laboratories and are in research collaborations with many institutions.

About Centre for Advanced Research in Environmental Radioactivity (CARER)

The Centre for Advanced Research in Environmental Radioactivity (CARER) existed as "Radioecology Research Laboratory" in the University Science Instrumentation Centre, of Mangalore University. It has been engaged in detailed studies on different aspects of radioecology in the environs of the West Coast of India, Kaiga and Goa regions for the last 25 years with the support of BRNS and NPCIL. This laboratory has carried out baseline and radiological impact assessment studies around the Kaiga nuclear power station. Recently, this laboratory has initiated detailed studies on baseline levels of radioactivity in Gogi, which is a proposed Uranium mining site in North Karnataka region. This laboratory is also involved in the development of new technologies. Recently, a prototype thoron mitigation system for applications in the continuous removal of thoron in thorium processing facilities was developed in collaboration with BARC. The centre has ongoing collaboration research programmes with many countries and has excellent infrastructure with state-of-the-art instruments. Many scientists from other countries have visited this centre under visiting fellowships/sabbatical leave. It is considered as the best laboratory for radioecological and environmental radioactivity studies in the University system. Mangalore University has established these facilities through funding from BRNS and NPCIL. The following are some of the important facilities available in CARER:

- HpGe gamma spectrometers
- Well type NaI(Tl) gamma spectrometers
- Ultra Low Level Liquid Scintillation Counting System
- Alpha Spectrometers
- Sample Oxidizer
- Low background anticoincidence gross beta counting system with guard and main detectors (Nucleonix)
- Radon calibration facility
- Radon monitors
- SSNTD Laboratory
- Atomic Absorption Spectrometer with graphite furnace
- Radiochemical Laboratory
- Alpha Counting Systems
- Laser Flourimeter
- Walk-in Environmental Chamber, etc.

Researchers from ~ 50 different institutions of the country are using the facilities of CARER for research studies.

About Mangalore, India

A historic city, recognized as one of the most well-known ports of south India as early as 6th century AD, Mangalore exports many items, including coffee and cashew nuts. Mangalore is also renowned for its roof tiles and seafood, and is a busy commercial city.

The scenic landscape is dominated by distinctive coconut palms set against a backdrop of rolling hills and majestic streams flowing towards the Arabian Sea. The picturesque location contains many ancient buildings, roofed with the renowned Mangalore tiles of red clay dug from local places. The bustling city of Mangalore, with its winding roads, beautiful sandy beaches, ancient temples and churches makes a perfect destination for tourists to spend their time in a happy and relaxed manner.

Official conference hotels

THE OCEAN PEARL

A unit of Sagar Ratna hotel Pvt. Ltd., Navabharth circle, Kodialbail, Mangalore – 575003

Contact details
Phone: +91-824-2413800, 2491011
e-mails: info@theoceanpearl.in, contact@theoceanpearl.in
http://www.theoceanpearl.in/

Name and contact details	Room tariff (per night)
The Ocean Pearl	Rs. 4000 + TAX
Hotel Moti Mahal	Rs. 3,500 + TAX

MOTI MAHAL

Falnir Road
Mangalore-575001, Mangalore

Contact details
Phone : +91- 824-2441411 (16 lines)
Fax : 0824-2441011
sales@motimahal.co.in
http://www.motimahalmangalore.com

Tentative Hotel Tariffs (efforts are being made to get a special price for the conference participants)

Other low budget hotels

Name and contact details	Room tariff (per night)
The Saffron Hotel GHS Road, Mangalore Phone: +91-824-4255542	Rs.2770
Hotel Mangalore International K.S. Rao Road, Mangalore Phone: +91-824-2444859	Rs.1700 + TAX
Hotel Navarathna Palace K.S. Rao Road, Mangalore Phone: +91-824-2441104	Rs.1999+ TAX
Nalpad Residency Light House, Hill Road, Mangalore Phone: +91-824-2423756	Rs.1500+ TAX
MAYUR RESIDENCY BALMATTA, MANGALORE - 575 002 TEL : 0824 - 2212 313 / 343 / 433 / 943	Rs.1600 (including TAX)

Guest House accommodation

Efforts will be made to reserve some of the guest houses of academic institutions around Mangalore. Depending upon the availability, these would be made available to research students and teachers from academic institutions. The tariff of these guest houses will be about Rs. 300/- per day/per person on sharing basis. Those who require such accommodation should inform well in advance.

Reservation in Hotels

Accommodation to the delegates will be provided on receipt of the completely filled Accommodation Request Form (Form "B"). Last date for receiving application for accommodation booking is **Oct. 1, 2015.** The daily accommodation tariffs for different types of accommodations near the conference venue are indicated in the following table:

Note: Hotel reservation will be confirmed to the participants after receipt of the accommodation form and the registration fee. The organizing committee will consider the conference registration fee of each participant as guarantee for the reservation.

Mode of payment:

Hotel payment will be made by each participant on site, directly to the Hotel.

Tour programme

The possibilities of arranging a trip to nearby famous temples and important places of cultural heritage after the conference are being explored. However, this depends upon the participant's interest as they will have to bear the expense for such trips.

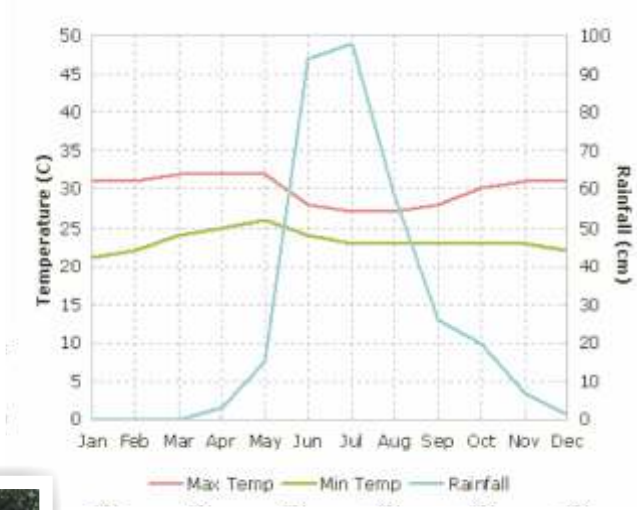
Transfer bus

A transfer bus will convey the delegates from the official hotels to Mangalore University campus for the conference sessions and after the conference sessions the transfer bus will return the delegates to the hotels.

How to reach Mangalore

By Air	The Mangalore Bajpe International airport is located nearly 10 km away from the city and is connected to many cities in India. Regular flights are available from Mangalore to Mumbai, Hyderabad, Bangalore and Chennai. Taxi services are available from airport to the city and cost is about Rs. 400. For delegates coming from north Indian states, it is recommended to take a flight to Mumbai or Bangalore, and then, take a connecting flight to Mangalore.
By Train	Mangalore is well connected other cities with direct train services available to many major stations of India. There are 2 railway stations in Mangalore – (i) Mangalore Junction, and (ii) Mangalore Central.
By Road	Smooth national highways link to nearby important places like Bangalore, Goa, Mumbai.

Weather chart for Mangalore



Venue of the conference:

Mangala Auditorium, Mangalagangothri,
Mangalore University - 574 199