



ENGMEDNEWS

Newsletter of Biomedical Engineering Society of India

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BMESI Sponsored Future Event

ABOUT THE CONFERENCE

The fourth International Conference on Clinical Diagnosis and Biomedical Devices ICCDBD 2023 (formerly referred as ICCDBD 2022) will be held during November 16-17, 2023 at Sri Shakthi Institute of Engineering and Technology, Coimbatore, Tamil Nadu, India. This conference aims to attract global participants to share their knowledge and explore the realm of Biomedical Engineering. This forum will discuss various approaches to biological and medical problems ranging from software modeling to healthcare, bioinformatics including biomechanics and computational bio imaging and will provide a unique look at how various techniques can offer solutions in modeling, pattern recognition, clustering, and other problems particular to the medical field.

This conference is expected to create a platform of discussion between scientists and engineers and will promote quality research and real-world impact in the field of Biomedical Engineering. The invitation is open for all academicians, research scholars, Post-Docs, PG and UG students, to discuss the latest developments and innovations in the field of Clinical diagnosis, artificial intelligence and device design in Biomedical Engineering

REGISTRATION FEE

Participant	Indian Nationals In ₹	Other Nationals In US\$
Students (UG/PG)	Rs.3000/-	40
Faculty members & Research persons	Rs.4000/-	50
Industrial persons and scientists	Rs.5000/-	70



DEPARTMENT OF BIOMEDICAL ENGINEERING

IN ASSOCIATION WITH
BIOMEDICAL ENGINEERING SOCIETY OF INDIA

PROUDLY ORGANIZES
TWO DAYS



INTERNATIONAL
CONFERENCE ON CLINICAL
DIAGNOSIS AND
BIOMEDICAL DEVICES
ICCDBD
2023

ON NOVEMBER 16 AND 17, 2023



FOR FURTHER DETAILS VISIT,
[HTTP://WWW.ICCDBD.IN/](http://www.iccdbd.in/) OR
CONTACT US ON
8675303639 (OR) 9600324677.

YOU CAN SCAN
THE BELOW QR CODE TO VISIT
WEBSITE





SAHYADRI
COLLEGE OF ENGINEERING & MANAGEMENT
An Autonomous Institution
MANGALURU



IEEE Mangalore Subsection



2023 IEEE International Conference on Distributed Computing, VLSI, Electrical Circuits and Robotics (2023 IEEE DISCOVER)

Organized by IEEE Mangalore Subsection
Hosted at Sahyadri College of Engineering & Management, Mangaluru, India

October 13th - 14th, 2023

Call for Papers

IEEE Mangalore Subsection (R0011901) is organizing 7th IEEE International Conference on Distributed Computing, VLSI, Electrical Circuits and Robotics (2023 IEEE DISCOVER).

2023 IEEE DISCOVER will be held in the serene premises of Sahyadri College of Engineering & Management in the region of Mangaluru, Karnataka, India. Being the seventh international conference under IEEE Mangalore Subsection, 2023 IEEE DISCOVER intends to attract people working in diverse fields: Distributed Computing, Software Engineering, VLSI, Verification, Communication Engineering, Electrical and Electronic Circuits, Robotics and Healthcare. The conference is designed to create a platform for researchers from academia and industry, practising engineers, and students. A series of keynote presentations, technical paper and poster presentations are planned to foster vigorous exchange of research findings and ideas among the participants. All accepted and presented papers will be submitted for possible publication in IEEE Xplore® Digital Library (Conference Record #58830), through the IEEE Conference Publications Program (CPP).

Tracks*

Track 1: **Distributed Computing**

Track 2: **Communications**

Track 3: **VLSI**

Track 4: **Electrical and Electronic Circuits**

Track 5: **Robotics**

Track 6: **Healthcare**

* Visit Conference website for detailed topics covered.

Registration Fee:

Registration Type	Indian Author	Foreign Author
Regular Author (Industry)	INR 10000	USD 350
Regular Author (Academia)	INR 8000	USD 300
IEEE Author	INR 7500	USD 250
Student Author	INR 7000	USD 250
IEEE Student Author	INR 6500	USD 200
Regular Attendee	INR 3000	USD 150
Student Attendee	INR 2500	USD 100

Important Dates:

Paper Submission Deadline: Wednesday, May 31, 2023 -
Thursday, June 15, 2023*
*Deadline Extended

Acceptance Notification: Tuesday, August 8, 2023

Registration Deadline: Monday, September 18, 2023

CRC Submission Deadline: Monday, September 18, 2023

Conference Dates: October 13 - 14, 2023 (Friday and Saturday)

Contact:
Organizing Chairs

Mustafa Basthikodi, SCEM, Mangaluru, India : **+91 9844535720**

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Email: 2023ieeediscover@sahyadri.edu.in

Paper Submission Link: <https://cmt3.research.microsoft.com/DISCOVER2023>

Host Institution Website: www.sahyadri.edu.in | Conference Website: <https://www.ieee-discover.org/>



**RAJALAKSHMI
ENGINEERING COLLEGE**
An AUTONOMOUS Institution
Affiliated to ANNA UNIVERSITY, Chennai

Department Of Biomedical Engineering

A Report on International Conference on Research and Innovation in Biomedical Engineering (RIBE 2023)

The International Conference on Research and Innovation in Biomedical Engineering (RIBE 2023) held on 27th and 28th July 2023 was a significant event that brought together researchers, scholars, and experts in the field of biomedical engineering. The conference aimed to foster collaboration, share innovative ideas, and discuss the latest trends in the ever-evolving field of biomedical engineering.

The RIBE 2023 was a successful event that received a total of 201 research articles from various contributors. Out of these submissions, 167 high-quality articles were accepted for presentation at the conference. Out of the accepted articles, 146 authors registered for presenting their work at the conference. It is noteworthy that 141 authors effectively presented their papers in both online and offline modes, showcasing the conference's commitment to facilitating hybrid participation and knowledge dissemination.





A Report
On
National Conference on Biomedical Engineering and Technology
(NCBET23)
20th & 21st April 2023
Organized by
Department of Biomedical Engineering
School of Bioengineering
SRM Institute of Science and Technology, Kattankulathur – 603 203



SRM
INSTITUTE OF SCIENCE & TECHNOLOGY
(Deemed to be University u/s 3 of UGC Act, 1956)



Department of Biomedical Engineering
School of Bio-Engineering
College of Engineering and Technology
SRMIST Kattankulathur

Cordially invite you to

NATIONAL CONFERENCE
ON
BIOMEDICAL ENGINEERING AND TECHNOLOGY
NCBET23

Inaugural Programme

on 20th April, 2023 at 09:30 AM
in Mini Hall-I, Dr. T. P. Ganesan Auditorium
SRMIST, Kattankulathur 603203

Co-sponsored by



About The Conference

All efforts and innovation in the field of medicine aims at improving clinical outcomes, patient care, precise diagnosis and improved therapy. Importance to affordability, accessibility and ease of use are of priority to tackle the evolving global challenges. With increasing health problems and diagnosis, large data is available for analysis. The need for intelligent systems to handle, sort, analyse, predict the condition and suggest an appropriate treatment plan is on the rise. This emerging field is a result of contribution from various technologies pertaining to image processing, signal processing, computer vision, machine learning, deep learning, IoT, etc. Bringing together academicians and industry personnel working on these aspects and to find ways of improving the existing techniques is very important to leverage its potential. This conference aims at bringing together experts to showcase their contribution and opportunities for evolution in the research work for improved outcomes.







Hindusthan College of Engineering and Technology

Report for Five Days Faculty Development Program on Radiological Equipment's

<p>CORRESPONDENCE</p> <p>Shri. T.S.R.Khannaayann Chairman</p> <p>Smt.T.R.K Sarasuwathi Secretary</p> <p>Shri. K.Sakthivel Trustee</p> <p>Dr. K.Priya Executive Secretary</p>	<p>REGISTRATION</p> <ul style="list-style-type: none"> No Registration Fees Registration Link: https://forms.gle/iLpvyRHxR691KvsU6 	<p>Five Days Online Faculty Development Program on "Radiological Equipments" 8th May 2023 to 12th May 2023</p>   <p>Organized by DEPARTMENT OF BIOMEDICAL ENGINEERING</p>
<p>ORGANIZING COMMITTEE</p> <p>Chief Patron</p> <p>Dr.K.Karunakaran CEO-HICET</p> <p>Patron</p> <p>Dr.J.Jaya Principal-HICET</p> <p>Convener</p> <p>Dr.S.Saravanasundaram HOD/BME</p> <p>Coordinators</p> <p>Ms.M.Deeparani,AP/BME Ms.K.Kiruthika,AP/BME</p> <p>Contact Details : 9842203434 6381370086</p>	<p>HINDUSTHAN COLLEGE OF ENGINEERING AND TECHNOLOGY (An Autonomous Institution) Valley Campus, Pollachi Highway, Coimbatore – 641032.</p>	<p>Conducted by Hindusthan College of Engineering and Technology, (An Autonomous Institution) Valley Campus, Pollachi Main road Coimbatore – 32.</p>
<p>ABOUT THE INSTITUTION</p> <p>Hindusthan College of Engineering and Technology (HICET), is an autonomous institution approved by AICTE, and is affiliated to the Anna University, Chennai. The Institution was established in the year 2000. HICET is one of frontline autonomous technical institution imparting quality technical education and is NBA accredited with ISO 9001: 2015 certified and NAAC certified with "A" grade. The Hindusthan Educational and Charitable Trust known for its vision, dynamism and philanthropy are run under the eminent and praiseworthy leadership of Shri. T.S.R.Khannaayann, Chairman, Smt. T.R.K. Sarasuwathi, Secretary, and Dr. K.Priya, Executive Secretary. HICET is currently offering 15 UG and 7 PG Programmes in Engineering, Technology and Applied Sciences.</p>	<ul style="list-style-type: none"> Fluoroscopy and Mammography Imaging modalities in Nuclear Medicine Radio Diagnostics and Radiation Therapy Radiation Safety and Protection 	<p>Day 2 – 09.05.2023 Dr. N. NANDAKUMAR Proprietor / Bio Medical Engineer, PRIME BIO MEDICAL SYSTEMS, Tiruppur. Topic: Current Trends in Radiological Equipment and Its Application</p>
<p>ABOUT THE DEPARTMENT</p> <p>The Department of BME is devoted to establish innovative biomedical solutions to improve healthcare and well-being of people all over the world. Biomedical Engineering is the application of various engineering principles and technology to medicine and biology, for bettering the lives of people all over the world. It focuses on integrating the healthcare field with the problem solving and designing skills of engineering principles thus bridging medical science and engineering disciplines. Biomedical Engineering is a multi-disciplinary course with many opportunities for research and specialization. It involves studying all types of engineering ranging from electronics, computers, mechanical, chemical and Nano technology.</p>	<p>ELIGIBILITY OF PARTICIPANTS</p> <p>The FDP is open to all eligible Faculty members and Research Scholars from approved AICTE and ANNA UNIVERSITY affiliated Institutions</p>	<p>Day 3 - 10.05.2023 Mr.DHAKSHINAMOORTHY PROPRIETOR, Medingers Healthcare Solutions Erode. Topic: Application of X-ray in modern Prognosis</p>
<p>OBJECTIVE OF THE WORKSHOP</p> <p>The five days online faculty development program on Radiological Equipments provide knowledge about</p> <ul style="list-style-type: none"> Fundamentals of Radiological Equipment with Insights into the Recent AI Era X-Ray, CT,MRI Digital Radiography 	<p>RESOURCE PERSONS</p> <p>Day 1-08.05.2023 Mr. D. SIVAKUMAR Assistant Professor & Head Medical Physics Dr.N.G.P. Arts and Science College, Coimbatore. Topic: Nuclear Medicine</p> <p>Day 1-08.05.2023 Dr.M.KALAMANI Associate Professor KPR Institute of Engineering and Technology Coimbatore. Topic: MRI scanner and Its Applications</p> <p>Day 2 - 09.05.2023 Dr.C.SENTHAMIL SELVAN Lecturer cum RSO, FAHS & Dept. of Radio-Diagnosis, MGMCRI, Puducherry. Radiation Safety, Teaching for B.Sc. MIT & M.D (RD) and Research Topic: Fundamentals of Radiological Equipment with Insights into the Recent AI Era</p>	<p>Day 3 - 10.05.2023 Ms. SREEPADMINI R Assistant Professor, PSG College of Technology, Coimbatore. Topic: Clinical Applications of Dynamic Digital Radiography</p>
		<p>Day 4 - 11.05.2023 Prof. A THIRUGNAMAM Associate Professor, Biotechnology and Medical Engineering, National Institute of Technology, Rourkela. Topic: Radiation Therapy for Cancer</p>
		<p>Day 4 - 11.05.2023 Dr. BANU REKHA B Associate Professor, PSG College of Technology, Coimbatore. Topic: Radiation Protection</p>
		<p>Day -5 -12.05.2023 Hindusthan Hospital Visit</p>



Patients with brain disorders

- Glucose is the main fuel of the brain. By attaching Radiotracers to glucose, the PET scan is able to detect which areas of the brain are utilizing glucose at the highest rates.
- PET scans of the brain are used to evaluate patients who have memory disorders of an undetermined cause, suspected or proven brain tumors or seizure disorders that are not responsive to medical therapy and are therefore candidates for surgery.
- A seizure is usually defined as a sudden alteration of behavior due to a temporary change in the electrical functioning of the brain. Normally, the brain continuously generates tiny electrical impulses in an orderly



1. Ultrasonography Machine



HISTORY OF X-RAY

In many languages, X-radiation is referred to as Röntgen radiation, after the German scientist Wilhelm Röntgen, who discovered it on November 8, 1895.

In his laboratory he had set up conventional apparatus to investigate cathode rays. During an experiment with vacuum tubes and Ruhmkorff coil Rontgen made his ingenious discovery.

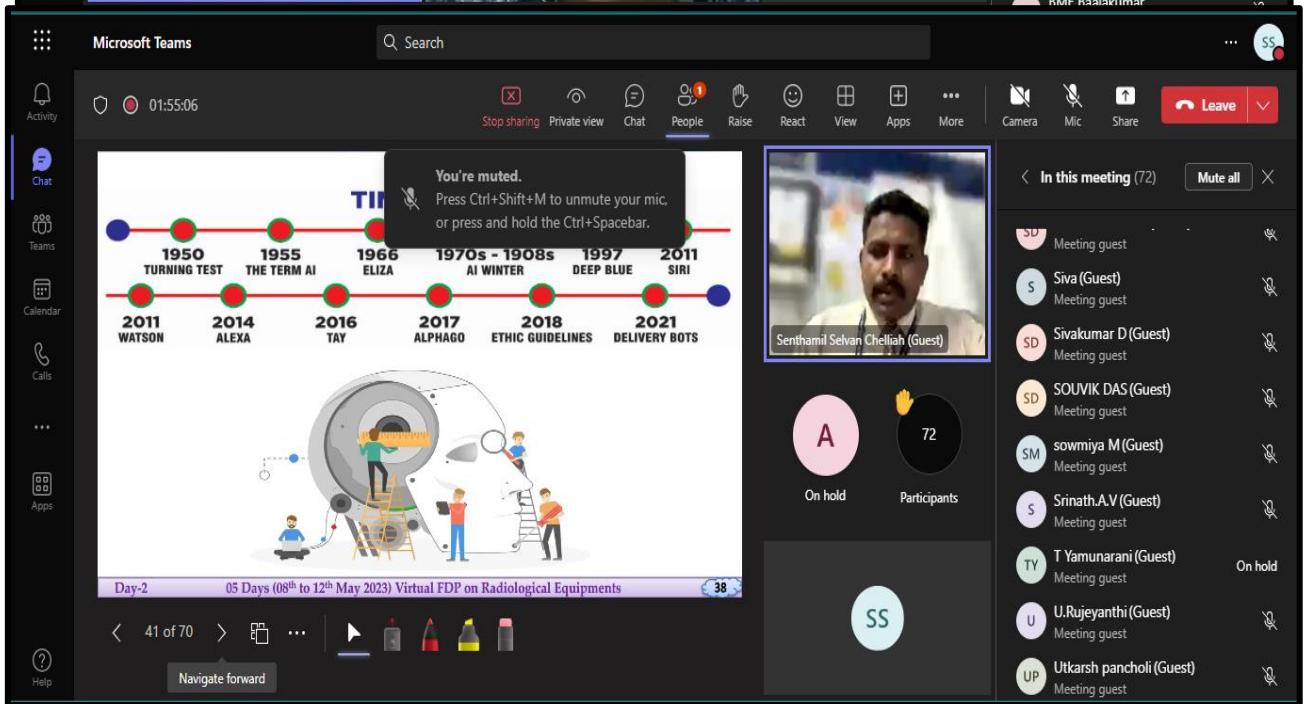
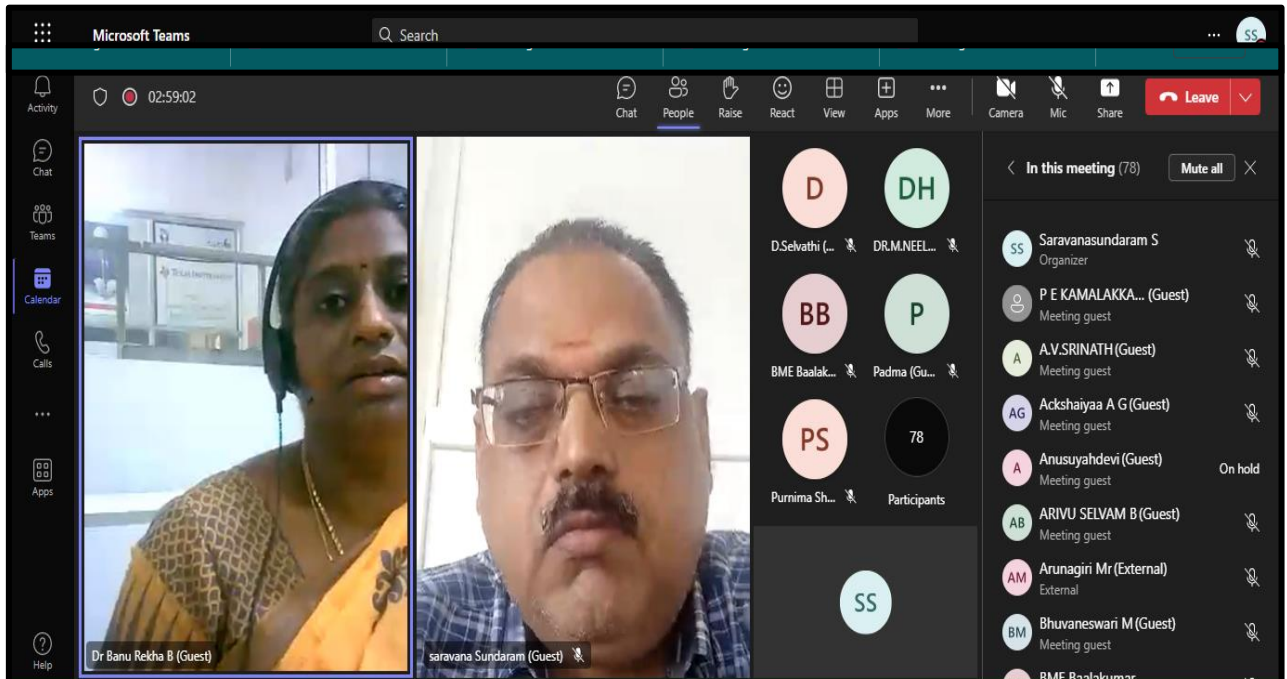
In the following test Rontgen noticed that several crystals lying on the table began to fluoresce as soon as the induction current was switched on .

Rontgen was able to investigate the permeability of materials between the tube and the screen. Finally he replaced a screen by a photographic plate.

A few days later, Rontgen made a photographic image of his wife's hand, using the new rays instead of light for the exposure.

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Compiled by Dr. Muralidhar Bairy, Secretary, BMESI, India.

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