

# INTERNATIONAL CONFERENCE ON



"DEVELOPMENTS IN ALZHEIMER'S DISEASE  
TREATMENT AND EARLY INTERVENTION  
THROUGH CUTTING EDGE TECHNOLOGIES"

# INCDAD 2024

2<sup>nd</sup> and 3<sup>rd</sup> August 2024



Organized by:  
Department of Biomedical Engineering &  
Department of Electronics and Communication Engineering  
School of Electronics, Electrical and Biomedical Technology



**KALASALINGAM**  
Academy of Research and Education  
(DEEMED TO BE UNIVERSITY)

Estd.U/S 3 of UGC Act 1956. Accredited by MAAC with "A++" Grade  
Anand Nagar, Krishnankoil - 626 126. Virudhunagar District. Tamilnadu, India.

## CHIEF PATRONS

**Dr. K. Sridharan**, Chancellor, KARE  
**Dr. S. Arivalagi**, Pro Chancellor, KARE

## PATRONS

**Dr.S.Shasi Anand**, Vice President, KARE  
**Mr.S.Arjun Kalasalingam**, Vice President, KARE

## CO-PATRONS

**Dr. S. Narayanan**, Vice Chancellor, KARE  
**Dr. V. Vasudevan**, Registrar, KARE

## ORGANIZING CHAIRS

**Dr.M. Pallikonda Rajasekaran**,  
Director(R&D), KARE

**Dr.P.Sivakumar**, Dean-SEET, KARE

## PROGRAM CHAIR

**Prof.Dr.V.Yegna Narayanan**, KARE

## CONVENOR

**Dr.T.Arunprasath**, HOD/BME KARE

**Dr.A.Muthukumar**, HOD/ECE KARE

## ORGANIZING SECRETARY

**Dr.S.Sakthivel**, BME, KARE

**Dr.K.Pandiaraj**, ECE, KARE

## INTERNATIONAL ADVISORY COMMITTEE

**Prof. Shihab Shamma**, Institute of Systems Research University of Maryland, USA  
**Prof. Barbara Shinn-Cunningham**, Director, Neuroscience Institute, CMU, USA.  
**Prof. Rajesh P. N. Rao**, University of Washington, Seattle, USA.  
**Prof. Elizabeth Hwang**, University of Washington, Seattle, USA.  
**Prof. Paul G.** University of Washington, Seattle, USA.  
**Prof. Madhav Thambisetty**,  
National Institute on Aging & National Institutes of Health (NIH), USA.  
**Prof. John Morris**, Washington University, USA.  
**Prof. Bart D Strooper**, Dementia Research Institute, UK.  
**Prof. Mary Ganguli**, University of Pittsburgh, USA.  
**Prof. Maria C. Carrillo**, Chief Science Officer at Alzheimer Association, USA.  
**Prof. Sudha Seshadri**, Glenn Biggs Institute of Alzheimer Neurodegenerative  
Diseases San Antonio, USA  
**Dr. Shanmuga Sundar Dhanabalan**, RMIT University, Australia  
**Dr. Preethika Immaculate Britto**, King Faisal University, Kingdom of Saudi Arabia.  
**Dr. B. Sundaravadivazhagan**,  
University of Technology and Applied Sciences-AI Mussanah, Oman.  
**Dr. Karthikeyan Thangavel**,  
University of Technology and Applied Sciences, Sultanate of Oman.

**Dr Krishna Priya R**, University of Technology and Applied Sciences, Musandam, Oman.  
**Prof. Michal Jasinski**, Wroclaw University of Science and Technology, Poland.  
**Dr. Ruchi Doshi**, Universidad Azteca, Mexico.  
**Dr. Ashok Vajravelu**, Universiti Tun Hussein Onn Malaysia (UTHM),  
**Dr Suresh Manic K**, National University, Oman  
**Dr. Subburaj Alagarsamy**, Manipal Academy of Higher Education, Dubai.

## NATIONAL ADVISORY COMMITTEE

**Prof. Ravindranath Vijayalakshmi**,  
Former Director, Centre for Brain Research, CBR, Bangalore  
**Prof. Aditya Murthy**, Centre for Neuroscience, IISC, Bengaluru, India  
**Prof. S.P Arun**, Centre for Neuroscience, IISC, Bengaluru, India.  
**Prof. Manikandan Narayanan**,  
Department of Computer Science and Engineering, IIT Madras, India.  
**Prof. Mohana Sankar Sivaprakasam**, IIT Madras, India.  
**Dr. Gaiti Hasan**, National Centre for Biological Sciences, TIFR, Bengaluru, INDIA.  
**Dr. Sivakumar P T**,  
National Institute of Mental Health and Neurosciences, Bengaluru, INDIA.  
**Dr. Chithra Lekha**,  
Virginia Tech India, Research Park, Indian Institute of Technology, Madras.  
**Dr. K. Venkataraman**,  
Managing Director, Biovision Medical Systems Pvt. Ltd, Chennai.  
**Dr. K.Shankar**, NIT Silchar, Assam  
**Dr. A. Thirugnanam**, NIT Rourkela, Odisha.  
**Dr. Sundareswaran K**, National Institute of Technology, Tiruchirappalli.  
**Dr J.B. Jeeva**, VIT University, Vellore  
**Dr. D.Saraswathi**, VIT University, Chennai.  
**Dr Karthikeyan**, SRM University, Andhra Pradesh  
**Dr. R. K. Jeyachitra**, National Institute of Technology, Tiruchirappalli  
**Dr. B. Rebekka**, National Institute of Technology, Tiruchirappalli  
**Dr.Hariharan S**, Vellore Institute of Technology, Vellore  
**Dr.Nithish Kumar V**, VIT University, Vellore  
**Dr.Sumaiya MN**, Dayananda Sagar Academy of Technology and Management, Bangalore.  
**Dr. Jayakumar K**, Vellore Institute of Technology, Vellore.

## INSTITUTE ADVISORY COMMITTEES

**Dr.J.T.Winowlin Jappes**, CoE, KARE  
**Dr.Koteswara Rao Anne**, Director(Academics), KARE  
**Dr.C.Sivapragasam**, Director(IOAC), KARE  
**Dr.P.Sarasu**, Director(International Relations)  
**Dr.A.Alavudeen**, Director(Corporate Relations)  
**Dr.A.Samson Nesaraj**, Director(Student Affairs),KARE  
**Dr.K.Sundar**, Dean(SBCE), KARE  
**Dr.P.Deepalakshmi**, Dean(SoC), KARE  
**Dr.S.Rajesh**, Dean(SAMCE), KARE  
**Dr. Jesu Edward George**, Dean(Agri & Horti), KARE  
**Dr.P.Ganesan**, Dean(KBS), KARE  
**Dr.V.Pandiyarajan**, Dean(SLACE), KARE  
**Dr.N.Rajini**, Dean (FE), KARE

## ABOUT THE UNIVERSITY

Kalasalingam Academy of Research and Education (KARE) formerly Arulmigu Kalasalingam College of Engineering was established in 1984 by the pioneering Kalasalingam Anandam Ammal Charities. Located at the pristine foothills of the scenic Western Ghats, the college obtained the Deemed to be University status in 2006. The Institution has been serving the society for forty four long years and it caters to the needs of the students from all walks of the society. KARE offers UG programmes, PG programmes and Ph.D programmes. It is the first Institution in India to introduce a special B.Tech programme in engineering for the differently able (speech and hearing impaired) students. The Institution has been re-accredited by NAAC with 'A++' grade in 2024. 8 UG & 3 PG programmes have been accredited by NBA under Tier-1. The Institution continues to do indefatigable work in getting projects and research centers. It has received DST funding to establish the National Center for Advance Research in Discrete Mathematics. KARE has got the state of the art International Research Center with splendid high end instruments for advanced research in material sciences and life sciences. Multistoried separate hostels with plenty of facilities provide accommodation to thousands of students. The institution has spent exorbitant sum to create a world class swimming pool and indoor auditorium for sports. Furthermore KARE gives utmost importance to Intra-mural and Extra mural activities for the holistic development of the students

## About the Department of Biomedical Engineering

Established in the year 2015-16 with an aim of creating skilled leaders for the modern health care industry, the department of Biomedical Engineering offers B.Tech Programme in Biomedical Engineering. This branch of engineering covers the application of engineering principles and design concepts to medicine and biology for healthcare purposes. This emerging field seeks to close the gap between engineering and medicine, combining the design and problem-solving skills of engineering with medical biological sciences to advance health care treatment, including diagnosis, monitoring, and therapy. The department has experienced and trained faculty to impart knowledge in this specialized field. The programme is accredited by ABET, an international accreditation body for engineering and technical education. The Department of Biomedical Engineering puts massive efforts to deliver incomparable Biomedical engineering education using advanced teaching pedagogy and learning support for undergraduate students. The department provides state of the art research infrastructure for the students.

## About the Department of Electronics and Communication Engineering

Established in 1993, the Department of Electronics and Communication Engineering offers B.Tech. in Electronics and Communication Engineering, M.Tech. in VLSI Design, and Ph.D. programs in various allied fields. Committed to providing quality professional education, the department boasts well-experienced and dedicated faculty members aiming to impart sound knowledge and awareness of the latest trends in the field. Accredited by NBA under Tier-I category, the programs also hold accreditation from ABET. The department collaborates with industry giants such as Nanochip Solutions, Tessolve Semiconductors, National Instruments, and Bluetronics to ensure students are industry-ready. With the "Centre for VLSI and Signal Processing" sponsored by DST, Government of India, under the FIST scheme, the department provides state-of-the-art laboratories in collaboration with industry partners like Tessolve Semiconductors, Intel-Altera, and Texas Instruments.

## Theme

"Innovations in Alzheimer's Care: Leveraging Technology for Early Intervention and Improved Outcomes"

This theme encapsulates the focus on advancements in treatment approaches, the importance of early intervention, and the pivotal role of cutting-edge technologies in addressing the challenges posed by Alzheimer's disease. It highlights the conference's emphasis on exploring innovative solutions to enhance diagnosis, treatment, and caregiving practices, ultimately aiming to improve the quality of life for individuals affected by Alzheimer's and their caregivers.

## Interest areas of the conference include but are not limited to

1. Neuroimaging and Biomarkers
2. Precision Medicine Approaches
3. Drug Discovery and Development
4. Digital Health and Wearable Technologies
5. Neurostimulation and Brain-Computer Interfaces
6. Big Data Analytics and Artificial Intelligence
7. Non-Pharmacological Interventions
8. Regenerative Medicine and Stem Cell Therapy
9. Ethical Considerations and Patient-Centered Care
10. Emerging Pharmacological Therapies
11. Immunotherapy and Vaccination Strategies
12. Wireless Communication Systems
13. Signal Processing and Image Processing
14. Embedded Systems and IoT
15. Digital Electronics and VLSI Design
16. Biomedical Signal Processing and Medical Electronics
17. Cyber-Physical Systems and Robotics
18. Communication Networks

## Paper Submission and Registration link

The paper selection process will employ a double-blind review system, ensuring anonymity for both authors and reviewers.

Papers should be 4 to 5 pages long and in the IEEE conference paper template. The templates are available at the link <https://www.ieee.org/conferences/publishing/templates.html>

Authors must ensure that their manuscript is original work and properly cite any sources they use. Plagiarism, including self-plagiarism, is strictly prohibited.

Submission link  
<https://cmt3.research.microsoft.com/INCDAD2024>

Submission/Index  
or  
using the QR code



## Publications

All accepted papers will be published in conference proceedings with the ISBN. Selected papers will be published in the Scopus-indexed journals after peer review. The list of journals will be announced in due course.

## IMPORTANT DATES

Beginning of Submission of full-length paper: 11<sup>th</sup> March 2024

Last date for full-length paper: 15<sup>th</sup> May 2024

Notification of Acceptance: 05<sup>th</sup> June 2024

Last date for Conference Registration: 30<sup>th</sup> June 2024

Conference Date: 2<sup>nd</sup> - 3<sup>rd</sup>, August 2024

## REGISTRATION FEES (INCLUDING GST)

DELEGATES	INDIAN PARTICIPANTS	INTERNATIONAL PARTICIPANTS
<b>WITH PAPERS</b>		
Student/Research Scholars	Rs.3500/-	USD 100
Academia participants	Rs.5000/-	USD 150
Industrial participants	Rs.10000/-	USD 250
<b>WITHOUT PAPERS</b>		
Student/Research Scholars	Rs.1000/-	USD 50
Academia participants	Rs.1500/-	USD 75
Industrial participants	Rs.5000/-	USD 125

## ACCOUNT DETAILS

Name: ASELCOME,  
Ac.No: 627302010006920,  
Name of The Bank: Union Bank of India,  
IFSC Code : UBINO562734

## CONTACT DETAILS

Dr. S. Sakthivel, Dr. K. Pandiaraj  
Organizing Secretary  
INCDAD 2024  
Kalasalingam Academy of Research & Education  
Mail ID: [incdad2024@klu.ac.in](mailto:incdad2024@klu.ac.in)  
Mobile: 73051 61992, 98941 94531