



SPARC online lecture series
on

Design, Fabrication and Applications of Microsystems and Microfluidics

12th - 16th August, 2022

Sponsored by



Scheme for Promotion of Academic and Research Collaboration



सत्यमेव जयते

Course Instructor

Prof. Muthukumaran Packirisamy



M. Packirisamy, a strong promoter of innovation in Canada in the area of Bio-Microsystems, is a Professor and *Concordia Research Chair on Optical-Bio-Microsystems* at Concordia University. As the Director of Micro-Nano-Bio Integration Center and Optical-Bio-Microsystems Lab, he studies nano integrated microsystems for cancer diagnosis to green energy harvesting, Lab on Chip, Bio-Microsystems and micro-nano integration.

He is the recipient of *Member Royal Society of Canada College, Fellow National Academy of Inventors (US), Fellow Indian National Academy of Engineering, Fellow Engineering Institute of Canada, Fellow Canadian Academy of Engineering, Fellow American Society of Mechanical Engineers, Fellow Institution of Engineers India and Fellow Canadian Society for Mechanical Engineering*. He is also the recipient of multiple Awards such as *I.W.Smith award* from Canadian Society for Mechanical Engineering, *Concordia University Research Fellow, Petro Canada Young Innovator Award and ENCS Young Research Achievement Award*. As an author of around 500 articles published in journals and conference proceedings, 49 invited talks, 30 inventions, he has obtained Grants of around \$16 Million and supervised more than 16 Research Associates/PDF, 33 PhDs, 54 Masters and 71 UG students in addition to teaching around 4000 students. He has also published a textbook, *BioMEMS: Engineering and Science Perspectives*, and 6 book chapters. His Recent invention on energy harvesting from *photosynthesis of blue green algae* and Direct Sound Printing had more than 400 citations around the world and was covered by most of the countries and media throughout the world. In addition to helping many start-up companies establish and incubate, he collaborates with many industries to commercialize his inventions, train students to create companies and create innovative mind-set among students.

Course coordinators

Dr. Sujatha Chandramohan
Professor,
Dept. Of Mechanical Engineering,
IIT Madras

Dr. Hemantha Kumar
Associate Professor,
Dept. Of Mechanical Engineering,
NIT Karnataka

Session details

August 12 th 2022 3:30 PM - 6:00 PM	Introduction, Design, Fabrication of Microsystems
August 13 th 2022 3:30 PM - 6:00 PM	Concept of Integration in Micro-systems and Possibilities
August 14 th 2022 3:30 PM - 6:00 PM	Cantilever Systems and Applications: Overview
August 15 th 2022 3:30 PM - 6:00 PM	Lab on Chips: Diagnosis, Prognosis and Therapeutics
August 16 th 2022 3:30 PM - 6:00 PM	Microsystems and Microfluidics for MR Possibilities

Who can apply?

UG, PG, Ph.D. Scholars, Faculty & Professionals from various Academic / Research Organizations and Industries.

Maximum seats: 100 on first cum first served basis

Certification

E-Certificates shall be issued to the registered participants approved by the coordinator, provided the participant obtains at least 80% attendance in the lecture series.

Registration

No Registration Fee

Last date for registration is 11th August 2022

How to apply?

Participants who are interested in attending this program need to make compulsory online registration on the below mentioned link or by scanning the given QR code.

<https://forms.gle/YnpNjC8UrzS2RCGE6>



About

SPARC

The Scheme for Promotion of Academic and Research Collaboration (SPARC) aims at improving the research ecosystem of India's Higher Educational Institutions by facilitating academic and research collaborations between Indian Institutions and the best institutions in the world from 28 selected nations to jointly solve problems of national and international relevance.

IIT Madras

IIT Madras, an Institute of Eminence (IoE), is among the country's pre-eminent institutes known both nationally and internationally for excellence in technical education, basic and applied research, innovation, entrepreneurship and industrial consultancy. A faculty of international repute, a highly motivated and brilliant student community, excellent technical and supporting staff and an effective administration have all contributed to the pre-eminent status of IIT Madras. IIT Madras has been the top-ranked engineering institute in India for four consecutive years as well as the 'Best Educational Institution' in Overall Category in the NIRF rankings of 2019 put out by the Ministry of Human Resource Development

NIT Karnataka

National Institute of Technology Karnataka (NITK), Surathkal has established itself as one of the top technological institutes in India and is recognized as an institute of National importance. The Institute has ranked at ranked 10 in NIRF ranking 2022. The Institute is considered a premier center engaged in imparting quality technological education and providing support to research and development activities.

Concordia University

Concordia University is a next-generation university, continually reimagining the future of higher education. Located in the vibrant and multicultural city of Montreal, Concordia is the top-ranked university in North America founded within the last 50 years and annually registers some 51,000 students through its innovative approach to experiential learning and cross-functional research.

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