



EASWARI
ENGINEERING COLLEGE
An AUTONOMOUS Institution
Affiliated to ANNA UNIVERSITY
RAMAPURAM, CHENNAI



JOINTLY ORGANIZED BY



AICTE Training And Learning Academy (ATAL)
Faculty Development Programme

APPLICATION OF ARTIFICIAL INTELLIGENCE ON BIOMEDICAL ENGINEERING

18.12.2023 to 23.12.2023



Organized by

**DEPARTMENT OF
BIOMEDICAL ENGINEERING**

Website: www.srmeaswari.ac.in

ABOUT THE COLLEGE

EASWARI ENGINEERING COLLEGE (An Autonomous Institution), a unit of SRM Group Educational Institutions for higher learning is functioning under “Valliammai Society”. The society was founded in the year 1975, for promoting the cause of Quality Education by Dr.T.R. Paarivendhar an academican and Educationist. Easwari Engineering College was instituted in the academic year 1996 -1997, with the Approval of Government of Tamil Nadu and AICTE, New Delhi. The college is affiliated to Anna University, since 2002 and is accredited by NAAC with A Grade. The courses are accredited by NBA. The college offers 13 Undergraduate and 5 post graduate programmes covering Engineering & Technology and Management.

The college has strong interaction with reputed national and international organizations. The college has obtained ISO 9001 : 2015 certification from TUV South Asia.

ABOUT THE DEPARTMENT

Easwari Engineering College has established the Department of Biomedical Engineering in the year 2020. Department of Biomedical Engineering offers UG in Biomedical Engineering. Faculty members are doing in house research and publishing papers in peer reviewed international journals and conferences. Our faculty members have the following areas of expertise such as: Biosignal and Medical image processing, Biomedical instrumentation and Nano Technology.

Biomedical engineering (BME) is the application of engineering principles and methods to solve medical and biological problems. It also Integrates electrical, electronics, mechanical, chemical and life science principles in the development of new healthcare technologies and systems. The Biomedical Engineering course includes the study of Biology, Physics, Chemistry, Life Sciences, Biotech, Calculus, Materials Science, Principles of Design.

ABOUT AICTE-ATAL FDP

The objectives of **AICTE Training and Learning (ATAL)** Academy are: To set up an Academy which will plan and help in imparting quality technical education in the country and to support technical institutions in fostering research, innovation and entrepreneurship through training. To provide a variety of opportunities for training and exchange of experiences, such as workshops, Orientations, learning communities, peer mentoring and other faculty development programmes. To support policy makers for incorporating training as per requirements. The Faculty Development Programme (FDP) intends to provide financial assistance to facilitate up-gradation of knowledge, skill and intends to provide opportunities for induction training to teachers.

COURSE CONTENTS

The Programme is designed to cover the following topics in depth by expert lectures and Industrial visits.

- ▶ Biomedical images and signal processing
- ▶ Neural Network algorithms and its types
- ▶ Supervised , semi- supervised learning techniques

OBJECTIVE OF THE FDP

Artificial intelligence is having a huge impact on various fields of life as the expert systems are widely used to solve complex problems in various areas. One such area is Healthcare. Modern medical data provides an increasing number of features derived from different types of analysis, including artificial intelligence. These features are most often used for a variety of analysis including fuzzy logic, evolutionary calculations, neural networks. Data processing, appropriate selection of features and artificial intelligence methods can support medical diagnostics. This area has been in recent years the subject of many research papers and research grants. Consequently, this course is devoted to the subject of artificial intelligence, in its broadest sense, in biomedical engineering with particular emphasis on medical imaging, records interpretation, and other time-series data. We hope this course will be a valuable supplement to the knowledge of new artificial intelligence methods and its applications in new areas of biomedical field.

REGISTRATION DETAILS

- No Registration Fee
- No Accommodation
- Maximum 50 participants may be allowed to attend offline FDP on a first come first serve basis.

ELIGIBILITY

Faculty from AICTE approved Engineering Colleges, professionals from Industry, Government departments and R & D organizations.

IMPORTANT DATES

Last date for registration : **December 10, 2023**

Notification of selection : **December 15, 2023**

HOW TO APPLY

Registration is required for participating in this course. Applicants can fill the registration form only in online mode available at

<https://atalacademy.aicte-india.org/login>

CHIEF PATRONS

Dr. T. R. Paarivendhar, Founder Chairman

Dr. R. Shivakumar, Chairman

SRM Group of Institutions, Chennai Ramapuram & Trichy

Mr. S. Niranjan, Co – Chairman

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RESOURCE PERSONS

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Dr. R. Parthasarathy, Assistant Professor

Department of ECE, NIT Trichy

Dr. S. Poonguzhali, Professor, Centre for Medical Electronics, Department of ECE, CEG Campus, Anna University.

Dr. J. Jesu Vedha Nayahi, Senior Assistant Professor, Department of CSE, Anna University Regional Campus – Tirunelveli

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Dr. V. Sathiesh Kumar, Assistant Professor, Department of Electronics, MIT-Anna University Chrompet Chennai

Dr. S. RamPrabhu, Assistant Professor, Department of ECE, MIT Chrompet

Dr. A. Gowri, Assistant Professor, ECE Department IIITDM, Kancheepuram.

Dr. G. Suresh, Assistant professor, Department of Radiodiagnosis, Stanley Medical College, Chennai

Dr. U. Snehalatha, Professor, Department of Biomedical Engineering, SRMIST, Kattankulathur.

Dr. E. Kaliappan, Prof. & Head, Department of Electrical & Electronics Engineering, Easwari Engineering College

Dr. Sapthagirivasan, Manager, Medical Devices and Healthcare Technology, Cape Gemini

Dr. Lalitha Venugopalan, Team Lead, Radiometer Medical, Bangalore

Mr. K. V. Praveen Kumar, Founder and Managing Director KV's Biomedical Company