## Sponsorship Certificate

Certified that

Mr/Mrs/Prof./Dr.............................................. is an

employee of this institution and is hence

hereby sponsored for APJAKTU sponsored

Faculty Development Programme on

"Data Analytics for the new industrial era:

Application of ML in Industry 4.0" at TKM

College of Engineering, Kollam from 23rd –

28th January 2023.

Mr./ Mrs./ Prof. /Dr. .......................................... will be
permitted to attend the program if selected.

Name and Signature of
the Head of the Institution
with college seal

Place:

Date:

| Important Dates | |
|---|---|
| Last Date for Application | 15/01/2023 |
| Acceptance Notification | 18/01/2023 |

## How to apply?

**https://www.yepdesk.com/fdp-i4-0-csetkm**

Use the above link or Scan the QR code

Fill the registration details and Upload the sponsorship certificate from the head of the institution.

Hard copy of the registration form has to be submitted at the time of physical registration.

NB: Registration payment of Rs. 500/- is **REFUNDABLE** on the completion of the course. Applicants are requested to give "Fee for FDP I4.0" followed by their 'Name' in the remarks column.

## Who can Apply?

The course is open to Faculty members of Engineering colleges, Research scholars, Professionals from Research organisations and industries. The maximum number of seats is limited to 30.

## ADDRESS FOR COMMUNICATION

### Dr. Aneesh G Nath (Coordinator)

Associate Professor
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### Prof. Shyna A (Coordinator)

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## TKM COLLEGE OF ENGINEERING
## KOLLAM, KERALA – 691 005

APJAKTU Sponsored FDP on
# Data Analytics for the new industrial era: Application of ML in Industry 4.0

## January 23–28, 2023

*Coordinators:*
Dr. Aneesh G Nath
Prof. Shyna A

*Organised by:*
Department of Computer Science and Engineering

Department of Computer Science & Engineering
T.K.M. College of Engineering
Kollam, Kerala– 691 005

## About the Programme

Industry 4.0 (I4.0), the fourth industrial revolution, is unquestionably being driven by data scientists and researchers. It offers a broad field of multidisciplinary research that brings together computer scientists with Electrical, Electronics, and Mechanical engineering specialists. However, there is still a lot of untapped potential for study in I4.0 with Artificial Intelligence, which can change the data-driven research arena.

This course is designed in an interdisciplinary manner dealing with the practical research aspects of I4.0 and introducing real-world research problems. It enables the teaching and research communities to tackle research challenges and offer workable solutions. The course facilitates the use of stream data (from industrial, medical, and robotics domains) and various ML models to deal with them, with hands-on sessions using public and novel datasets. The sessions also delve into the Industry 5.0 (I5.0) transformation by introducing the most cutting-edge Explainable AI (XAI) philosophy. The course ultimately aims to bridge the gap between laboratory solutions and practical industry-demanding solutions in light of Industry 4.0.

### Major Topics Covered

- Insights into Data analytics, and Industry 4.0
- The mathematical perspective of Machine Learning
- Data Analytics research areas of Industry 4.0
- Introduction to industrial data and stream data analysis with ML
- Industrial IoT (IIoT) framework
- Data analysis in Robotics, Big Data/Cloud Data, and Medical Data.
- Fault Detection and Predictive analysis using AI: Research Problems
- Hands-on training in Tools and packages for Predictive analysis with ML
- A foreword to Industry 5.0
- Explainable AI: The roadway to I5.0

## About the College

Thangal Kunju Musaliar College of Engineering (TKMCE) is one of the premier institutions of national and International repute, established in 1958 as the first grant-in-aid Engineering College in the State of Kerala by the late. Janab A Thangal Kunju Musaliar, an Industrialist, Philanthropist and a great visionary.

The college became the first government-aided engineering college of the State to be conferred autonomous status by UGC from the academic year 2022-23, offering UG programs in eight branches of engineering and architecture, ten PG programs and an MCA program. The College is an approved research center of APJAKTU for all streams and an approved QIP Centre of Ministry of Education (formerly, MHRD) for Mechanical and Civil Engineering. There are 200 plus faculty members and 150 technical and ministerial staff in the college. The college has the highest annual student intake (more than 1000) among all peer level institutions in the state. The college carries NBA accreditation to all B.Tech programs and two M.Tech programs. The NAAC has accredited the college with 'A' grade and in NIRF, the college has been included in the band of 201-250 in the year 2019.

## About the Department

The Department of Computer Science & Engineering established in the year 1984 was the first CSE department introduced in Kerala. For last four decades, the department has been imparting state-of-the-art education, training and research in the field of computer science and allied areas and regularly producing outstanding professionals. The department offers B.Tech, M.Tech and PhD programmes with excellent infrastructure and well qualified and experienced faculty. The UG Programme of the Department is accredited by National Board of Accreditation (NBA) for 3 years in 2022, and has an intake of 120 students. Research activities are carried out in the department in various fields like Theoretical Computer Science, Data Analytics, Networking, Remote sensing, and Biomedical Image Processing.

APJAKTU Sponsored FDP on
## Data Analytics for the new industrial era: Application of ML in Industry 4.0
### January 23–28, 2023

### Registration Form

Name (In block letters):
Gender:
DOB & Age:
Designation:
Experience: Teaching- Industry-
Qualification:
Department:
Institution:
Address:

Contact No:
Email:
Food Preference: Veg./Non Veg
Hostel accomodation required : Yes* / No
*A limited number of participants can be accommodated at college hostels with additional payment as per hostel norms.

## DECLARATION

The information furnished above is true to the best of my knowledge and belief. I agree to abide by the rules and regulations of the programme and shall attend the course for the entire duration. I also undertake the responsibility to inform the coordinator, in case I am unable to attend the programme.

Place:

Date:

Signature of the Applicant: