



# TKM COLLEGE OF ENGINEERING KOLLAM, KERALA - 691005



TEQIP II sponsored  
Faculty Development Program  
On

## “Recent Advances in Computational Fluid Dynamics: Methods and Applications”

From 30/01/2023 to 04/02/2023 (6 days)

Organized by The Department of Mechanical Engineering

Computational Fluid Dynamics (CFD) is the analysis of fluid flows using numerical solution techniques. Aerodynamics and hydrodynamics are two engineering disciplines where CFD analyses are routinely used to predict quantities like lift and drag or field properties like pressure, velocity and temperature. You can examine intricate issues involving fluid-fluid, fluid-solid, or fluid-gas interaction using CFD. The physical laws that governs any transport phenomenon is in the form of partial differential equations. These laws are converted into algebraic equations by sophisticated CFD solvers, which then solve these equations numerically

This FDP will provide a thorough introduction to the theoretical underpinnings and the different applications of CFD in both industry and research. The following topics are among those covered:

- Theoretical background of CFD
- An insight into industrial flow modelling in CFD
- Role of CFD in modern automotive industry
- Demonstration of meshing and solution in Ansys Fluent
- CFD Analysis of non-conventional Fuels
- CFD for Renewable energy
- CFD for thermal energy storage systems
- Essentials of grid quality and practices
- Demonstration of OpenFOAM

Use the link to register for the FDP.

<https://forms.gle/SruaXdZZHMFtyegz8>

Registration fees: Rs. 250

Who can apply?

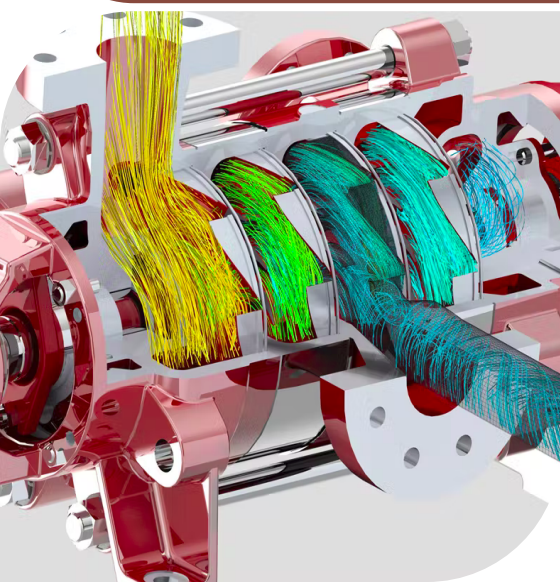
This course is open to faculty members of Engineering colleges, Research scholars, Professionals from Research organizations and industries.

Scan the  
QR code to register



Reflecting a commendable legacy of more than 6 decades, TKM College of Engineering, situated in the cashew hub of Kerala, City of Kollam; is the first Government-aided engineering college in Kerala. It is ideally located, in Karikode, on the Kollam- Chenkotta road, about 5 kilometers from the heart of the city. The campus, a distinctive landmark that cuts above the rest is built in the aesthetic Indo Saracenic architectural style with mughal influence.

The college is the first and foremost institution for technical education, run by the TKM College Trust, headed by Janab Shahal Hassan Musaliar. The foundation stone of the college was laid in the year 1956 by Dr. Rajendra Prasad, the first President of Independent India. The college was formally inaugurated by Prof. Humayun Kabir, the then Minister for Scientific and Cultural Affairs, Govt. of India, on 3rd July, 1958.





## About the Department

The Department was established in 1958 and, with a legacy of 60 plus years, it has shaped thousands of mechanical engineers till this day. The department offers two undergraduate, three postgraduate and Ph.D. programmes. The department is committed to accomplishing its vision of 'excellence in mechanical engineering with a perspective of sustainable development', through its programmes. The department has been continuously adapting itself to imbibe the latest industry-driven knowledge and skills for its students through industry-based curriculum, innovative teaching-learning practises, enriched student-faculty relationship, close academia-industry linkages and research. The state-of-the-art infrastructure of the department including well-developed laboratories for core courses, along with laboratories where students can learn modern software related to drafting, modelling and analysis, which are nowadays added skills to many industries. Additionally, considering the current demand for skilled engineers in industry, the students have special facilities for advanced skill acquisition like FAB-Lab, Language Lab, Central Computing Facility, Robotics Centre and so on.

## Sponsorship Certificate

Certified that Mr./Mrs/Dr. .... is an employee of our institution and is hereby sponsored for the TEQIP-II sponsored Faculty Development Programme on 'Recent Advances in Computational Fluid Dynamics: Methods and Applications' at TKM College of Engineering, Kollam - 5.

Mr./Mrs/Dr..... will be permitted to attend the full programme if selected.

Place:.....  
Date:.....

Name and Signature of  
the Head of the Institution

### College Seal

For registration, fill the details in google form.  
Duly signed sponsorship certificate need to be uploaded.  
Payment has to be remitted on the account number:  
Account number : 67347487491  
Account holder : Head of the Department,  
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IFSC Code : SBIN0070870  
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