

Three Day Workshop on  
*Advanced Computational Fluid  
Dynamics (ACFD14)*  
Dates: August 14-16, 2014

**Registration Details**

Course Registration Fees

Industry participants	Rs. 15,000
Academia	Rs. 10,000
Research Scholars / Students	Rs. 5,000

Fill in the registration form and forward it to the following address with Demand Draft for the fees drawn in favour of ACFD 2014 payable at Bangalore

ACFD 2014  
Department of Mechanical Engineering  
PES University  
100 Feet Ring Road , BSK 3rd Stage,  
Bangalore - 560085  
Email: [acfd2014@gmail.com](mailto:acfd2014@gmail.com)

Last Date for Registration:  
**31<sup>th</sup> July 2014**  
For more information, please visit:  
**[www.zetacomp.com](http://www.zetacomp.com)**  
**[www.pes.edu/acfd14](http://www.pes.edu/acfd14)**



Organising Committee

Patrons **Dr. M R Doreswamy**

MLC , Karnataka , Chancellor, PES University

**Prof. D Jawahar**

CEO , PES Institutions

Pro-Chancellor , PES University

**Prof. Ajoy Kumar**

COO, PES Institutions

**Dr. K N B Murthy**

Vice-Chancellor, PES University

Chairman **Dr. K S Sridhar**

Professor and Head

Department of Mechanical Engineering

Convener **Dr. V Krishna**

Professor, Thermo-Fluids Engineering

Department of Mechanical Engineering

**Resource Person - Prof. P Nithiarasu**

Prof. P Nithiarasu has over twenty years of experience in developing CFD algorithms, their implementation and problem solving. He has been working on CFD projects funded by NASA, EPSRC and other government organizations and industry. The areas of expertise of Prof Nithiarasu includes compressible and incompressible flows, turbulent flows, FSI, biomedical flows and heat transfer. He has been teaching a graduate course on CFD in Swansea for more than twelve years. Author of two monographs in the area of fluid flow and heat transfer, Prof Nithiarasu has published more than 300 articles in journals and proceedings. Prof. Nithiarasu is the founding Editor-in-Chief of the International Journal for Numerical Methods in Biomedical Engineering. He serves on the editorial boards of International Journal for Numerical Methods in Fluids, ASME Applied Mechanics Reviews and few other journals. Prof. Nithiarasu was appointed twice as a distinguished foreign scientist of CSIR, India. He is a winner of ECCOMAS young scientist award and Zienkiewicz silver medal of ICE, London.

E-mail: [P.Nithiarasu@swansea.ac.uk](mailto:P.Nithiarasu@swansea.ac.uk)

Phone : +44 (0)1792 513267

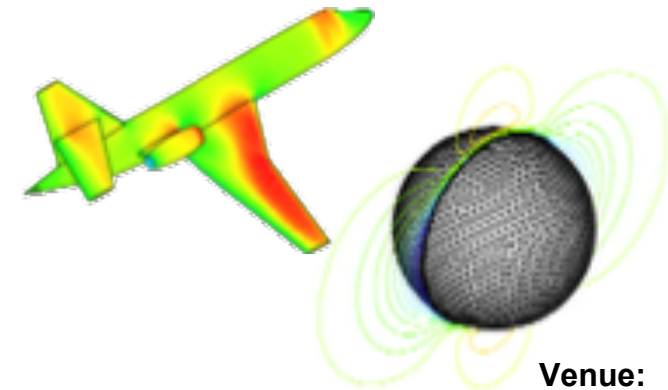
Website:

<http://www.swansea.ac.uk/staff/academic/engineering/nithiarasuperumal/>

Three Day Workshop on  
**Advanced Computational  
Fluid Dynamics (ACFD14)**

by

**Prof. P Nithiarasu**  
Head of Zienkiewicz Centre for  
Computational Engineering  
College of Engineering  
Swansea University, Swansea  
United Kingdom



**Venue:**

MCA Seminar Hall, MRD Block,  
PES University  
100 Feet Ring Road, BSK 3rd Stage  
Bangalore 560085  
[www.pes.edu](http://www.pes.edu)

Dates: August 14-16, 2014  
Time: 9:00 am to 5:00 pm

Program organised by:  
Department of Mechanical Engineering  
PES University



# About PES University

PES University, a state private university, was established in November 2013. The University formerly known as PES Institute of Technology (PESIT - established in the year 1988) is the flagship of the PES (Peoples' Education Society) Group of Institutions and is located at the campus where PESIT was located – 100 feet Ring Road, BSK 3<sup>rd</sup> Stage, Bangalore 560085. PES is ranked No.1 in Karnataka (Source: DataQuest) and is one of the top educational institutions in India. The University combines years of experience in education with a unique curriculum, world-class infrastructure and a committed, responsive faculty that includes over 92 PhDs, besides many others who are actively pursuing their doctoral programs. PES University has a strong focus on engineering and offers Bachelor's and Master's Degrees in Mechanical Engineering, Electronics & Communication Engineering, Computer Science & Engineering, Electrical & Electronics Engineering, Civil Engineering and Biotechnology, in addition to PhD and MSc. Engg. by research. PES University is furthering and strengthening the academic and research collaborations established by PESIT with University West – Sweden, Bournemouth University – UK, Maastricht University -Netherlands, National University of Singapore, Swansea University - UK, Old Dominion University - USA, University of Wyoming - USA, Dalhousie University - Canada and others. Companies associated with PES include BOSCH, Flowserve, Kennametal, L&T, Toyota, Volvo, Mercedes Benz, Ashok Leyland, Infosys, Wipro, TCS, Accenture, Amazon, CISCO, Microsoft, Mphasis, NDS, Modelytis, Nanocell, National Instruments, NetApp, Nokia, Novell, Oracle, Perot System and many others. What sets the experience at PES apart, is a unique 360 degree approach that builds synergy between education and industry and ensures that all programs are completely in sync with the contemporary, economic context.

## About the course

The main task of a CFD engineer or scientist is using a readily available software to solve problems or developing a code to test new algorithms. To complete the mentioned task, a fundamental understanding of formulating CFD problems is essential. This includes correct representation of initial and boundary conditions, sanity and convergence checks and meshing related issues. In addition to establishing basics of CFD, this workshop will also discuss some practical knowledge essential for both practicing engineers, graduate students and scientists. The course will cover aerospace flows, incompressible flow problems, heat transfer and biomedical flow problems. Participants will have opportunities to discuss their problems of CFD with the instructor.



## Purpose

This workshop is designed to deliver essential CFD knowledge to practising engineers and scientists. In addition to reminding the participants of the basics of CFD, interesting applications and information about current state of the art will also be discussed.

## Benefits

A basic understanding of how CFD tools are developed and used.

Fundamental understanding of underlying spatial and temporal discretizations.

Understanding how CFD problems are formulated and initial and boundary conditions are determined.

A clear overview on current state of the art and limitations.

A better perspective on problem solving and programming.

## Who should attend ?

- Practicing engineers from industry
- CFD researchers in academia
- Scientists and Research engineers
- CFD teachers and consultants
- CFD Software developers and users

Basic understanding of fluid flow and engineering mathematics is a prerequisite for participating in this workshop.

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## Registration Form

Name: .....

Designation: .....

Organization: .....

Address: .....

Telephone: .....

E-mail: .....

Payment amount: .....

DD number: ..... Date: .....

Drawn in favor of ACFD 2014 payable at Bangalore.

Bank: .....

Signature: .....

