



**Universität Stuttgart**

Institut für Chemische Verfahrenstechnik

**Lecture Announcement:**

# **Industrial Application of Computational Fluid Dynamics**

**Tuesdays  
08:30 – 13:30  
Room 4.014  
Böblinger Str. 78**

## **Scheduled Lecture Sessions:**

- 29.10.2019 08:30 – 13:30
- 05.11.2019 08:30 – 13:30
- 12.11.2019 08:30 – 13:30
- 19.11.2019 08:30 – 13:30
- 26.11.2019 08:30 – 13:30
- 03.12.2019 08:30 – 13:30

The lecture is primarily aimed at students in the M.Sc. Process Engineering curriculum and similar, as well as PhD students

**Full details on ECTS /  
curriculum crediting to follow!**

**Further Information:**

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and on [www.icvt.uni-stuttgart.de](http://www.icvt.uni-stuttgart.de)**

## **Syllabus:**

- What is CFD? Why use CFD?
- CFD Analysis Process
- Equations of Fluid Mechanics
- Turbulent Flows - DNS, LES, RANS
- Multiphase Flows
- Using a Commercial Software - ANSYS FLUENT
  - Prerequisites
  - Problem Description
  - Creating and Meshing the Geometry
  - Setup CFD Simulation and Domain
  - Setup Physics
  - Solvers
  - Post-Processing

## **Lecturer:**

**Dr. Mostafa S. Shadloo (INSA Rouen)**

- Associate Professor at National Institute of Applied Science (INSA) Rouen, France (since 2015)
- Fields of Interest: Hydrodynamics, Turbulence, Multi-phase, Multi-physics Fluid Flows and Heat Transfer

