

# Curriculum vitae

## PERSONAL INFORMATION N MOHAMMED ASHERUDDIN

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## WORK EXPERIENCE

Aug 2018–Present

### Research Scholar

Centre for Sustainable Technologies (CST), Indian Institute of Science (IISc), Bangalore.

**Working Dissertation:** *Experimental and numerical studies on thermochemical conversion of solid fuels - towards optimization of packed bed gasification units*

#### Publications:

[Influence of gas and solid phase thermo-physical and transport properties on the thermo-chemical conversion of char in reacting media: intra-particle, microscopic and temporal mass loss-based sensitivity analysis](#)

Combustion Theory and Modelling, 25(4), 2021.

N. Mohammed Asheruddin, Anand M Shivapuji, Dasappa Srinivasaiah

[On the mathematical model simplification using constant Lewis number - Impact assessment on heterogeneous char conversion process](#)

XIII International Conference on Computational Heat, Heat, Mass and Momentum Transfer (ICCHMT 2021), Paris, France.

N. Mohammed Asheruddin, Anand M Shivapuji, Dasappa Srinivasaiah

Jun 2017–Jul 2018

### Project Assistant

Centre for Sustainable Technologies (CST), Indian Institute of Science (IISc), Bangalore.

- Numerical simulation of the experiments. (Computational programming)
- Preparing, conducting and recording the outcome of experiments.
- Conducting literature and database searches.
- Contribute to the production of research reports and publications.
- Participate regularly in group meetings and prepare and deliver presentations to research team.
- Assist with supervision of undergraduate student projects.
- Continually update knowledge and understanding in field or specialism to inform research activity.

## EDUCATION AND TRAINING

Aug 2015–Jun 2017

### Master of Technology (M.Tech) in Thermal Power Engineering

Nitte Meenakshi Institute of Technology (NMIT), Bangalore.

CGPA – 8.9

Aggregate Percentage – 81.52 (First Class with Distinction, University Gold Medal)

#### Project – "Numerical Investigation of Thermal Conversion of Biomass Particles"

Combustion, Gasification and Propulsion Laboratory (CGPL), IISc, Bangalore.

- Development of an in-house C++ code to numerically compute the thermo-chemical conversion processes of a biomass particle.
- Given the size and conditions of the reacting environment the code computes the conversion time, transient changes in mass of particle and gas composition.

Jul 2011–Jun 2015

### Bachelor of Engineering (B.E) in Mechanical Engineering

East Point College of Engineering and Technology (EPCET), Bangalore.

CGPA – 7.8

Aggregate Percentage – 70.2 (First Class with Distinction)

#### Final year group project - "Electro Pneumatic Climbing Robot"

- A robot working on principles of Pneumatics and Electro-Pneumatics; capable of adhering and maneuvering on vertical and inclined surfaces.
- It finds new avenues for various applications like Welding robot, Cleaning and Inspection and Surveillance.
- Awarded Third Position in the national level engineering competition Quest Ingenium 2015.

- Jun 2009–Jul 2011 **Pre-University (12<sup>th</sup> Standard)**  
Kendriya Vidyalaya MEG and Centre (CBSE), Bangalore.
- Physics, Chemistry, Mathematics, Biology
  - Overall Percentage – 61.6
- Jun 2009–Jul 2011 **Matriculation (10<sup>th</sup> Standard)**  
Kendriya Vidyalaya MEG and Centre (CBSE), Bangalore.
- Overall Percentage – 78.6

## CERTIFICATION

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3 Jan 2016–25 May 2016 **Course – Numerical Grid Generation and Fluid Flow Computations**  
Indian Institute of Science (IISc), Bangalore.

- Grading - A
- Institute - Indian Institute of Science (IISc), Bangalore.

19 Oct 2014–21 Oct 2012 **Training - Basic Hydraulics and Pneumatics**

Bosch Rexroth Centre of Competence in Automation Technology, Mysore.

- Development of pneumatic and hydraulic circuits.
- Practical assembly of valves, actuators and switches based on circuits to perform various applications.
- PLC programming for automation of pneumatic circuits.

04 Jun 2014–22 Jun 2014 **Internship and Practical Training**

Aircraft Research and Design Centre, Hindustan Aeronautics laboratory (HAL), Bangalore.

- Programming CNC Milling Centre and Turning Centre using FANUC Language to perform various machining operations.
- Meshing of leading edge slats using a hexahedral mesh in Ansys.

## Workshops

- Piping Design and Applications [May, 2014.]
- MATLAB Tools for Analysis and Computations in Engineering [October, 2015]

## SOFTWARE SKILLS

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**Modelling Software's:** Solid Edge, Catia.

**Analysis Software's:** Ansys – ICEM CFD, Fluent, Festo FluidSim.

**Programming Languages:** C, C++, FORTRAN, Matlab, and Fanuc.

**Office Suites:** MS – Word, Excel, PowerPoint.

## PERSONAL SKILLS

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**Languages Known** English, Hindi, Urdu, Tamil, Kannada.

**Key Skills** Consistently demonstrate leadership skills, sound judgment, decision-making capability, initiative and resourcefulness in responding to job challenges. Able to quickly grasp new technical information and communicate that information to others in an understandable manner. A conscientious team player with excellent problem solving and troubleshooting skills.