



## WORK OFFER

Ref. No. IN-2020-32015-MU

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### Employer Information

**Employer:** Manipal Institute of Technology  
Instrumentation and Control Engineering  
1st Floor, Academic Block-4, MIT, Manipal  
576104 Manipal  
India

**Website:** <http://www.manipal.edu>

**Location of placement:** Manipal  
**Nearest airport:** Mangalore  
**Working hours per week:** 40.0  
**Working hours per day:** 8.0

**Number of employees:** 500  
**Business or products:**

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### Student Required

**General Discipline:** 14C-ELECTRICAL AND ELECTRONICS ENGINEERING  
14D-MECHANICAL ENGINEERING

**Field of Study:** 14.1099-Electrical, Electronics and Communications Engineering, Other.  
14.4201-Mechatronics, Robotics, and Automation Engineering.

**Completed years of study:** 3

**Student status requirements:** Required during the internship.

**Language required:** English Excellent

**Required Knowledge and Experiences:**

Soft sensor prediction using Partial Least Squares (PLS) method

**Other requirements:**

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### Work Offered

The accurate measurement of final product quality for any process is crucial for its economic as well as financial benefits. There are few variables that are concerned with the quality of the product which includes concentration, molecular weight and viscosity. However, measuring these variables in real-time is a challenging task owing to the unavailability of such hardware sensors or due to the expensive cost of such related sensors. The measurement of these challenging variables is made easy by the use of software sensors. Soft sensors have the ability to predict the hard to measure variables using easy to measure variables through software algorithms. Among the many methods found in the literature, Partial Least Squares (PLS) is the most popular choice owing to its excellent prediction capability in the multi-variate process. In the present work, the concentration of a chemical reactor is predicted with the help of easily measured primary variables like pressure, flow and temperature.

**Number of weeks offered:** 8 - 10

**Within the months:** 01-JUN-2020 - 15-NOV-2020

**Or within:** -

**Company closed within:** -

**Working environment:** Research and development

**Gross pay:** 7000 INR / Month

**Deduction to be expected:** 15%

**Payment method / time of first / payment:**

**Latest possible start date:**

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### Accommodation

**Canteen at work:** Yes

**Expected type of accommodation:** Student dormitory

**Accommodation will be arranged by:** IAESTE India LC Manipal

**Estimated cost of lodging:** 0 INR / Month

**Estimated cost of living incl. lodging:** 4500 INR / Month

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### Additional Information

For more information about the local committee: <http://explore.iaeste.in/mu>

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### Nomination Information

**Deadline for nomination:** 15-MAR-2020

**Date:** 07-FEB-2020

**On behalf of receiving country:**

Siddharth Chadha