

# Asim Kumar Mahakul

Expert in Scientific Instruments

asimkumar2222@gmail.com

---

## Summary

Scientific Instrumentation

Hardware and Software Design of Impedance Spectroscopy Device for i-Tounge at CSIO

Webdesign for PHP MySQL based CMS

M.Tech. Instrumentation from National Institute of Technology(NIT) Kurukshetra

M.Sc. electronics from Sambalpur University

## Specialties

Embedded Systems, PC Interfacing and Data Acquisition

---

## Experience

### **R&D Engineer at Spectra Precision**

March 2012 - Present (2 years 4 months)

Spectra Precision deals with Precision agrielectronic Products. The current Project is Laser Ground Leveling. This work is divided into three parts transmitter receiver and controller. Now i have completed on controller only.

Here i am also involved in production of the developed system.

### **Assistant Professor at NIST Berhampur, Orissa**

September 2011 - March 2012 (7 months)

B.Tech. Classes:

- 1.Biomedical Instruments
- 2.Analytical Instruments
- 3.MATLAB Beginners

### **M.Tech. Trainee at Central Scientific Instruments Organisation**

January 2011 - September 2011 (9 months)

Project work for M.Tech. Thesis on impedance tongue

---

## Projects

### **Control Unit For Laser Based Levelling System**

March 2012 to Present

Members:Asim Kumar Mahakul

This is part of Laser Based Ground levelling System. This uses an 8 bit atmel microcontroller as the processor, inputs are taken from the receiver unit through a 4 Wire current Signals (LR410 Trimble Navigations). Depending upon the inputs the control unit produces PWM signals to drive the hydraulics.

### **Universal Data Logger**

October 2012 to Present

Members:Asim Kumar Mahakul

A universal Data Logger with a facility for interfacing of environmental Sensors. The device has options for manual data collection and time triggered data collection. A 4 line LCD display with a 6 page easy interface for Data Save Review and Edit

### **Installation of Scanalyzer**

February 2013 to Present

Members:Asim Kumar Mahakul

Scanalyser is a Proprietary product of Lemnatec GmbH used for plant phenomics analysis. My job is to configure all the Sensors and Fieldbus Network. Test all the Inputs and outputs to/from the sensors/actuators at the Master unit (Control PC). I had good experience with

WAGO Ethernet based IOs

WAGO Fieldbus IOs (Speedway)

Festo pneumatic controllers

Lantronix VCP (i have tried this with ATMEGA16 before this)

RFID Readers

Networked Process Pumps

IP based Cameras

---

## Test Scores

### **GATE-09 (EC)**

March 2009 Score:449

Score 449 out of 1000, 94.4 percentile, 36 Marks

---

## Courses

## **Master of Technology (M.Tech.), Instrumentation Engineering**

National Institute of Technology Kurukshetra

Instrumentation Systems	E-651
Digital Electronics and Instruments	EC-691
Transducers	Ph-651
Signal Processing	Ph-652
X-rays and Bio-medical instrumentation	Ph-658
Instrumentation Laboratory	Ph-681
Instrumentation Manufacturing Techniques	M-651
Materials Characterization Techniques	Ph-653
Analytical Instrumentation	CH-651
Electro Optical Instrumentation	Ph-655
High Vacuum Techniques	Ph-656
Nuclear Instrumentation	Ph-657
Remote Sensing	Ph-659

---

### Languages

<b>English</b>	(Professional working proficiency)
<b>Hindi</b>	(Native or bilingual proficiency)
<b>Odiya</b>	(Native or bilingual proficiency)

---

### Skills & Expertise

**Microcontrollers**  
**Analog Signal Processing**  
**Switchers**  
**DC-DC**  
**Spectroscopy**  
**Embedded USB Host**  
**Voltammetry**  
**SMPS**  
**PHP**  
**CSS**  
**cPanel**  
**Linux Server**  
**Java**  
**Android SDK**  
**MSP430**  
**ADUC**  
**Atmel AVR**  
**USB**  
**Embedded Systems**

**Electronics**  
**Embedded Software**  
**Keil**  
**Matlab**  
**Embedded C**  
**Orcad**  
**Sensors**  
**Labview**  
**C**  
**Instrumentation**  
**Signal Processing**  
**WordPress**  
**STM32F4**  
**Codesourcery**  
**Vinculum-II RTOS**  
**R&D**  
**Circuit Design**

---

## Education

### **National Institute of Technology Kurukshetra**

Master of Technology (M.Tech.), Instrumentation Engineering, 2010 - 2011

### **Sambalpur University**

Master of Science (M.Sc.), Electrical, Electronics and Communications Engineering, 2006 - 2009

---

## Interests

PC interfacing and microcontrollers,  
Data acquisition and analysis, Pattern recognition,  
web hosting and web designing

---

# Asim Kumar Mahakul

Expert in Scientific Instruments

asimkumar2222@gmail.com

---



[Contact Asim Kumar on LinkedIn](#)