



**AICTE (QIP) Sponsored
Short Term Course On**



Recent Advancements in Industrial Instrumentation and Signal Processing Techniques (RAIS, 2017)

August 21st -25th, 2017



**Organized by
Mechanical Engineering Discipline
PDPM-Indian Institute of Information
Technology, Design & Manufacturing,
Jabalpur - 482005, India**

Course objective

Industrial instrumentation and signal processing techniques involve measurement and post processing of signals acquired from machinery using sensors. Aim of this course is to provide the participants an insight into various aspects of the applications of sensors and instrumentation in health assessment of electrical motors, rotating machinery and I.C. Engines etc. Further, remote access of data acquisition in manufacturing process and its real time control through hands on experience using virtual instrumentation is also focused in this short term course. This course provides a forum for faculty, research scholars, and maintenance managers in industry and R&D experts to formulate the long term research goals in the area of instrumentation techniques which are used in academic institutes / industry / research laboratory to enhance the knowledge.

Intended Participants

(Who can attend?)

The course is open for mechanical, electrical, electronic faculty of engineering colleges, practicing engineers from Industry and scientists from R & D organizations, those who are interested / working in the field of measurement techniques, condition monitoring, sensors, and data acquisition system for various industrial applications. The course is equally suited for professionals and graduate students desirous of working in the area of application of signal processing, mechanical and electrical measuring systems.

QIP Candidates: The teachers of the AICTE approved Engineering Colleges are eligible under this scheme. Faculty members from the streams of Mechanical, Electrical, and Electronics & Communication Engineering can apply under this program. The seats are limited, which would be filled on first come first serve basis and candidate's field of research interest.

Course Contents

- Introduction to measurement techniques on various industrial applications
- Material deposition process in industrial applications
- Measurement and analysis of process parameters in machining
- Advanced measurement techniques using sensors (Real time applications)
- LabVIEW programming and its applications for processing of machinery signals (induction motors, gears and bearings) - Practical session
- Signal processing techniques using MATLAB – Practical session
- Temperature measurements - Practical session using LabVIEW
- Remote Access and Real Time (RART) Condition Monitoring Process-Practical Session

Course coordinators

1. Dr. H. Chelladurai, Ph.D., IIT Kanpur
2. Dr. M. Amarnath, Ph.D., IIT Madras
3. Dr. K.K. Soundra Pandian, Ph.D., IIT Patna

Faculty

Faculty shall be drawn from various disciplines of IITs, IIITDM Jabalpur, related industries and R&D organizations from different parts of the country.

Registration Procedure

How to apply?

QIP Candidates: Application in the attached form should be sent to the coordinator with a caution deposit of ₹ 1000/- in the form of a demand draft favoring “**QIP PDPM IITDM, JABALPUR**”. The caution deposit fee will be refunded for all QIP participants who attend the course.

The QIP participants will be paid TA/DA by A/C three tier for attending the course. The DA will be paid as per rules, adjusted against boarding and lodging at IITDM Jabalpur.

The selected QIP candidates will be requested to send a refundable caution deposit of ₹ 1000/- to ensure their commitment for participation in the course. This amount will be refundable only to those teachers who attend the course (*please do not send the money until you get selection information through email.*)

For participants from Industries / R&D labs:

The participants can send the filled application form along with appropriate registration fee (mentioned below) using a demand draft in favor of “**QIP PDPM IITDM, JABALPUR**” to the coordinator Dr.H.Chelladurai. The registration fee can also be paid online. The details are given below:

Account Name : QIP PDPM IITDM
Account Number : 50388395415
Bank : Allahabad
Branch : IITDM Jabalpur
IFSC Code : ALLA0212433

Deadlines

Last date of receipt of registration form	July 14 th , 2017
Announcement of the shortlisted candidates	July 21 st , 2017
Last date of submission of DD/online payment	July 31 st , 2017

Travel &Accommodation

Limited accommodation is available in the institute’s hostels on twin sharing basis. A request for accommodation should be sent to the course coordinator via email after getting shortlisted. A confirmation email will be sent to the participants for accommodation in the institute hostels. Bus facility is available to and fro from railway station as per the institute bus schedule timings. All the registered QIP sponsored participants will be provided free course kit, lunch and tea/coffee at the venue during the course.

Accommodation for other delegates would be arranged in the guest house / students hostel of IITDM Jabalpur based on the availability. All the industry, R&D and students participants have to pay the boarding and food charges as per IITDMJ norms.

Course fee

- 1) Students : ₹ 1,000/- (Nonrefundable)
- 2) Academic : ₹ 1,000/- (QIP Institutions candidates - refundable)
- 3) Industry / : ₹ 3,000/- (Nonrefundable) R&D Organizations

The decision regarding the acceptance for the course will be taken by the coordinator after receiving the duly completed application with appropriate demand draft before the below mentioned deadline.

Registration Form:

Short term Course on **Recent Advancements in Industrial Instrumentation and Signal Processing Techniques (RAIS, 2017)**

(August 21st - 25th, 2017)

Name:

Title/Position:

Organization:

Gender: Male / Female

Mailing Address

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Email:

Mobile no.:.....

Areas of interest:

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Accommodation Required: Yes / No

Note: Payment to be sent only after obtaining participation approval through email.

Details of Fee (Demand Draft / Online):

DD No. / Trans. ref. no......

Dated:..... **Amount:**

Bank:..... **Date:**

Participant Signature:

Forwarded by Head of Institution:

Contact details

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