



## Call for Registration and Participation

# Short Term Course On Hands on Workshop on Analog IC Design (July 2-6, 2018)

Course Coordinator  
**Dr. Manodipan Sahoo**  
&  
Course Co-coordinator  
**Dr. Kalyan Koley**

Organized by  
Department of Electronics Engineering

Indian Institute of Technology (Indian School of  
Mines), Dhanbad  
Dhanbad, Jharkhand, India, PIN-826004  
[www.iitism.ac.in](http://www.iitism.ac.in)

### COURSE OVERVIEW

In the past two decades, CMOS technology has rapidly embraced the field of analog integrated circuits, providing low cost, high performance solutions and rising to dominate the market. While silicon bipolar

and III-V devices still find niche applications, only CMOS processes have emerged as a viable choice for the integration of today's complex mixed signal and SOC systems. Analog circuit design has evolved with the technology moving from high voltage, high power small scale analog circuits to low voltage, low power ultra large scale circuits. This course introduces the subject to the budding researchers and faculty members to get a first hand experience to start working in this area.

### Topics to be covered

- ❖ Introduction to Analog IC design
- ❖ CMOS Device Modelling
- ❖ Current Mirrors
- ❖ Single stage amplifier design
- ❖ Differential Amplifiers
- ❖ Operational Amplifier Design
- ❖ Hands on sessions on the above mentioned topics in Virtuoso Environment of Cadence Software.

### ABOUT THE DEPARTMENT

**Department of Electronics Engineering** was formed in 1998. The B.Tech. course in Electronics Engineering has been started in the academic session 1998-1999. Along with the B.Tech in Electronics and Communication Engineering, the department runs B.Tech in Electronics and Instrumentation Engineering, M.Tech in Electronics and Communication Engineering, M.Tech. in RF and Microwave Engineering. The Department also runs Ph.D. programmes. The Department has a history of strong R&D base research activity and it has produced a number of Ph.D. students. It has also published a large number of research papers in foreign and Indian Journals and conferences. Currently IIT (ISM), Dhanbad holds a NIRF rank of 13.

### DURATION

Five days, form 2<sup>nd</sup> -6<sup>th</sup> July, 2018, 4.5 hours every day.

### VENUE

EDC, Indian Institute of Technology (Indian School of Mines), Dhanbad, Jharkhand-826004

### WHO SHOULD ATTEND?

Scholars, pursuing their PhD/M.Phil/Masters program in the area of VLSI Circuits and Systems, Faculty members, Members of Research Organizations, Members of Industrial Organizations having interest in the course topic.

### REGISTRATION/COURSE FEE (NON- REFUNDABLE)

Participants	Programme Fee
Participants from abroad	USD 500
Industry/ Research Organizations	Rs. 20000/-
Academic Institutions (Faculty)	Rs. 12000/-
Academic Institutions (PG students & Research scholars)	Rs. 10000/-

The above registration fee includes charges towards 5-days accommodation in EDC on twin-sharing basis as per availability, registration kit, course material, certificate, 5-days working lunch, tea & dinner.

### HOW TO REACH

Dhanbad is situated in the train route from Howrah to New Delhi. It takes 5-10 minutes to reach IIT(ISM), Dhanbad from Dhanbad Railway station.

## REGISTRATION

1. Available seats: 30 (On first come first serve basis)
2. Fill the Google form:  
<https://goo.gl/forms/l4zoQJ5oHj7k8lup2>  
By 31<sup>st</sup> May, 2018.
3. Only the selected candidates need to pay the registration fee after intimation of selection on 4<sup>th</sup> June, 2018.
4. Please fill up the Google form for Course registration after intimation of selection.  
<https://goo.gl/forms/G8Qe91A5WqeN09z92>

One can also send the scanned copy of registration form alongwith fee receipt to the co-ordinator at [manodipan@iitism.ac.in](mailto:manodipan@iitism.ac.in)

### Important dates:

Submission of application: 31/05/18

Intimation of selection: 04/06/18

Last date of fee payment: 08/06/18

Confirmation to participants: 11/06/18

The course fees may be paid through the following:

1) **Demand Draft (DD):** DD in favour of "REGISTRAR, INDIAN INSTITUTE OF TECHNOLOGY (INDIAN SCHOOL OF MINES) DHANBAD" payable at Dhanbad.

2) **Electronic Transfer:** Electronic transfer may be done to the following bank details:

i) Name of Bank: Canara Bank

ii) Branch Name: Saraidhela, Dhanbad

iii) Account No: 0986101009746

iv) Account Holder Name: Registrar, IIT(ISM), Dhanbad

v) IFSC Code: CNRB0000986

vi) MICR Code: 826015003

\*\* The course fee is refundable if the course is cancelled for unavoidable circumstantial reasons.

## REGISTRATION FORM

### SHORT TERM COURSE

ON

### "HANDS ON WORKSHOP ON ANALOG IC DESIGN"

2<sup>nd</sup> – 6<sup>th</sup> July, 2018

Organized by

DEPT. OF ELECTRONICS ENGINEERING

INDIAN INSTITUTE OF TECHNOLOGY

(INDIAN SCHOOL OF MINES)

DHANBAD – 826004, JHARKHAND

1. Name : \_\_\_\_\_

(Capital Letters with Surname)

2. Designation: \_\_\_\_\_

3. Organization/Institution: \_\_\_\_\_

4. Corresponding Address : \_\_\_\_\_

5. Phone (Office) : \_\_\_\_\_

(Residence) : \_\_\_\_\_

6. Mobile No. : \_\_\_\_\_

7. Email ID : \_\_\_\_\_

8. Gender (M/F) : \_\_\_\_\_

9. Payment Details: Payment enclosed

(DD No. \_\_\_\_\_ Date \_\_\_\_\_, Drawn from \_\_\_\_\_ Amount \_\_\_\_\_)

Date:

SIGNATURE

## Short Term Course On

# "Hands on Workshop on Analog IC Design"

Duration: 2<sup>nd</sup> – 6<sup>th</sup> July, 2018

Venue: EDC, IIT(ISM) Dhanbad



Organized by

DEPT. OF ELECTRICAL ENGINEERING

INDIAN INSTITUTE OF TECHNOLOGY

(INDIAN SCHOOL OF MINES)

DHANBAD – 826004, JHARKHAND

### PROGRAMME COORDINATORS

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Website: [http://iitism.ac.in/index.php/ece/ece\\_faculty](http://iitism.ac.in/index.php/ece/ece_faculty)