



डी.ओ.ई.ए.सी.सी.

## DOEACC CENTRE CALICUT COURSE PROSPECTUS

CDS/CA/7.5.1/F 40/R0

*Name of the Group:* **Control & Instrumentation**

*Name of the Course:* **PG Diploma in Industrial Automation System Design**

*Course Code:* **PC 100**

*Starting Date:* **14<sup>th</sup> September 2010**

*Duration:* **6 months**

Preamble: Stiff competition, higher quality standards and growing concerns of safety & environmental damage have pushed the Industrial sector to adapt state-of-the-art Automation Techniques for effective utilization of resources and optimized performance of the process plants. Recent trend of merging control systems associated with both factory and process automation demands knowledge from diverse fields. Automation applications span plant automation, discrete and batch process control, embedded machine control and manufacturing production line automation. The industrial automation applications include automation of time critical systems that demand precise real time readings and control. Qualified automation engineers are needed to meet these requirements of designing appropriate automation systems. But, one need to have knowledge of diversified fields such as PC/ PLC based Control, Instrumentation, H/W, S/W, Networking, Industrial AC Drives, Machine Vision, DCS, SCADA/HMI, High speed data acquisition, RTOS etc., to become a successful automation engineer.

Objective of the Course: This course is aimed at making an Engineer with appropriate experience; a qualified designer of Industrial automation systems with the use of PLCs, PACs, Industrial Field Instruments, Industrial PCs, SCADA/HMI, Data-acquisition boards, Machine vision, robots, Microprocessor based instruments, and related Software. The course also includes 1 month industrial oriented project work during which the student will be working on specific assignments of his/her choice.

Outcome of the Course: Qualified automation engineers to meet the requirements of designing appropriate industrial automation systems.

*Course Structure:*

The course consists of the following modules as given in the table below.		
<b>PC100: PG Diploma in Industrial Automation System Design ( 6 months)</b>		
	<b>Sub Modules</b>	<b>Duration</b>
Core Modules	<b>Industrial Field Instruments</b>	5 Months
	<b>PC based Systems for Industrial Automation</b>	
	<b>Programmable Automation Controllers (PAC)</b>	
	<b>Automation System Integration &amp; Engg Concepts</b>	
	<b>PLC &amp; PID Controllers</b>	
	<b>Industrial Data Communications</b>	
	<b>SCADA/HMI System Development</b>	1 Month
<b>Distributed Control System (DCS)</b>		
	<b>Industrial Drives &amp; Robotics</b>	
	<b>Project Work</b>	

Other Contents:

- a. Fees to be paid:

**Indian Students****Admission fee:**

Rs. 250/- to be paid at the time of admission.

**Course Fees:**

Total course Fee is Rs. 53000/- + service tax @ actual. SC/ST candidates with family annual income less than 1 lakh rupees are eligible for 25% fee concession

The course fee can be paid in three installments.

**First Installment:** Rs. 10000/- + service tax @actual.

The students in the **first selection list** have to pay the first installment fee at the time of taking provisional admission itself (after selection).

The students in the **additional selection list** have to pay both the first & second installment fee together on the date of counseling.

**Second Installment:** Rs. 25000/- + service tax @actual.

Second installment has to be paid on the date of counseling.

**Third Installment:** Rs. 18000/- + service tax @actual.

Third installment has to be paid on or before 19<sup>th</sup> November 2010.

**International Students**

US \$ 2500

The full fee has to be paid at the time of admission itself.

- b. *Eligibility:* BE /B.Tech in Electrical/ Electronics/ Instrumentation/ Chemical Engineering/ Applied Electronics and Instrumentation/ Instrumentation & Control/ Electronics & Communication/ Mechatronics / Computer Science. Final year students<sup>#</sup> of above disciplines also may apply.

Students with M. Sc in Instrumentation/ M. Sc in Industrial Electronics/ M. Sc in Electronics may also apply. However, preference is given for students with BE/B.Tech background with the branches mentioned above.

<sup>#</sup> On the date of counseling/ admission, final year students have to produce the originals of course completion certificate & mark lists up to the last semester/year examination. Only those candidates who have passed all the semesters/ year examinations of their qualifying degree on or before the date of counseling are eligible for admission.

The Post Graduate certificates shall be issued to only those who produce the original or provisional degree certificate and the original mark lists and complete all the modules of PC100 program successfully as per the course requirements.

**International Students:**

In addition to the requirements mentioned above foreign students are to provide a recommendation /reference letter from Indian Embassy or their Government to establish their identity.

- c. Number of Seats : 40
- d. SC/ ST/ Persons with Disabilities: Are eligible for seat reservation and relaxation in minimum eligibility marks.
- e. How to Apply :

Students can apply for the course/s by either filling up the online application form or by downloading the application form and forwarding the same to the Training Officer, along with DD for Rs.1000/- as advance deposit (non refundable in case the student is selected and not joining for the course). The advance fee shall be returned to the students who are not selected or have completed the training at our Centre, and the fee shall not be adjusted towards the course fees.

Requirements for hostel/accommodation to be clearly mentioned in the application and such requests should be accompanied by an additional amount of Rs.500/- (non refundable in case the student is selected and not joining for the course / the student joins the course and does not avail the hostel facility). Hostel bookings shall be considered only if the same is mentioned in the application and the requisite payment is enclosed along with the application.

**Procedure for Online application:** Students can apply online by filling up the online application form. The students are first required to obtain the DD for Rs.1000/- towards advance fee and Rs.500/- in case hostel is required. The students are required to fill the details with regards to the DD Number, Date and amount. The students are requested to note down their registration number allotted after pressing the "Submit" button and forward the demand draft mentioning their name and their online registration number. Online registrations not containing the advance fee details will not be considered for registration.

**Procedure for applying using the Application form:** The students can download the application form from our web site and fill the particulars and forward the same to the Training Officer along with the requisite fee as mentioned above.

Filled in application forms and Demand Draft should be sent to the **Training Officer, DOEACC Centre Calicut, P. B. No. 5, NIT Campus Post, CALICUT – 673 601, Kerala. The Name of the Course Applied for should be super scribed on the top of the cover in which the application form is forwarded.**

- f. Selection of candidates: Selection of candidates who have the requisite qualifying degree will be based on the percentage of marks in their qualifying degree subject to eligibility and availability of seats. Selection of candidates who have completed the course but expecting the results shall be based on the aggregate percentage of marks mentioned in their final mark list and on the availability of seats. In case the aggregate percentage of marks is not given in the final mark list, the sum of marks from the first to last for all the semesters/ years shall be considered as the aggregate marks.

**The selection lists are prepared based on the details given by the applicant at the time of submitting the application.**

**The admission to the course shall be based on the following criteria:**

The applicants should have the requisite eligibility criteria as mentioned in section (b), page 3/14. In the case of final year students, they must have passed all the semesters/ year examinations of their qualifying degree at the time of counseling. Selection list of students will be prepared and published in our website as follows.

**First selection list** will be prepared based on the applications received on or before **23<sup>rd</sup> August 2010**. The **additional selection list** will be prepared, if there are vacant seats, based on the applications received on or before **2<sup>nd</sup> September 2010** and excluding the applicants included in the first selection list.

**First selection list:** The first selection list of applicants will be finalized and published in our website on **25<sup>th</sup> August 2010**. After that seats will be available only against any vacancy that arises and will be published in the **additional selection list**.

**The students have to verify their selection to the program from our website. No separate call letters will be sending to the students for admission.**

**The selected students in the first selection list have to take provisional admission on or before 2<sup>nd</sup> September 2010 by paying the first installment of fees (as mentioned in pages 6/14 and 7/14). Their admission shall be confirmed only after verifying their original certificates on the counseling date.**

The selection of those applicants, who are in the published first selection list and not paying the first installment of fees on or before **2<sup>nd</sup> September 2010**, is cancelled and will not be having any further claim for the seat.

**Before payment of the first installment of fees the applicants may ensure themselves that they meet all the admission criteria. In case applicants need any clarification they can contact us over phone/ E-mail or come over to our centre directly before payment of fees.**

**Additional selection list:** The additional selection list of students will be finalized and published in our website on **4<sup>th</sup> September 2010**, based on the vacancy that arises from the first selection list.

The students in **the additional list** have to come directly to the centre on the date of counseling for admission. Their admission shall be confirmed only after verifying their original certificates/ mark lists and after payment of the first & second installment of fees, on the counseling date.

**PAYMENT OF FEES:**

<u>Mode of Payments</u>	
1	Demand Draft to be drawn in favor of Director, DOEACC Center Calicut, Payable at State Bank of India, Calicut NIT Branch(2207). The DD should reach here before the last date.
2	Using the pay in slip available in our web site, through any branch of SBI (where this format is accepted). The counterfoil <b>in original</b> should reach here before the last date.
3	<p>The fees can be paid directly into our account from any bank where core banking facility is available. The details required for direct payment are as given below.</p> <ul style="list-style-type: none"> <li>• Current Account No: 10401158037</li> <li>• Bank Name: SBI, NIT Chathamangalam</li> <li>• Bank Code: 2207</li> <li>• IFC No: SBIN0002207</li> </ul> <p>The depositor should obtain the UTR Number/Journal No from the branch while depositing cash directly into our account. Depositor should also obtain the counterfoil duly filled up and signed by the staff with seal of the bank through which the amount was deposited. The following details should reach here before the last date.</p> <ol style="list-style-type: none"> <li>1. Name of the Depositor</li> <li>2. Name of the Student</li> <li>3. Date of Payment</li> <li>4. Amount Deposited</li> <li>5. Name of Bank/branch through which amount deposited</li> <li>6. Purpose – Course ID – Advance Fee/Hostel Rent/Installment Fee etc.</li> <li>7. Proof of Deposit (counterfoil/acknowledgement <b>in original</b>)</li> <li>8. UTR Number</li> </ol>

The centre will not be responsible for any mistakes done by either the bank concerned or by the depositor while remitting the amount into our account.

**After making payment, the students in the first selection list must inform/ send us the details of payment made by e-mail/ letter/ fax before 02<sup>nd</sup>**

**September 2010 for verification. The payment has to be received on or before 2<sup>nd</sup> September 2010.**

**Payments by DD for the first installment of fees for applicants in the first selection list must be received at the centre on or before 2<sup>nd</sup> September 2010. DD received after 2<sup>nd</sup> September 2010 from students in first selection list will not be considered under any circumstances and the same shall be returned by return mail as far as possible.**

**The admission for selected students shall be on the counseling date mentioned. Admission is subject to satisfying the requirements and availability of seats. Attending the counseling does not guarantee admission**

g. Test/Interview (if applicable) : N/A

h. Counseling/Admission : **13/09/2010**

i. Admission Procedure :

Students who have been selected for test/interview/counseling/admission are required to report to the Centre on the prescribed day by 9:30 hrs along with the following

1. Attested Copies of Proof of Age, Qualifications, etc
2. Original Certificate of the above
3. Two copies of photograph and one stamp size photograph for identity card.
4. SC/ST Certificate (if applicable)
5. Income Certificate (if applicable)

The students on reaching the Centre are required to meet the Front Office Councilor (FOC). The FOC then directs the student to the Course Coordinator. The student gets the enrollment form verified by the Course Coordinator and then meets the FOC who shall direct the student to the Accounts for payment of fees. A student is thus admitted.

j. Important Dates (if applicable) :

Last date for receiving completed application forms	<b>First selection list will be prepared based on the applications received on or before 23<sup>rd</sup> August 2010.</b>
---	---

	<b>The additional selection list will be prepared based on the applications received on or before 2<sup>nd</sup> September 2010 and excluding the applicants included in the first selection list.</b>
Publication of <b>first selection list</b> in our website	<b>25/08/2010</b>
Last date for taking provisional admission by paying the first installment of fees for applicants in the first selection list	<b>02/09/2010</b>
Publication of <b>additional selection list</b> in our website (if there are vacant seats)	<b>04/09/2010</b>
Counseling date	<b>13/09/2010</b>
Course commencement date	<b>14/09/2010</b>
Payment of first installment of fees for applicants in first selection list	<b>02/09/2010</b>
Payment of second installment fees for applicants in first selection list	<b>13/09/2010</b>
Payment of first & second installment fees for applicants in additional selection list	<b>13/09/2010</b>
Payment of third installment fees	<b>On or before 19/11/2010</b>

- k. Discontinuing the course: No fees under any circumstances shall be refunded in the event of a student discontinuing the course.
- l. Course Timings: The classes and labs are from 9:30 AM to 12:30 PM and 2:00 PM to 5.25 PM, Monday to Friday.
- m. Location and How to reach: DOEACC CENTRE Calicut is located very near to NIT (REC) campus and is about 22Kms from the Calicut (Kozhikode) city. A number of buses [Buses to NIT via Kunnamangalam] are available from "Palayam Bus Stand or KSRTC Bus Stand". Our stop is called "Panthrand" & is one stop before NIT. The bus fare is Rs.10/- from Calicut City to DOEACC Centre and is on the right side.

The Calicut (Kozhikode) is well connected by Rail, Road and Air form different parts of the country. The climatic conditions in Calicut are perhaps one of the best in India throughout the year. The maximum and minimum temperatures range between 35 and 20°s. The cool breeze further adds the comfort.

- n. Course enquiries: Students can enquire about the various courses either on telephone or by personal contact between 9.15 A.M. to 5.15 P.M. (Lunch time 1.00 pm to 1.30 pm).

- o. Placement: We have a placement cell, which provides placement assistance to students who qualify our courses. Partial list of our past students is given in Annexure I.
- p. Hostel facilities: Hostel accommodation is available for boys and girls on daily or monthly chargeable basis. The hostel fee varies from 450/- to 900/- per month depending on the location of accommodation. However, students are required to pay the hostel fees for the duration of the course for which they are seeking admission at the time of joining the course.
- q. Canteen facilities : The Centre has a canteen functioning at the main campus and food at reasonable rates is available for breakfast, lunch, and dinner
- r. Lab Facilities  
Industrial process controllers& Field instruments  
PLCs (Allen Bradley, SIEMENS & ABB ), SOFTPLC  
Intellution iFIX SCADA, NI LabVIEW SCADA module & SCADA Hardware  
Distributed Control Systems (DCS) - ABB Freelance 800F  
FOUNDATION Fieldbus  
Profibus,DH 485,CAN, HART Development System  
Wireless Sensor Kit, Bluetooth and Wi-Fi devices  
Image inspection system  
LabVIEW Express,GPIB & IMAQ Vision System  
Data acquisition systems with PCI ,ISA and Ethernet Fieldpoint I/O  
Programmable Automation Controller (PAC)  
Smart Instrument Design using SoC/ FPGA/ DSP/ Microcontroller based Development Systems  
Training Plants set up with real sized industrial instruments and controlled through PLC and PC  
Industrial Robots (Scorbot ER – VII, Mitsubishi RV – M1)  
AB power flex 40 and ABB ACS550 AC drives  
ABB DCS800 DC drive  
Labvolt AC and DC drive trainers
- s. Course Contents :

**Industrial Field Instruments, PC based Systems for Industrial Automation, System Engineering & Programmable Automation Controllers**

- PC based hardware and software for Data Acquisition Systems (DAS) and Control
- Automation system structure & functional Levels
- Standard instrumentation signal levels
- Selection of sensors/transducers for Industrial application
- Functions of industrial signal conditioners
- Signal conditioning requirements of common transducers

- Intelligent transmitters/sensors
- PC Based Data Acquisition System Design
- PC Based Data Acquisition & Control (DAQ) I/O Devices
- PC Based DAQ System Buses
- Graphical programming for data acquisition, signal processing, Control, analysis & presentation using Measurement and Automation Software
- Developing data acquisition and instrument control applications using LabVIEW
- Control system design and simulation using LabVIEW
- Design of Instrumentation Loops, ISA Symbols & Diagrams
- Digital controllers design and implementation
- Actuators/ Final control elements
- Instrument Control & Connectivity
- Automation System Engineering Concepts
- Field wiring and noise consideration of analog signals
- Introduction to Programmable Automation Controllers (PAC)
- PAC architecture using NI hardware and software
- Data Acquisition & Control with RTOS (NI Fieldpoint I/O)
- RTOS based Industrial Applications
- Essential C Programming for LabVIEW RT and Industrial Drives
  - Operators & evaluating expressions, Control Structures
  - Functions & Pointers, Arrays & Strings, Composite Data Types

### **PLC & PID Controllers & Industrial Networking**

- Programmable Logic Controllers & PLC interfacing Techniques
- Programming of PLC using Ladder diagrams, Function Block diagram & Structured Text Language
- Troubleshooting and maintenance of PLC systems
- Implementation of control techniques using PLC
- PLC programming with Allen Bradley SLC500 series (SLC5/02 & SLC5/04), RS Logix 500 Software, Emulate500 Software
- SIEMENS SIMATIC S7 controllers (CPU 314 & 315-2 DP)
- Step-7 programming S/W, SIMATIC WinAC Soft PLC systems
- ABB AC500 PLC System, PM 581-ETH CPU
- ABB Software PS501-PROG Control Builder
- Programming with IEC 1131-3 Languages
- System design with PLC
- Comparison of different brands of PLCs
- Fundamental process control techniques
- Controller tuning methods
- Introduction to Industrial Networking
- Analog and Digital Communications on Plant Floors
- RS232-422-485 standards
- PLC to PLC & PLC to PC communication
- Profibus, DH-485

### **SCADA / HMI System Development**

- Introduction to SCADA
- Different Systems in SCADA like Field Instrumentation, RTUs, communication Networks and Central Monitoring Stations
- Intellution's iFIX SCADA Software
- National Instrument's LabVIEW DSC (Distributed & Supervisory Control) Software
- HMI Development, Data Processing, Control Algorithm Programming
- Modem connectivity & SCADA protocols
- Network Communications, Communication with RTUs
- Data Acquisition with Cards and PLCs/RTUs
- Database Connectivity
- SCADA development for Small Scale Pilot Plants (Case Study)
- OPC (OLE for Process Control) Configuration
- Comparison of different SCADA packages

### **Distributed Control System (DCS)**

- Introduction to ABB 800F DCS
- Project Management
- Configuring the Hardware Structure
- AC 800F Process Station

### **Industrial Drives & Robotics**

- Motors & Drives
- DC Motor Drives
- AC Motor drives
- Embedded Controllers for Drives
- Industrial Application of drives
- Concepts of Industrial Robots, Classification
- Robot Task Programming
- Applications of Robotics
- Introduction to Machine Vision

### **PC100 Project work:**

In the project work (1 month duration), students will be guided to do project work in advanced technologies of Industrial control and instrumentation. Students will be given choice in selecting project among different projects available based on different technologies. Working/Sponsored candidates can opt to do their project work at the employed organization. The student has to submit project registration form, progress reports and project completion form duly signed from their project guide at the employed organization.

**Annexure I**

<b>Name of the candidate</b>	<b>Company Placed</b>
Sandeep Jain	<a href="#">Cipla Pharmaceuticals, Goa</a>
Sourav Lahariya	<a href="#">Icon controls pvt ltd</a>
Lijo Cherian	<a href="#">Proficient Automation and Controls Pvt. Ltd., Kochi</a>
Prashob P K	<a href="#">Proficient Automation and Controls Pvt. Ltd., Kochi</a>
Pankaj Kumar	<a href="#">Yokogawa India Limited, Bangalore</a>
S. Karthick	<a href="#">Kamachi Sponge and Power Corporation Ltd., Chennai</a>
Tapan	<a href="#">IATC SIEMENS, Punchkula, Haryana</a>
Deepak Chittora	<a href="#">Contrive Instrumentation Pvt ltd</a>
Suyash Kulkarni	<a href="#">Bamo Electronics</a>
Satish Kumar Verma	<a href="#">Sparta Cements And Infra Ltd.</a>
Rajesh.R	Dintis Technologies Pvt. Ltd.
Einstin.E.V	<a href="#">Software Technology Park, Trivandrum</a>
Ravindra Vedula	<a href="#">PRIYA CEMENTS, A.P</a>
Vipin Das.k	<a href="#">BHEL, Hyderabad</a>
Renjith.R	<a href="#">Consyst Integrated Control Systems, Ernakulam</a>
Anwar Sadhique. K	<a href="#">Consyst Integrated Control Systems, Ernakulam</a>
Vipin.A.m	<a href="#">Proficient Automation and Controls Pvt. Ltd., Kochi</a>
Ashif. A. A	<a href="#">Proficient Automation and Controls Pvt. Ltd., Kochi</a>
Rajendra kumar	<a href="#">SMEC Automation</a>
Shaneeje.K.K	<a href="#">Merchem Limited, Cochin</a>
Able Mathew	<a href="#">Solectron EMS India LTD Bangalore</a>
Shabeer Backer	<a href="#">Prosafe Production, Singapore</a>
Sankar Rajeev Sankar	<a href="#">Eurotherm India Pvt Ltd</a>
Tobey Daniel	<a href="#">Eurotherm India Pvt Ltd</a>
Aju Mathew C	<a href="#">Honeywell Automation India Ltd.</a>
Pranakrushna Sahu	<a href="#">Bhusana Steel &amp; Power Plant, Jharsugada (Orissa)</a>
Christopher Frederick	Chemin C & I pvt. ltd. Pondicherry
Sandeep. N	<a href="#">Sun Industrial Automation Solutions, Chennai</a>
Kumara Guru	Barka Phase II, Power and Desalination Plant, Sultanate of Oman
Praveen. K	<a href="#">Captronic Systems Pvt Ltd, Bangalore</a>
Mithun Narendran	Fusion Electronics Pvt. Ltd., Bangalore
Baskaran. M. S	Fusion Electronics Pvt. Ltd., Bangalore
Ajay Singh Pannu	Fusion Electronics Pvt. Ltd., Bangalore
Saidulu Eerla	Fusion Electronics Pvt. Ltd., Bangalore
Shirish Kumar Shrivastava	Fusion Electronics Pvt. Ltd., Bangalore
Maneesh Joseph	Fusion Electronics Pvt. Ltd., Bangalore
Dipin. N	<a href="#">Rotomech Automation Limited</a>
Deepak Singh	<a href="#">Hero Cycle Limited, Punjab</a>
Anish Wilson	<a href="#">Cotmac Electronics Pvt., Bangalore</a>
Ajmal Ahmed	<a href="#">C3Automation, Dubai</a>
Jasir Sabri Omar	Star Electronics (System House for IDEC IZUMI Corporation Japan <a href="http://www.idec.com">http://www.idec.com</a> ), Bangalore

Sheik Sulthan Alaudeen. A	<a href="#">Vedanta Group, Sterlite Industries (I) Ltd.</a> , Tuticorin – 628 002,
Firose. N	<a href="#">Tridenttechlabs Pvt. Ltd.</a> , Bangalore-560008
Kiran kumar V	<a href="#">Metsys Engineering &amp; Consultancy Pvt. Ltd.</a> Bangalore - 560032
Aljit Mohamed Musthafa	<a href="#">Yokogawa India Limited</a> , Bangalore
Shahul Khalid	<a href="#">Kalki Communication Technologies Pvt Ltd.</a> , Bangalore
Shanoj.B	<a href="#">Kalki Communication Technologies Pvt Ltd.</a> , Bangalore
Pravin V Dhake	<a href="#">Flat Products Equipments (I) Ltd.</a> , Mumbai
Shimjith cm	S. S. S. Technical Services, Modi Nagar, Govindapuri, UP-201 201
Somasundar PN	KR Electricals, Bangalore
Babu H.	Proficient Automation, Cochin
Hitendra Talegaonkar	<a href="#">Kalki Communication Technologies Pvt Ltd.</a> , Bangalore
Vishwadeep Shah	<a href="#">ABB Ltd.</a> , Bangalore
Sohan Pal Singh Rawat	<a href="#">Kalki Communication Technologies Pvt Ltd.</a> , Bangalore
Chandrakant Kuri	<a href="#">Kalki Communication Technologies Pvt Ltd.</a> , Bangalore
Sajeesh S	S. S. S. Technical Services, Modi Nagar, Govindapuri, UP-201 201
Faseelath C M	Process Automation Consultancy And System Integrators (PRACSI), UAE
Ramesh Patil	<a href="#">Kalki Communication Technologies Pvt Ltd.</a> , Bangalore
Basav Jyoti Nath	<a href="#">Emerson Process Management</a>
Ashraf Moideen	<a href="#">US Software</a> , Technopark, Trivandrum
Ratheesh.R	Electromechanical Company, Abu Dhabi
Nedhin Jyothi Raj	<a href="#">Satyam Computers</a> , Hyderabad
Nishath gopal	ICICI, Bangalore
Nitin Sompura	Polycab Wires Pvt. Ltd., DAMAN
Rupesh Anchal	<a href="#">WIPRO</a> , Bangalore, India
Shailendra Jain	Polycab Wires Pvt. Ltd., DAMAN
Vinod Saini	Polycab Wires Pvt. Ltd., DAMAN
Mansoor Mohammed A K	<a href="#">ABB</a> , India
R. Vivek	<a href="#">Sun Industrial Automation Solutions</a> , Chennai
Pankaj Verma	JK-WHITE CEMENT WORKS
Jithesh. V	<a href="#">Proficient Automation</a>
Surya.C	Alpha Automation (System house for L&T), Gurgaon, Haryana
Mathakala Sreenivasulu	Elins Switch Boards Pvt. Ltd.
Jasvin Singh	Dyanamic Engineers Pvt Ltd, New delhi.
PRADEEP KUMAR.T	TATA Honeywell Ltd.
V. Partha Sarathi	<a href="#">Qmax Test Equipments Pvt Ltd</a> , Chennai
R. Raghavendra Prasad	<a href="#">Amar Raja Batteries</a>
J. Aravind Henry Jefferson	Chavarey Enginnering Pvt Ltd, Mumbai
Ditty K	BSNL
Sunil K. Ghongade	<a href="#">Moser Baer india Ltd.</a> , Noida (U. P.)

CDS/CA/7.5.1/F 40/R0