GOVERNMENT OF GUJARAT

CHARUTAR VIDYAMANDAL
VALLABH VIDYANAGAR, GUJARAT, INDIA

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e-Prayog
Virtual Labs (Electronics), IIT Bombay
Wadhwani Electronics Lab
An initiative of Ministry of Human Resource Development (MHRD)
under the National Mission on Education through ICT

Three-day workshop on *Microcontrollers & Interfacing*

18-20 January 2013

Organized by

B. V. M. Engineering College
Nodal Centre under Anchor Institute, CEPT, Skill Development for Infrastructure Sector,
Commissioner of Industries,

in association with,

e-Prayog Virtual Labs (Electronics),
IIT Bombay,
Mumbai – 400076

Venue of the Workshop:

BVM Engineering College, Vallabh Vidyanagar
Gujarat, India.

Principal: Dr. F. S. Umrigar

Head of Department: Dr. B. R. Parekh

Course coordinator (BVM) : Prof. Rashesh Mehta (9727720643)
(rpmehta@bvmengineering.ac.in)
Course coordinator (IIT Bombay)
Ms. Madhumita Date
Project Manager, e-Prayog,
Wadhwani Electronics Lab,
IIT Bombay
098199688511

Who Should Attend?

Faculty members from colleges affiliated to GTU who have taught and will be teaching in forthcoming semesters the course, "Microcontroller and Interfacing" for Instrumentation & Control /Bio-Medical /Electrical and Electronics/Electronics/ECE/E&TC/ICT and Electrical Engineering.

Course Fee:

Rs. 800 per participant which includes working lunch and refreshment
Accommodation shall be provided on request with extra charges
TA/DA will not be reimbursed.

Teaching Faculty

e-Prayog team from Wadhwani Electronics Lab, Department of Electrical Engineering, IIT Bombay.

Registration

For the Registration kindly send the filled form along with DD or Local bank cheque in name of Principal, BVM, V. V. Nagar or cash.

Please submit your filled form on or before 10 /1/2012.

For any query please contact:
Narendra Shukla (Coordinator – CEPT project)

9662563626

About the workshop

The workshop has been specially designed to suit the GTU curriculum and is expected to cover the entire lab requirement of the course, "Microcontroller and Interfacing" taught in V Sem for Instrumentation & Control /Bio-Medical /Electrical & Electronics /Electronics /ECE/E&TC/ICT & "Microcontrollers" taught in VI

semester to Electrical Engineering. Both platforms are also suitable for final year BE projects.
The participants will be given hands-on training on Pt-51 and Aurum.
Both these platforms have been developed by e-Prayog team at IIT Bombay. They are USB-powered and programmable and use free IDE. Most of the experiments recommended by GTU can be conducted with only PC or laptop and the interfacing device in addition to the platform.
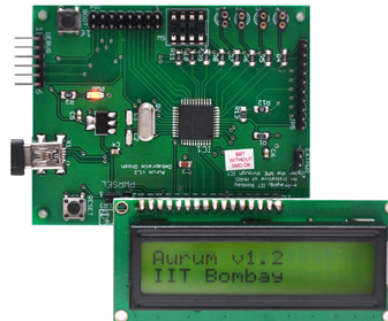
Pt-51

Aurum

Note

- An open book practical test will be conducted on the last day for formative assessment.
- Each interested participating department (participants should qualify the test) of an institute will be provided with **Ten Microcontroller platforms** (worth Rs. 15,000/) **FREE OF COST** to conduct the lab in their institute.
- All the GTU affiliated colleges' Directors/Principals are requested to kindly nominate at least one faculty from your college, so that your institute can benefit from this workshop.

Workshop Schedule

Day-1	
8.30 am	Registration and Inauguration
9:00 am	Introduction to e-Prayog, IIT Bombay
10.30 am	Introduction to AT89C5131 architecture Using KEIL μVision IV IDE and ATMEL FLIP
2.00 pm	**Lab session:** **Familiarization experiment**: Software delay **LCD interfacing:** Display the contents of 8051 registers on the liquid crystal display
3:45 pm	**Lab session:** • Timer applications • Hex Keypad interfacing
Day-2	
9.00 am	**Lab Session:** Stepper and DC motor control PCA Applications
2.00 pm	Basics of embedded C: Short introduction **Lab Session:** • Interfacing ADC using SPI • Interfacing temperature sensor and displaying the temperature on LCD
Day-3	
9.00 am	**Getting started with PIC 18F4550** **Lab Session:** Keypad and LCD interfacing Temperature indicator using I2C
2.00 pm	**Lab test** ==An open book practical test will be conducted== **Valedictory Function**

About CEPT University:

The Government of Gujarat aided the Ahmedabad Education Society to establish CEPT as a separate institution. Centre for Environmental Planning and Technology is an esteemed University offering under graduate and Post graduate degree programs in Natural and Built Environment. The aim of CEPT is to impart higher education in Technology and Developmental Sciences. CEPT is acting as Anchor Institute for infrastructure in a scheme of Government of Gujarat.

About BVM:

BVM, the first degree engineering college of Gujarat State was established by Charutar Vidhya Mandal in 1948 with the blessing of Sardar Vallabhbhai Patel. The founder Principal of this college was Principal Junarkar. BVM celebrated its diamond Jubilee Year in 2008. Since then, with the generous financial help from BVM Alumni and other donors a great thrust has been provided for modernization of laboratories and infrastructural facilities. BVM has been selected as a Nodal Institute for Infrastructure.

Registration Form

Name:

Teaching Experience:

Department:

College:

DD No./Cheque No.:

Accommodation required: Yes/No

Signature of Principal/Director: