

# GTU-MOOC Initiative for EC Projects

Ref: GTU/Blended-MOOC/2015/

31/07/2015

## CALL TO 5<sup>th</sup> & 7<sup>th</sup> SEMESTER EC STUDENTS

With an objective to help the GTU community improve the quality of education, GTU has introduced the concept of Blended – MOOC (Massively Open Online Courses). The objective is to strengthen the regular courses under the existing conventional teaching methodology adopted by institutes affiliated to GTU by blending them with online MOOC courses.

It has been observed that a large number of EC students face numerous difficulties while executing their projects. Rather than overcome them, many are seen to give up and opt for ready-made projects from the market. Kindly note that GTU is strictly against purchased projects since this amounts to plagiarism.

Dr. Vithal N. Kamat, Director (Industries), GTU Innovation V. V. Nagar-1 Sankul, has volunteered to offer online Project training classes for EC / ET/ EE students studying currently in their 5<sup>th</sup> Semester and 7<sup>th</sup> Semesters as per the following schedule.

*Table 1 Project Training Class Schedule*

Relevant GTU Course Names	Days	Timing
170001: EC Project – I; 171005: Department Elective – 1 – Embedded Systems; 2151001: Microcontroller and Interfacing; 2150907: Microprocessor and Microcontroller Architecture and Interfacing.	Mondays, Wednesdays, Fridays	9:00 AM to 10:30 AM

The online interactive classes would commence from Monday, 03 August 2015. The e-learning tool that will be used for the interactive classes is A-VIEW Version 4.0 developed by Amrita University. It is suggested that the Engineering Institutes teaching the above courses should offer a classroom or laboratory that is equipped with an A-VIEW setup (with an internet upload /download speed > 512 kbps) to the students who are interested in participating in the above mentioned online sessions.

Those institutes which have not registered themselves and downloaded A-VIEW as yet are requested to do so immediately. In case they have any difficulties, they may contact Mr. Alpesh Vaghela, Programmer and A-VIEW Tech. Co-ordinator, GTU, +91 9913607999 (Mobile); [alpesh@gtu.edu.in](mailto:alpesh@gtu.edu.in), or Mr. Sibi Bhaskaran, Sr.Manager, Amrita E-Learning Research Lab, Amrita University, Kollam, Kerala, [sibib@am.amrita.edu](mailto:sibib@am.amrita.edu) ;

[sibi91011@gmail.com](mailto:sibi91011@gmail.com); [www.aview.in](http://www.aview.in); [www.amrita.edu](http://www.amrita.edu); +919446482900(Mobile); +914762804405 (Lan);

The online EC Project training is offered free of cost. No Fees are charged. On successful completion of the course, the student would be able to get a practical insight into topics such as building embedded solutions on an ARM Cortex- M0+ platform, understanding I2C bus, peripherals such as state configurable timers, Switch matrix for reconfigurable I/O ports, switch mode power supplies, etc. Sessions will focus on debugging, debugging tools, programming concepts such as In-Application Programming in Flash memory. Case studies of embedded applications with 'Smart features' will be covered. Many of the topics are based on state-of-the-art technologies, to ensure that students have better job prospects.

No marks or credits would be offered to the students attending this online MOOC course. Students need to also attend their regular project laboratories and appear in the external end-semester examination conducted and evaluated by GTU in the regular manner. However, the student may request his/her institute to adjust marks /credits towards the internal continuous evaluation component based on his/her performance in this online MOOC course.

Points to Note:

- Students are required to register for this EC project training course with their local guides at their own institute.
- The students registered for GTU-MOOC would be effectively mentored by their own guides / faculty members in their institute.
- Courses would start on 31st July 2015 and end on 31st December 2015.

## **REGISTRATION PROCESS FOR INSTITUTES:**

1. Go to A-VIEW Registration Website : ([www.aview.in](http://www.aview.in); [www.amrita.edu](http://www.amrita.edu))
2. Complete the one-time registration.
3. Download the A-VIEW Version 4.0 tool from the site.
4. Click on A-VIEW icon, Choose Server: National Server, then enter the Username and Password.
5. Enter the Classroom : Live Session – GTU – EC Project Training at least 15 minutes before start of the session (i.e. before 8:45 A.M.). Under My Settings – Audio/Video Settings, choose Audio/Video Bandwidth of 28 kbps. Observe discipline and net etiquette to ensure smooth functioning of the class session.

Notes: A-VIEW is a non-profit online platform created with funding from National Mission on Education through Information and Communication Technology (NME-ICT), Ministry of Human Resource Development (MHRD), Government of India (GOI).

Signed

Chairman, GTU-MOOC Committee

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## About the Instructor

Dr. Vithal Narasinha Kamat received his Doctorate in 1996 in the field of Artificial Intelligence from the *University of New Brunswick*, Canada, where, as a Commonwealth Scholarship and Fellowship Student, he specialized in Learning Machines. He has a Master of Technology (1986) in Control and Instrumentation from the *Indian Institute of Technology* (IIT), Bombay. Earlier, he received Bachelor Degree with Gold Medal in Electrical Engineering from BVM Engineering College, Sardar Patel University, Gujarat, India in 1984. Between 1986 to 1991, Kamat has served in Dr. Sam Pitroda's telecom R&D center of the Govt. of India – '*Centre of Development of Telematics*' (C-DOT) where he helped develop private, rural as well as metropolitan electronic switching systems (telecommunication revolution of the 80's). Kamat has also contributed to the power industry, as a member of the Technical Committee set up by the Ministry of Power, Govt. of India, for the *Accelerated Power Reform and Development Programme* (APDP). He set up '*Centre for Apparent Energy Research*', an R&D unit of Baroda Electric Meters Ltd. (BEM), and recognized by the Dept. of Scientific and Industrial Research (DSIR), Ministry of Science and Technology, Govt. of India, where he has shown his expertise in the development of state of the art low cost apparent energy (kVAh) meters supporting a tariff that is fair and environment friendly (unlike the active energy, kWh, tariff currently in use).

From 2003 to 2008, he served as a Technical Consultant to NXP (formerly Philips) Semiconductors. During this period, as a proprietor of an R&D organization, '*Centre for Embedded Software Engineering Solutions*', Vithal Udyognagar, Gujarat, he developed various embedded solutions based on 8051 and ARM architectures for NXP's customers, such as fuzzy washing machines, air-conditioners, capacitor discharge ignition (CDI) for two wheelers. He also managed NXP's technical help-desk for India.

For 5 years (2009 to 2014), he served as the founder Principal of Madhuben & Bhanubhai Patel Women's Institute for Computer and Communication Technology, (MBICT), on a techno-social mission to empower Indian women. At MBICT, he also served as a Remote Center Coordinator (RCC) of IIT Bombay set up under the National Mission for Education using ICT (NMEICT), Ministry of HRD, Govt. of India, to impart quality education using novel distance education concepts and Massively Open Online Course (MOOCs) model.

He is currently serving as a Director (Industries), Gujarat Technological University (GTU) Innovation V.V.Nagar-1 Sankul, a collaborative initiative between 20 academic institutions and local industries of Anand district. He is also serving as a Managing Director of Baroda Electric Meters Ltd. which has recently successfully launched energy efficient Smart LED street-lamps called Light-Saber.