GUJARAT TEHCNOLOGICAL UNIVERSITY
Community Innovation & Co-Creation Centre

Report

on

"Three Days Introductory Program on Lab VIEW for Faculties and Students of Research Partner institute of GTU Smart city Lab and Community Innovation and Co- Creation Centre"

organized on

18th, 19th & 20th September2015

at

First Floor, Computer Lab, Block-6, Gujarat Technological University, L.D. Engineering College Campus, Ahmedabad

Report

Gujarat Technological University in association with National instrument conducted "**Three Days Introductory Program on Lab VIEW for Faculties and Students of Research Partner institute of GTU Smart city Lab and Community Innovation and Co- Creation Centre**."

The Vision of Honorable Vice Chancellor, **Dr. Akshay Aggrawal** for GTU smart city lab will be a fore-runner in the field of smart systems research and development, and bring home the project based learning approach implemented at the leading world universities. Mission of GTU Smart city lab is to enable all engineering students and faculty – irrespective of the department and background, for smart systems Design, Analysis, Measurement, Control, and Automation. National Instruments will contribute with GTU smart city lab by their experiential learning setups implemented at University of Stanford, UC Berkeley, University of Virginia, UT Austin and MIT – customized according to India's unique challenges and strengths.

The Program was held at First Floor, Computer Lab, Block-6, Gujarat Technological University, L.D. Engineering College Campus, Ahmedabad. The program was attended by more than 50 professors on first day and 480 students out of 700 on second and third day which was conducted in two different session .

The Program started with key note speech of **Dr. Rajul Gajjar**, Principal of Vishwakarma Engineering College, Chandkheda. She gave Motivational Speech about Smart city Lab Development and invited faculties to contribute their expertise in terms of Teaching- Learning and research Work (PG and PHD Scholars). Then after **Mr. Solaikutti Dhanabal**, Academic Manager in National

Instrument delivered his speech about how National Instruments will contribute in Development of Smart City Lab.

The aim of the program was to provide hands on experience to participants in using **LabVIEW (Laboratory Virtual Instrument Engineering Workbench). Mr. Harshvaradhan aggrawal**, Resource Person from NI gave Introduction about LabVIEW which is a system-design platform and development environment for a visual programming language from National Instruments**. Mr. Avichal Kulshrestha** also gave his views on LabVIEW. According to him, LabVIEW is a tool to solve today's problems faster and more effectively with the capacity to evolve to meet our future challenges. LabVIEW offers unprecedented integration with all measurement hardware, existing legacy software, and IP while capitalizing on the latest computing technologies.

The objective of the FDP is to provide practical hands-on experience to the participants in understanding the Modules of Labview with respect to Smart city Sensor Lab. The participants will be able to learn in-depth use of analytical tools in different domains (Mechanical, Civil,Chemical, Biomedical, Instrumentation and Control, Electronics and Communication, Electrical, Information and Technology and Computer engineering).

During the mechanical session, **Mr. Karun Jain**, resource person from NI introduced participants to NI Platforms for Graphical System design and also got hands-on exposure to the latest tools and technology. The major topics covered during the session were: 3-D Printing, Advanced Robotics, Autonomous Vehicles, Energy Storage technologies, Immersive Virtual Reality, Low cost Desalination Technologies, Magnetic Levitation - Maglev, Nanotechnology, Solar technologies, and Wearable devices. Similarly the major topics covered for Civil Engineers were: Construction Engineering & Management, Environmental Engineering & Science, Geotechnical, Materials, Structural, Transportation, Water Resources, Mining, and Petroleum.

Mr. Archan mudwel, resorce person from NI, in his session for Circuit Engineers (E.C, I.C, E.E,I.T, C.E, Biomedical,Chemical) explained Advanced Robotics, Artificial Intelligence (AI),Big data analytics,Bio-mimetics, Brain Computer Interface (BCI) or Mind-Machine Interface (MMI), Cloud Technology , Gamification,Immersive Virtual Reality, Internet of Things ,Internet of Things,Optogenetics , Photonics, Plasmonics , Quantum Computing, Real time translation, Semantic Web , Solar technologies, Synthetic Biology, Telemedicine, Wearable devices.

Feedbacks:

"The workshop was really fruitful as it has introduced us to the broad and exciting world of labview which can prove to be a great tool for us, The Engineers."

Suraj Ashwaney Pandey, GEC, Gandhinagar

"It was really nice and helpful for developing projects. I will definitely share this knowledge with my students so they can get advantage of it. "

Neha Dalwadi, from Vadodara institute of technology

"Nice hands on session on lab view with different project"

Chintan B. Dave, from VGEC, Chandkheda

"By attending this session I got to know the power of NI Lab View. This session will help me in making my dream project come true."

Jay Kared, Gandhinagar Institute of Technology

"I learnt too many things which is very helpful in my final year project and also learnt lab view which was superb."

DHARMIK D. SAGAR, GEC, GANDHINAGAR