



Rajarajeswari College of Engineering
(An Autonomous Institute Under Visvesvaraya Technological University, Belagavi)
Sponsored by: MOOGAMBIGAI CHARITABLE AND EDUCATIONAL TRUST



Department of Robotics and Automation

Report of 5 Days Skill Development Training on “Next generation system design with advanced LabVIEW techniques”

Type Event	: 5 Days Skill Development Training on “Next generation system design with advanced LabVIEW techniques”
Name of the resource person	: Dr. Ravi Kumar A V Associate Professor, SJB Institute of Technology, Bengaluru
Date of event	:30/03/2026 to 03/04/2026
Time	: 9.00 AM to 4.00 PM
Programme Coordinator's	: Prof. Manasa G, Assistant Professor, Department of Robotics and Automation
Target Audience	:6 th semester students of Department of Robotics and Automation



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Outcome of the Programme

Day 1: (30.03.2026)- Introduction & Basics

The program was inaugurated by Dr. R. Balakrishna, Principal, RRCE and Dr. Ravi Kumar A V Associate Professor, SJB Institute of Technology, Bengaluru through the traditional lamp lighting ceremony, in the presence of the HoD, Department of Robotics & Automation, and faculty members.



Dr. R. Balakrishna, Principal, RRCE, addressing the students during the inaugural session of the SDP



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First session

Students were introduced to the fundamentals of LabVIEW like graphical programming, front panel & block panel, control and indicators, data types. They also participated in hands-on training, working with simple VI creation.



Dr. Ravi Kumar explaining the fundamentals of LabVIEW like graphical programming, front panel & block panel, control and indicators, data types during hands on training.



Dr. Ravi Kumar interaction with students during hands on training



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Second session

Hands on training on complex VI creation like traffic light control, creating student ledger



Dr. Ravi Kumar A V demonstrating the complex VI creation like traffic light control, creating student ledger



Dr. Ravi Kumar clearing the doubts of students during hands on training



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Day 2: (31.03.2026)- Interfacing & Data acquisition.

First session

Introduction to Arduino, hardware overview (uno, sensors, actuators), installing Arduino IDE & LabVIEW interface toolkit (LINX).



Students creating a VI on traffic signal control to interface Arduino with LabVIEW.



Dr. Ravi Kumar A V demonstrating how to interface LabVIEW software with Arduino to control traffic signal.

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Second session

- a) Creating a VI on LED control by interfacing Arduino with LabVIEW
- b) Creating a VI on buzzer control by interfacing Arduino with LabVIEW



Dr. Ravi Kumar A V demonstrating LED connections to interface LabVIEW with IoT kit



Student controlling the LED using LabVIEW software



Faculty & students learning together



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Day 3: (01.04.2026)- Working with sensors by interfacing Arduino with LabVIEW

First session

- Creating a VI on traffic light control using LEDs.
- Creating a VI to verify the working LDR sensor.
- Creating a VI to verify the working of IR sensor.
- Creating a VI to measure the temperature using temperature sensor (LM35)



Students working to control traffic light & also with LDR, IR sensor



Students working with temperature sensor



Dr. Sateesha V-Hod, interaction with students



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Day 4: (02/04/2026)- Working with sensors by interfacing Arduino with LabVIEW



Students working with touch sensors & motor

Creating a VI to control the motor using touch sensor

- Creating a VI to beep the buzzer when the object reaches certain distance using ultrasonic sensor
- Creating a VI to measure the moisture level in soil using soil moisture sensor
- Creating a VI to automatically turn off the light during day & turn on the light during dark using LDR & relay.



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Day 5: (03.04.2026)- Mini project

Students built and explained mini projects. Throughout the program, students gained valuable hands-on experience by creating VIs & interfacing Arduino & various sensors with LabVIEW software using the IoT Kit. This SDP provided students with practical exposure and experienced learning.



Students working for mini project



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Group photo taken on final day of SDP with Resource person Dr. Ravi Kumar A V, Associate Professor, SJBIT, Dr. Satheesha V, HoD, R&A, Mrs. Chaitra, staff & students



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An Autonomous Institution

Under VTU, Approved by AICTE, UGC & GoK



No. 14, Ramohalli Cross, Kumbalagodu, Mysore Road, Bengaluru - 560074

DEPARTMENT OF ROBOTICS AND AUTOMATION

Organizing **5 - Days Skill Development Programme On**
'Next-Generation System Design with
Advanced LabVIEW Techniques'



30th March 2026 to
3rd April 2026



9:00 A.M. to 4:00 P.M.

Venue: LabVIEW lab, 4th floor
RRCE Campus

Co-Ordinator

Mrs. Manasa G
Asst. Professor

Dr. Satheesha V
HoD - R & A

Dr. R. Balakrishna
Principal



Resource Person:

Dr. Ravi Kumar A.V
Associate Professor
SJBIT
Bengaluru



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