



1.1.2. Summary Reports of Certification Programs



Agnel Charities'

Fr. C. Rodrigues Institute of Technology, Vashi, Navi Mumbai.

Academic Year
2018 - 2019



Agnel Charities'

Fr. C. Rodrigues Institute of Technology, Vashi, Navi Mumbai.

**National University Students' Skill
Development Programme (NUSSD)**



National University Students' Skill Development Programme



Report
8th July 2019



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Fr. C Rodrigues Institute of Technology (FCRIT)

INTRODUCTION

The employability of India's university graduates continues to remain weak even while there is an acute shortage of skilled manpower in an increasing number of high demand sectors. Though they have educational degrees, they lack the skills and the experience to get employed.

Skilling youth to enhance their employability and enabling them to be effective contributors to the nation's growth and development assumes paramount importance in the current context.

The Tata Institute of Social Sciences has been working to reach the youth through an innovative programme called '**National University Students' Skill Development (NUSSD)**' for the same purpose. The aim is to enable the youth enrolled in the various degree programs in Colleges and Universities in India to acquire skills that would give them a certificate/diploma in a specific high demand domain area in addition to their degree.

ABOUT NUSSD PROGRAMME

The National University Students' Skill Development (NUSSD) Programme is a unique initiative on skill development designed and undertaken by the Tata Institute of Social Sciences (TISS). The programme was initiated in 2013 in collaboration with **Ministry of Youth Affairs and Sports, Government of India (GoI)** and **National Skill Development Agency (NSDA)**, GoI to enable graduating youth acquire employable skills while pursuing their graduation or post-graduation so that they are job-ready as and when they pass out from the colleges. After completion of a successful pilot in 34 colleges of 11 Universities, spread across 9 States, the programme is being implemented across 120 colleges, including Engineering and Management colleges. Currently, the programme covers a student population of more than 20,000, spread across several states in the country.

NUSSD offers **Certificate Programme in 'Management and Soft Skills'** for students who are pursuing their Engineering and Management and a skill-linked domain courses leading to a Diploma (e.g. Diploma in Entrepreneurship) in parallel to their regular coursework. The classes are held in the participating College or University and the programme is designed on a schedule that minimizes disruption of work and personal pursuits of participating students.

NUSSD PROGRAMME AIMS AT:

1. Enhancing employability skills of students to have a suitable career option after graduation.
2. Develop skills, competencies and knowledge to intervene in an equal and sustainable manner in the social and economic development of people.
3. Foster socially conscious students grounded in respect for people and concerned about the welfare of others.

❖ CERTIFICATE IN MANAGEMENT & SOFT SKILLS:

All students enrolled for NUSSD will gain competency in following areas - (Compulsory Foundation Courses for professional competencies):

SN	Name of the Course	Theory Hrs	Practical	Total Hrs
1	English Communication	60	-	60
2	Youth Leadership and People Skills	45	-	45
3	Analytical Skills	30	30	60
4	Legal Literacy	30	-	30
5	Financial Literacy or Introduction to Entrepreneurship or Digital Literacy	45	30	75
6	Employability Skills	30	-	30
	Total	240	60	300

OBJECTIVE OF THE PROGRAMME:

It is expected that the successful implementation of NUSSD programme will enhance employability of the participants to a considerable level and enable them to gain certification which is recognized by Industry for skills and competencies, and will help in enhancing employability of the graduates both locally and nationally.

A good number of skilled graduates emerging as transformational leaders after the successful completion of the course. Eventually, the availability of skilled human resources will be in several million college graduates.

FCRIT & NUSSD, TISS decided to collaborate in order to enable the students to enhance their skills and become employable.

Currently there are two batches that are being offered the NUSSD Programme at FCRIT. **Batch I** comprise of second-and third-year students and **Batch II** comprises of second year students from Information Technology, Mechanical, Electronics & Telecommunications, and Computer Science departments.

PROGRESS SO FAR - BATCH I:

<u>S.NO</u>	<u>SESSION NAME</u>	<u>TRAINER NAME</u>	<u>COMPLETION STATUS</u>
1	Youth Leadership & People Skills (Effective Communication, Time Management & Stress Management, SWOT Analysis & Mind Mapping)	Mr. Shijin Sreeraman, Ms. Leela Banerjee, Ms. Khushboo Mehta	Complete
2	Financial Literacy	Ms. Sumithra Ramesh & Ms. Gayathri Arvind	Complete
3	Introduction to Entrepreneurship	Mr. Amit Mere, Prof Satyajit Majumdar	Complete
4	English Communication	Ms. Bindu Swaminathan Prof. Vineeta Dwivedi, S P Jain Institute of Management & Research	Complete
5	Legal Literacy	Adv. Darshan Ingole Dr. D.K Sonawane, Faculty of LLM from University of Mumbai. He was a former Judge.	Complete
6	Analytical Skills	Mr. Aakash Sinha	Complete
7	Employability Skills	Mr. Aakash Sinha	Complete

SESSION CONTENT

❖ YOUTH LEADERSHIP & PEOPLE SKILLS (YLPS)

The course Youth Leadership and People Skills (YLPS) is divided in 3 sections and each section looks at specific inputs to develop inner capacity & confidence, skills & knowledge and competencies & understanding.

The students went through a journey of self – discovery, awareness of one’s power and valuing diversity. They began with aspects of the self, sourcing inner power, practicing deep listening, assertiveness & managing stress. Further they progressed to Interaction Competencies & Skills including verbal & nonverbal communication skills, influencing skills, managing conflict & managing

time. Intervention Skills and Competencies like speaking responsibly, team building, decision making, resilience & stages of leadership helped in developing capacity to manifest one's full potential.

The YLPS course has benefitted students to be aware of self and sensitive towards others present around. They displayed actions through which it was evident how they respect others views and worked together as a team. It has thoroughly been a transformational journey for the students.

❖ **FINANCIAL LITERACY**

Financial Literacy is the combination of financial knowledge, skills and attitude and behavior necessary to make effective financial decision based on individual circumstances in order to have financial well-being.

With the expansion of banking services and incorporation of technology, the financial transactions have increased in the recent time. It has become necessary for students to understand basic money management skills like living within a budget, credits debt in the current consumer society to operate various transactions on online shopping, e-commerce sites, internet banking and in day-to-day consumption activities.

Students gained insights on various concepts like basics of Banking, Mutual Funds, Capital Markets, and Insurance. They thoroughly enjoyed doing the project work.

❖ **INTRODUCTION TO ENTREPRENEURSHIP**

This is an introductory module designed for all the students. This course provides an opportunity for the students to appreciate and understand the core of entrepreneurship. The topics covered include: understanding of the self, goal setting, working in team, and key process in entrepreneurship. The core process in entrepreneurship and an individual's journey to entrepreneurship/decision to become an entrepreneur is introduced by creating an environment of experiential learning through games, role plays and field works. This course gave clear understanding on what is really required and what approach one must have while considering to start his/her own venture.

❖ **ENGLISH COMMUNICATION**

English for Communication is a multi-level course in English for young adults. The course covers the four skills of listening, speaking, reading, and writing. The primary goal of the course is to develop in the learners an ability to communicate effectively and to be able to use language for real-life functions.

❖ **LEGAL LITERACY**

Legal literacy is a short course that is useful in developing a basic understanding of the Indian legal system and laws, as would apply to an ordinary person. It is extremely important in empowering the students with basic rights and enlisting their involvement in ensuring rule of law and good governance. Topics covered include amongst others Nature of the Indian Legal system, Basics of criminal law, juvenile law, consumer and contract laws, labour laws and RTI.

❖ ANALYTICAL SKILLS

Data analysis and interpretation of data to take meaningful decisions is an essential skill irrespective of stream, domain of work or skill level. It is a cross-functional skill that may be applied across manufacturing, services, infrastructure or any other type of industry, whether for employment or for entrepreneurial ventures. The Analytical Skills module covered topics such as Data analysis, Data interpretation, Probability, Permutations and Combinations and so on. This session was highly appreciated by the students.

❖ EMPLOYABILITY SKILLS

These skills are necessary for getting, keeping and being successful in a job. Some of the topics that will be covered here are – Communication, Teamwork, Problem solving, Initiative and enterprise, Planning and organizing, Self-management, Learning, Technology, CV writing, Group discussions, how to face interview, public speaking, presentation skills etc.

Students gained and enjoyed the activity-based sessions. Various topics like Decision Making, Negotiation Skills, Creative Thinking, Resume Writing, Interviews etc. were covered.



ASSESSMENT For Batch - I

The final assessment for Batch - I was scheduled on July 7, 2019 (Sunday)



✚ PROGRESS SO FAR - BATCH II:

S.NO	SESSION NAME	TRAINER NAME	COMPLETION STATUS
1	Youth Leadership & People Skills	Ms. Khushboo Mehta	Complete
2	Introduction to Entrepreneurship	Prof Satyajit Majumdar	In progress

✚ WORKSHOPS AND SEMINARS

- ❖ **September 28, 2018:** NUSSD and FCRIT organized a special expert session on 'Entrepreneurship – Whys & Hows' for the NUSSD students of FCRIT on 28 September, 2018. The session was conducted by Prof. Satyajit Majumdar, School of Management and Labour Studies at TISS and his colleague, Mr. Raviraj Durwas, Program Manager, School of Management and Labour Studies at TISS was also the co – facilitator of the session. The session was attended by undergraduate students from the second and third year of IT, Mechanical, Elect, Comp. Science from FCRIT.



❖ **February 09, 2019:** A series of workshops were conducted by eminent speakers at Fr. C.R.I.T College. Students from NUSSD batch I & II attended the session.

- ❖ Session I: English Communication by Prof. Vineeta Dwivedi from S P Jain Institute of Management & Research
- ❖ Session II: Legal Literacy by Dr. D.K Sonawane, Faculty of LLM from University of Mumbai. He was a former Judge.
- ❖ Session III: Performance evaluation/ Appraisal in organizations by Mr. Tanmay Nayak, Director, NUSSD.
- ❖ Session IV: Technology disrupting the HR function by Mr. Bipin Shrestha, Cluster (Product) Head, TCS Chroma Product.



FEEDBACK FROM THE STUDENTS



Sumedha Mukherjee

The one-day workshop conducted in February was beautifully executed to bring together research and experience. I appreciate getting the chance to interact with professionals from various disciplines. I found it really insightful and interesting. The workshop was also very interactive, which profited all the participants enormously. Thank you TISS for this wonderful opportunity.



Harman Rayat

Being an engineering student is a tough job. The assignments and projects coupled with weekly tests take a toll on you and slowly starts to wash away your interactions with other people. These sessions and workshops definitely helped me to figure out more about myself and helped me boost my confidence by making me interact with people I have never spoken to before and also encouraged public speaking. I can certainly say that joining TISS has been a great experience.



Vaibhav Tiwari

The sessions on Analytical skills and Employability skills were well organized. Topics on Resume Building provided a great insight to the fine points to be considered while building one. Mock interview held during the session emphasized on the etiquettes to keep in mind while going for interviews. Aakash Sinha Sir made the sessions interactive which made the learning process more effective.



Vaidehi Shelar

The sessions on Analytical & Employability skills were really helpful. Aakash Sinha sir made the sessions very interactive and interesting. The activities helped us understand and enjoy the topics better. Overall it was a good experience.



Marlyn Binu

TISS conducted one of the best workshops that I have ever attended. It was a proper blend of Public Speaking Skills, Indian Judiciary & Financial Management that a youth of this country should know. I got tons of knowledge out of this workshop and I am leaving inspired and confident!



Rounil Sharma

The session on Entrepreneurship was very insightful & interactive. The examples presented were easy to relate to current trends of being an Entrepreneur. The concept of understanding the market, being an observer, listening to customer needs, humility in your work were just some of the virtues that made the session enlightening. It was a pleasure to have Prof. Satyajit Sir and Mr. Raviraj Durwas Sir to let us take a peek in the world of Entrepreneurship.



Akhil. M.V

I found the session on Entrepreneurship very useful. I especially liked the example about Thomas Edison's Bulb and the strategy to collaborate with GE. It was an eye opener that an entrepreneur must focus on needs fulfillment rather than focusing on the product itself.

FCRIT – BATCH – I

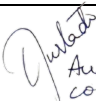
SR. NO.	NAME OF STUDENTS	STREAM
1	ELVIS D'COSTA	IT-6
2	ROUMIL SHARMA	IT-6
3	LASYA VADA PALLY	IT-6
4	VAIBHAV SUVARNA	IT-6
5	SARVESH TULAPURKAR	IT-6
6	TANYA SERAH JACOB	COMP-4
7	ANNIE GRACE	COMP-4
8	KRANTI SHINGATE	COMP-4
9	VAIDEHI SHELAR	EXTC
10	VAIBHAV TIWARI	EXTC
11	AKHIL M.V.	EXTC
12	MERIN JOSE	EXTC
13	REEMA ANNE ROY	EXTC
14	TIASHA	EXTC
15	ASHELY	EXTC
16	KOUSHIK R.	EXTC
17	JOBIN SAMSON	EXTC
18	GYANDIP MALLHI	COMP-6
19	GURVIR SINGH	IT-4
20	ARYA KULKARNI	COMPS-4
21	ASHRIEL SAMSON	COMPS-4
22	MAITREYEE NILESH LIKHITE	EXTC-4
23	HUMERA R KHAN	EXTC-4
24	VARSHA KESAVAN	EXTC-6
25	MANIKANDAN	ELEC-4
26	KEYUR SANGWAI	MECH-4
27	AGNEL THOMAS	MECH 6
28	RENJU JOSE	MECH 6
29	ROHAN JOHN	MECH 6

30	JOEL THOMAS	MECH 6
31	KEVIN JISSO	MECH 2
32	JOHN ROY	MECH 2
33	KELVIN ANTONY	MECH 4
34	NAEEM NIYAZ AHMED PATEL	COMPS-4
35	MELVIN MONCY JOSEPH	MECH 4
36	JINI ELIZABA BIJU	EXTC
37	TANVI DHAKATE	IT
38	GLANDA MENDEZ	IT

Quilts
AUDREY CORREA
COORDINATOR

FCRIT – BATCH – II

S.NO	NAME OF STUDENTS	STREAM
1	EMMANUEL VAZ	MECH
2	VINEET ABRAHAM	MECH
3	RISHI AGARWAL	MECH
4	CINERITA ANDRADES	MECH
5	HEMANT AGARWAL	MECH
6	ABHISHEK PANDEY	MECH
7	MARLYN BINU	MECH
8	ADITYA MANE	MECH
9	SPANDAN BHATTACHARYA	MECH
10	TANAY IYER	MECH
11	JOSE CHIRAMEL	MECH
12	TRAYAMBAK GOUR	COMPS
13	CYNTHIA PATIL	EXTC
14	PRANAV DEEPAK	EXTC
15	AKANSHA CHANDEVAR	EXTC
16	VINISH LOUIS	IT
17	SUMEDHA MUKHERJEE	IT
18	NIKITA SURYAVANSHI	IT
19	NIKUNJ GAONKAR	IT
20	HARMANJYOT GAUR RAYAT	IT
21	SAKSHI KHOSE	IT
22	PRATHAMESH NERKAR	IT
23	ANIKET GHODINDE	IT
24	VARAD MORE	IT
25	MERIN ABRAHAM	IT
26	DAVID SASHA FRANKLIN	IT
27	KAUSHIKI SHARMA	ELEC
28	NIKITA BHOLE	ELEC


AUDREY CORREA
COORDINATOR



Agnel Charities'

Fr. C. Rodrigues Institute of Technology, Vashi, Navi Mumbai.

Academic Year
2017 - 2018



Agnel Charities'

Fr. C. Rodrigues Institute of Technology, Vashi, Navi Mumbai.

Embedded Systems Designing Programme



Brief Activity/Event Report

1. Name of the Activity/Event : Summer Training Program 2018 - EMBEDDED SYSTEMS
2. Activity/Event Venue & Date : 18 JUNE 2018 - 29 JUNE 2018
3. Nature of Participants : Students of FCRIIT / Staff of EXTC DEPT
4. Number of Participants : 22 (20 STUDENT , 02 STAFF MEMBER)
5. Student Coordinator :-
6. Staff Coordinator : Mrs. Pranali Choudhari
7. Brief Summary of the Activity/Event (in maximum 500 words):

a. Objectives :

The program aims to bridge the gap between theoretical knowledge and hands-on practical learning. Students will be benefitted from the experience and knowledge that they will take away from this program and it would also help them in their further academics as well as career aspects. The program provides a leap in the students' learning, boosts their confidence in applying what they've learnt in creating applications that benefit the society and help them to grow as an engineer. Also, students will get a good grip on programming their systems.

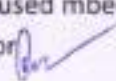
b. Technical Description :

The 10 day program based on embedded systems involved detailed learning about Embedded Systems, its history, basic concepts and its applications in real world. Students also learnt about Microcontrollers w.r.t embedded systems, their difference from Microprocessors and the need to learn about them. The program also involved basics of Python programming, a language which is most widely being used in the upcoming development industries.

SOFTWARE PLATFORM USED FOR PROGRAMMING: MBED (mbed.com)

Mbed is a free online compiler used for writing and compiling programs for embedded systems and boards. It provides a well arranged environment to develop and save codes and also upload/download project codes. It also contains provisions to import libraries and use them as well as provide information about various embed boards and their specifications. It is the perfect environment to develop embedded systems projects and hence, throughout the course period, we have used mbed.com for training.

Student Coordinator _____

Staff Coordinator 

HOD 
24-1-19



SOFTWARES USED :

C++ for Mbed programming.

HANDS-ON PRACTICALS:

1. Printing onto LCD, manipulating the format of printing, scrolling alphabets, importing TextLCD library.
2. LDR used for detecting light intensity and switching led on or off accordingly, while displaying intensity values on LCD.
3. Accelerometer: The built in accelerometer on KL25Z used to detect flatness of a surface, changing LED color on each different axis, while also displaying the axis values on LCD. Importing the necessary libraries also taught.
4. Touch Sensor: Built in touch sensor on KL25Z used to detect touch and change LED output for each touch detected on different portion of the touchpad.
5. Blinking LED in different colors and time intervals.
6. Ultrasonic sensor used to find distance, and displaying the distance on LCD.
7. PIR to detect intervention.

FINAL PROJECTS FOR PRACTICAL EXAM:

- ✓ Calculator using Matrix Keypad with Mbed board.
- ✓ Human Intervention detection using PIR and buzzer alarm for alerting.
- ✓ Temperature and humidity monitoring using DHT11 sensor.
- ✓ Controlling The Intensity And Tone Of Buzzer Using Accelerometer.
- ✓ Detecting temperature using LM35 sensor and tuning motor speeds low, mid and high accordingly to drive a fan.
- ✓ Data acquisition sensors: ultrasonic sensor and PIR

Outcomes:

At the end of the course, Students will be able to:

1. Gain detailed knowledge about embedded systems, its requirements and applications.
2. Learn the basics of programming
3. Learn programming in C++.
4. Get to know different microcontroller boards, their specifications and applications.
5. Learning to read datasheets and reading pin configurations to identify pins on the board.
6. Learning about various peripheral sensors, electronic communication and its protocols, and connections.

Student Coordinator

Staff Coordinator

HOD



7. Studying important basics of sensor functioning, like accelerometer.
8. Learning to import libraries and use the predefined functions to ease coding.
9. Building real, live and useful projects and working as a team.
10. Learning about microprocessors.
11. Gaining confidence to build bigger, more complex projects and presenting it to an audience.


Summary of Feedback : Attached along with


Action to be Taken based on Feedback:

Amendment in the course contents need to be done such as Inclusion of Raspberry Pi, and projects on them

Activity / Event Photograph :




Student Coordinator


Staff Coordinator


HOD



F. C. Rodrigues Institute of Technology

Department of Electronics & Telecommunication Engineering


Sector - 9A, Vashi, Navi Mumbai - 400 703, INDIA.

Telephone: 022-2777 1000, 2766 1924, 2766 0618. Fax: 2766 0619

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Student Coordinator


Staff Coordinator


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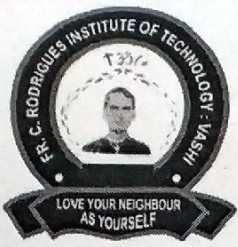
Academic Year
2016 - 2017



Agnel Charities'

Fr. C. Rodrigues Institute of Technology, Vashi, Navi Mumbai.

Certified Ethical Hacking Programme



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Sector - 9A, Vashi, Navi Mumbai – 400 703, INDIA.

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Report on Certified Ethical Hacking Course

1. Name of the Activity/Event : CEH Training
2. Activity/Event Venue & Date: 3/3/2017 – 12/3/2017
3. Nature of Participants : Students of Computer & IT Department
4. Number of Participants : 20
5. Student Coordinator : Mr. Alok Chilka
6. Staff Coordinator : Mrs. Shweta Tripathi/Mr. Mritunjay Ojha
7. Brief Summary of the Activity/Event (in maximum 500 words):
 - a. Objectives : To create awareness and train students technically on Ethical Hacking
 - b. Technical Description : The course was planned based on the syllabus of EC Council for CEH V9
8. Outcomes : All 20 students were certified by EC Council as Ethical Hackers
9. Activity / Event Photograph :



Student Coordinator

Staff Coordinator

HOD



Agnel Charities'

Fr. C. Rodrigues Institute of Technology, Vashi, Navi Mumbai.

Academic Year
2015 - 2016



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Fr. C. Rodrigues Institute of Technology, Vashi, Navi Mumbai.

Embedded Systems Design on MSP 430 Programme



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Brief Activity/Event Report

1. Name of the Activity/Event : Workshop Training Program 2015 - "EMBEDDED SYSTEMS Design on MSP 430"
2. Activity/Event Venue & Date : 10- 13 September 2015
3. Nature of Participants : Students of FCRIT / Staff of EXTC DEPT
4. Number of Participants : 32 (31 STUDENST , 01 STAFF MEMBER)
5. Student Coordinator :- Nadar Prince
6. Staff Coordinator : Yogesh Chandurkar

7. Brief Summary of the Activity/Event (in maximum 500 words):

This course was conducted by Gill Instruments (GI) - a Texas Instruments 3rd Party providing Design and Training services on MSP 430 Product Family (TI), a private limited company having its office at Plot No 110-0/1, Opp. Hotel Radha Regent, 1st Phase, Electronic City, Bangalore - 560100 represented by Mr. Gurjeet Gill, as Director.

In coordination with Prof. Yogesh Chandurkar, Assistant Professor, EXTC deptt., FCRIT Vashi.

a. Objectives :

The program aimed to bridge the gap between theoretical knowledge and hands-on practical learning on microcontroller based systems. Students benefit from the experience and knowledge they take away from this program and it would also help them in their further academics as well as career aspects. The program provides a leap in the students' learning boosts their confidence in applying what they've learnt in creating applications that benefit the society and help them to grow as an engineer. Also students would get a good grip on programming concepts of embedded systems.

b. Technical Description :

The 4 day program based on embedded systems involved detailed learning about Embedded Systems, its history, basic concepts and its applications in real world. Students also learnt about Texas Microcontrollers MSP 430 w.r.t embedded systems, their difference from Microprocessors and the need to learn about them. The program also involved basics of embedded C, Assembly

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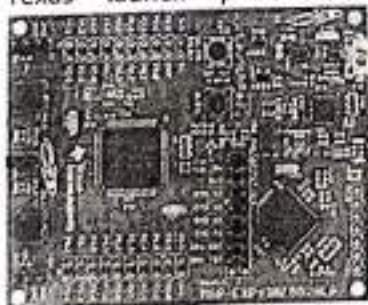
coding for critical section and modular programming using CCS (Code Composer Studio) used in industries, and using it to learn some application based projects on MSP 430. Some the sample case studies taken are - single phase energy meter, digital thermometer, RTC, speedo meter and finally application of MSP 430 to wireless sensor network, field of agriculture, building automation, bio-medical instrumentations, Embedded Web Server.

SOFTWARE PLATFORM USED FOR PROGRAMMING: MSP 430 (Texas kit-Launch pad)

TI's Launch pad kit based on MSP 430 is a used as development kit (MSP430F5529 USB LaunchPad Evaluation Kit) for programming and system design. It provides a well arranged environment to develop and save codes and also upload/download project codes. It also contains provisions to import libraries and use them as well as provide information about various embed boards and their specifications. It is the perfect environment to develop embedded systems projects and hence throughout the course period we have used TI's launch pad for training.

HARDWARE DEVICES USED AND VARIOUS COMPONENTS:

1. Texas launch pad-MSP 430 kit.
2. 16 x 2 Character LCD : A basic LCD to display outputs of the program from KL25Z.



3. Ultrasonic Sensor: Ultrasonic sensors measure distances based on transmitting and receiving ultrasonic signals.
4. PIR: A passive infrared sensor (PIR sensor) is an electronic sensor that measures infrared (IR) light radiating from objects in its field of view.



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5. LDR: An LDR is a component that has a (variable) resistance that changes with the light intensity that falls upon it. This allows them to be used in light sensing circuits.
6. DHT 11: DHT11 is a commonly used Temperature and humidity sensor.



7. LM35 Temperature Sensor: The LM35 series are precision integrated-circuit temperature devices with an output voltage linearly-proportional to the Centigrade temperature.
8. Matrix Keypad: A Matrix keypad is the most commonly used input device in many of the application areas like digital circuits.



SOFTWARES USED :

1. Embedded C for launch pad programming.
2. Proteus for circuit simulation
3. CCS (Code composer studio)

HANDS-ON PRACTICALS:

1. Printing onto LCD, manipulating the format of printing, scrolling alphabets, importing Text LCD library.
2. LDR used for detecting light intensity and switching led on or off accordingly, while displaying intensity values on LCD.

Student Coordinator

Staff Coordinator

8E1
HOD



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3. Accelerometer: The built in accelerometer on KL25Z used to detect flatness of a surface, changing LED colour on each different axis, while also displaying the axis values on LCD. Importing the necessary libraries also taught.
4. Blinking LED in different colours and time intervals.
5. Ultrasonic sensor used to find distance, and displaying the distance on LCD.
6. PIR to detect intervention.

Some hands-on examples executed:


- ✓ 4line LCD interfacing
- ✓ Timer programming
- ✓ Efficient interrupt handling.
- ✓ Interfacing matrix Keypad
- ✓ Human Intervention detection using PIR and buzzer alarm for alerting.
- ✓ Temperature and humidity monitoring using DHT11 sensor.
- ✓ Detecting temperature using LM35 sensor and turning motor speeds low, mid and high accordingly to drive a fan.
- ✓ Accelerometer interfacing.

Outcomes :

At the end of the course, Students will be able to :

1. Gain detailed knowledge about embedded systems, its requirements and applications.
2. Learn the basics of programming, its types and API style of programming.
3. Learn programming in embedded C.
4. Get to know different micro-controller boards, their specifications and applications.
5. Learning to read datasheets and reading pin configurations to identify pins on the board.
6. Learning about various peripheral sensors, electronic communication and its protocols, and connections.
7. Studying important basics of sensor functioning, like accelerometer.
8. Learning to import libraries and use the predefined functions to ease coding.
9. Building real, live and useful projects and working as a team.
10. Learning about micro-processors.
11. Setting up CCS (code composer studio).

Student Coordinator


Staff Coordinator


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Fr. C. Rodrigues Institute of Technology
Department of Electronics & Telecommunication Engineering

Sector - 9A, Vashi, Navi Mumbai - 400 703, INDIA.
Telephone: 022-2777 1000, 2766 1924, 2766 0618. Fax: 2766 0619
Website: www.fcrit.ac.in

12. Gaining confidence to build bigger, more complex projects and presenting it to an audience.

Summary of Feedback : Attached along with
PO5, OPO10 and PO12 are getting mapped with this course and based on feedback the attainment level for the above PO's is 3.

Action to be Taken based on Feedback:

Activity / Event Photograph :



Student Coordinator

Staff Coordinator

HOD



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SEA
HOD

TI India university program

Feedback form



TI university program
technology for tomorrow's innovators

TI India university program
www.ti.com/univ-in

Forging Relations between
Indian Universities &
Texas Instruments

www.ti.com/univ-in

Thank You
for your valuable
feedback!

*We need your feedback! Thanks for
taking five minutes of your time to
complete this form. Please hand it back
to the instructor after you fill it out.*

A handwritten signature in black ink, appearing to be 'J.P.' or similar, written in a cursive style.

A - Please introduce yourself

- Name
Nadar Prince
- Profession (Student/Faculty/Others)
Student
- Department
EXTC
- Organization
FR. Agnels
- Email Id
nadarprince4@gmail.com
- Mobile Number
9404178085
- Do you wish to be placed on the mailing list and receive product information from TI? Yes or No
Yes

B - Description of the event you attended

- Title of the Event
MSP430
- Date
13th September
- Venue
Fr. Agnels
- How did you come to know about the event?
 - Through TI mailing list
 - Through the institution where the event is held
 - Through TI's University Partners
 - Through TI University Program website
 - Other - Please specify

C - Feedback on TI India university Program

- How do you keep in touch with TI India University Program (Tick one or more)?
 - TI India University e2e Zone
 - E-newsletter
 - TI University Program Website
 - TI's University Partners
 - Email/Phone calls
 - TI India Facebook
 - Other
- How often do you visit TI University Program website?
 - Not aware of website
 - Rarely
 - Once in a year
 - Once a quarter
 - Every month
 - Weekly/more Frequently
- How often do you visit TI Website?
 - Not aware of website
 - Rarely
 - Once in a year
 - Once a quarter
 - Every month
 - Weekly/more Frequently
- Which TI product are you using currently (Tick one or more)
 - DSP
 - MSP430
 - C2000
 - Stellaris/Hercules
 - Analog
 - Low Power Wireless
 - Sitara MPU
 - Other
- How do you rate our communication [e-Newsletter, Website, TI India Facebook, TI University Program Group on TI e2e community, Blogs & Twitter]?
 - I have not used them
 - Don't find them useful
 - Not sure
 - Sometimes read about TI Technologies and projects
 - Very good. Helping in improving teaching / learning skills
 - Excellent. Helps in improving R&D skills

- How TI India University Program is helping you in your profession? Please Comment
(Feel free to send e-mail to univ-feedback@list.ti.com)

D – feedback on the event you attended

- Comment on the relevance and information content of the event
 1. Can be better
 2. Not sure
 3. Good
 4. excellent
- Comment on the instructor's knowledge and explanations
 1. Can be better
 2. Not sure
 3. Good
 4. excellent
- Was the instructor open to Q&A?
 1. Can be better
 2. Not sure
 3. Good
 4. excellent
- Were the hands-on lab sessions satisfactory? (if applicable)
 1. Can be better
 2. Not sure
 3. Good
 4. excellent
- Please comment on the arrangements
 1. Can be better
 2. Not sure
 3. Good
 4. excellent
- Do you think registration fee for this event / workshop seminar / conference is
 1. Too High
 2. Not Sure
 3. Too Low
 4. Reasonable
- Tell us about two things that you liked about the event
 ___MSP430 is an excellent processor
 Things i liked were hands on experience and simplicity of the development board.

- Tell us about two things that could be done better
 Make us do more activities _____

For your future reference

The TI India University Program helps the educators and engineering student community from Indian Universities to achieve more in their research and learning initiatives



TI university program
 technology for tomorrow's innovators

Our activities include:

1. Setting up MCU, MPU DSP, Analog and LPRF Labs in universities with the help of our educational partners
2. Communicating with Universities through-
 - o **Monthly e-Newsletter** is sent to over 5000 subscribers including faculty, students and industry partners (To subscribe log on to www.ti.com/univ-in)
 - o **TI India University Program Website (www.ti.com/univ-in)** – log on to download previous issues of Newsletter, e-newsletter, Teaching/Learning Material, Books, get updates on upcoming university events/contests, get access to blogs, interview of experts from industry, view videos on latest TI Technologies and lot more.
 - o **Texas Instruments India face book page** – join us on Facebook to find about company new, our activities and opportunity to get connected with other fans of TI TO DISCUSS and share information regarding TI.
 - o **TI University Program Group on TI e2e community (<http://e2e.ti.com>)** – visit the TI university group to read blogs from experts and to follow discussions
3. Organizing University Events
 Visit event calendar on www.univ.in/events to know our upcoming events.
4. Organizing student contest and conferences
5. Developing Teaching Aids

6. Provide assistance in teaching courses on TI Technology.

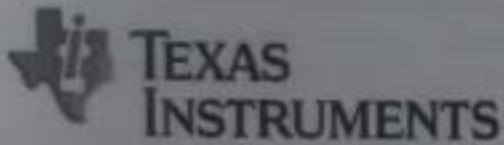
TI product Information center (PIC)
PIC India -1-800-425-7888

Contacts:

Dr.C.P.Ravikumar, Director University Relations,
TI India

Email Id - rvikumar@ti.com

Contact no. 080-25099727



Your feedback will be kept
confidential...

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Community
empower the engineer,
solving problems
e2e.ti.com

"Positive Feedback makes the strong
grow stronger and the weak grow
weaker"

-Carl Shapiro

"Negative Feedback is better than
none"

-Hugh Prather