

Innovations by the Faculty in Teaching and Learning (ECE Department @RCCIIT, Kolkata)

SL. No	Pedagogical Methods	Sample Activities
1.	<p>Method :</p> <p style="text-align: center;">Flipped Classroom</p> <p>Faculty :</p> <p style="text-align: center;">Mrs. S. Saha Assistant Professor</p> <p>Sem : 4th Sem Course Code/Course: EC403 Microprocessor and Micro controller</p> <p style="text-align: center;">And</p> <p>Sem : 3rdSem Course Code/Course: EC 302 Digital System Design</p>	<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <p>https://physicsteacher.in/microprocessor-tutorials-hub/</p> <p>The Architecture of 8085 and 8086 – Questions & answers</p> <p>In this post, we will answer a bunch of selected ...</p> <p style="text-align: center;">Continue Reading</p> <p>Memory organization in 8086 microprocessor</p> <p>After studying this article the readers will be able to ...</p> <p style="text-align: center;">Continue Reading</p> <p>Interrupts in 8086 Microprocessor</p> <p>In this post, we will build our concepts on the ...</p> </div> <div style="width: 48%;"> <p>https://physicsteacher.in/digital-electronics-hub-of-related-posts/</p> <div style="display: flex;"> <div style="width: 48%;"> <p>Design steps of 4-bit asynchronous up counter using J-K flip-flop</p> <p>In this post, we will discuss the Design steps of the 4-bit asynchronous up counter using J-K flip-flops. In a binary counter, if flip-flops do not change states in exact ...</p> <p style="text-align: center;">Continue Reading</p> <p>Latch, Flip-flop, and Counter</p> <p>This post covers Latch, Flip-flop, and Counter with a set of questions and answers. These three topics are very important for digital electronics students. What is the difference between combinational ...</p> <p style="text-align: center;">Continue Reading</p> </div> <div style="width: 48%;"> <p>Design steps of 4-bit (MOD-16) counter using J-K flip-flop</p> <p>In this post, we will discuss the 4-bit (MOD-16) synchronous the J-K flip-flop. We will start with a few related questions ...</p> <p style="text-align: center;">Continue Reading</p> <p>Flip-flop Types, Logic symbol Applications – study note</p> <p>The basic building block for digital circuits is the flip-flop. Logic gates are divided into two groups. One is combinational using AND, OR, and NOT gates ...</p> <p style="text-align: center;">Continue Reading</p> </div> </div> </div> </div> <div style="margin-top: 20px;"> <p style="text-align: center;">Online study material</p> <p>Faculty: Mrs. Saraswati Saha</p> <p>Digital Electronics articles:</p> <p>https://physicsteacher.in/digital-electronics-hub-of-related-posts/</p> <p>Microprocessor and Micro controller article:</p> <p>https://physicsteacher.in/microprocessor-tutorials-hub/</p> </div>
		Study material is made available in online mode through website to the students prior to teaching.

2.

Method:
Interaction with outside world

Faculty:
Dr. A. Deyasi,
Assistant Professor

Mode:

Guided students to participate in different competition such as Bengalathon, Big Dream championship, etc.

Awards in Bengalathon



Team from Dept. of IT in 2018 (Harshit Anand Gupta, Bidisha Mondal, Ritwika Banerjee, Avijit Das, Hozifa Wahid) under the mentorship of Dr. Abhijit Das reached National level final round and won **Juri's Special Award**

Team from Dept. of ECE in 2019 (Shalini Sil, Subhomoy Daw) reached National level final round and became **Winner in Group C**

Award in Bengalathon


Internships received from Internshala

More than **100** students of different cadre have received **Internships from Internshala** in **last 2 years (July 2018 – July 2020)** which is an measurement of reflection and appreciation of their knowledge, and are primarily suitable for industry-relevant work

Internships may be performance-based upto a considerable amount

Internship received from Internshala

Student Participation at Science and Engineering Fair (SEF)



Year	No. of teams in Final round	Status
2020	03	One team from Dept of IT awarded Merit Certificate
2019	03	One team from Dept of ECE awarded Merit Certificate
2018	02	One team from Dept of ECE awarded Merit Certificate

Participation at Science and Engineering Fairs(SEF)

Student Participation at Big Dream Championship (Internshala) in the year 2019



Team from ECE Department (comprises of Shalini Sil, Subhomoy Daw, Amrita Sengupta) was selected for final round (only 10 teams are selected in All India Level)

Received 3rd Prize in All India Level

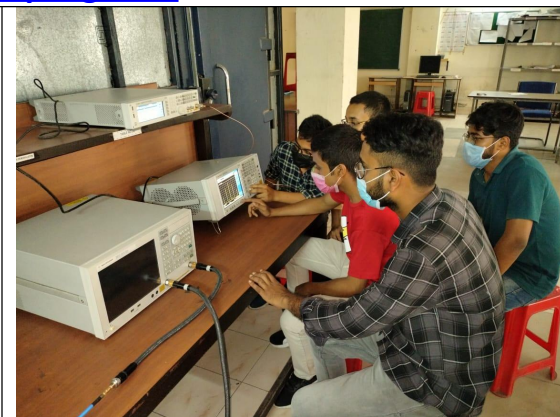
Student Participation at Big Dream championship

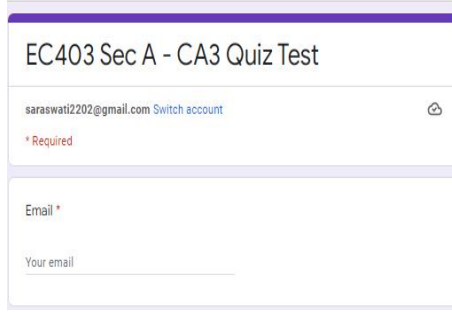
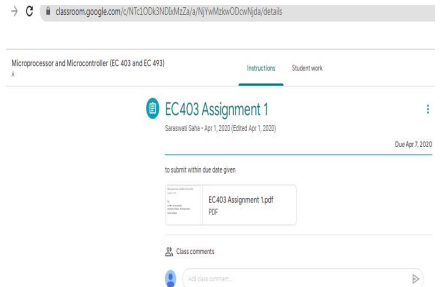
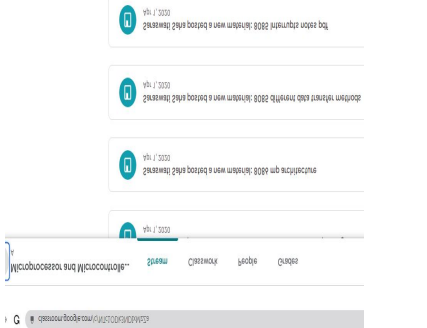



Details of student participation in different competition
Link: <https://www.youtube.com/watch?v=xPJpUJg3hka>

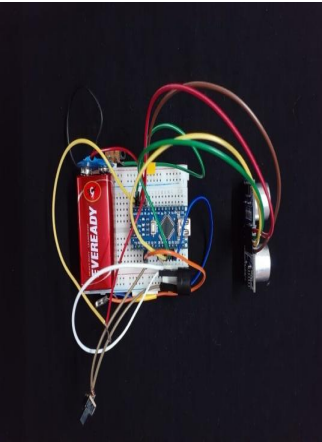
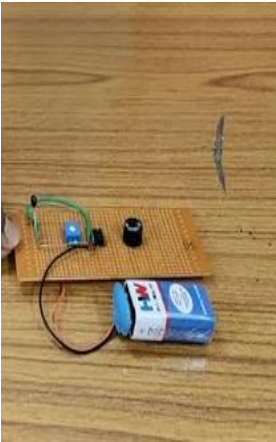
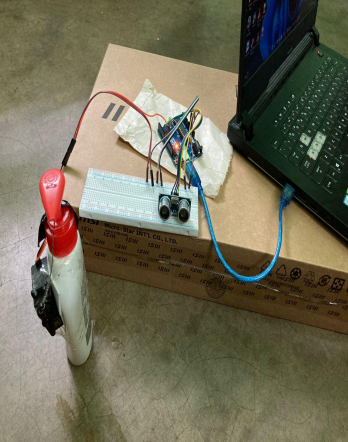

Method :
DEMONSTRATION THROUGH WORKING MODELS
Mode:
Live demonstration
Faculty :
Mr N. Bhattacharya
Assistant Professor

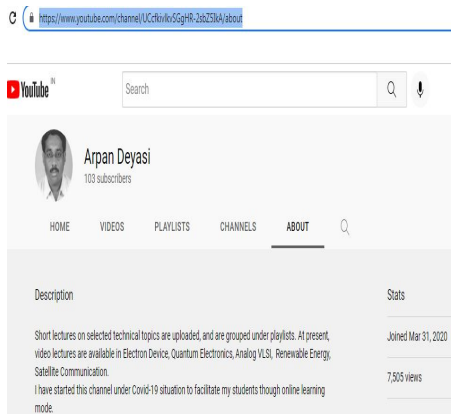
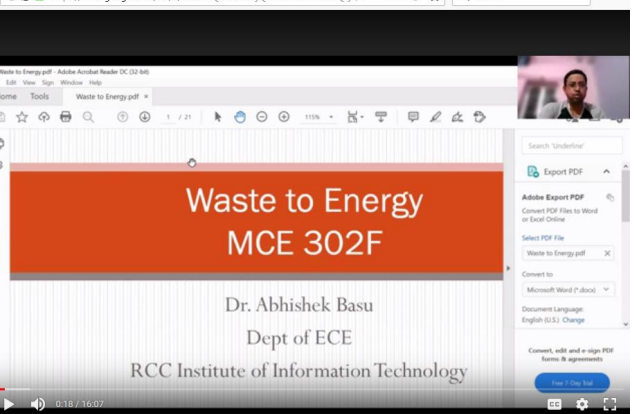

The students of second year were taken to explain about the principles of working of Digital Storage Oscilloscope by Asst. professor Mr.Nandan Bhattacharya. Also they were shown different types of waveform and measuring the various parameters.

Demonstration Video Link:
https://drive.google.com/drive/folders/1tA-Du5Hxlt51cHLfZlqCGj0c8VCyu_70



<p>4.</p>	<p>Method : GOOGLE CLASS ROOM</p> <p>Mode: QUIZ/ASSIGNMENT</p> <p>Faculty : Mrs. S.Saha Assistant Professor</p> <p>Sem : 4th Sem Course/Course Code: EC403 Microprocessor and Micro controller</p>	 <p>EC403 Sec A - CA3 Quiz Test</p> <p>saraswati2202@gmail.com Switch account</p> <p>* Required</p> <p>Email *</p> <p>Your email</p> <p>Taking Quiz for continuous assesment . Posted Assignmentmt</p>	 <p>classroom.google.com/c/NT1c00k3ND6mZ2iA/N/YwMxwC0oaJgda/details</p> <p>Microprocessor and Microcontroller (EC 403 and EC 493)</p> <p>EC403 Assignment 1</p> <p>Sessons Sats - Apr 1, 2022 (Ended Apr 1, 2022)</p> <p>Due Apr 1, 2022</p> <p>To submit within due date given</p> <p>EC403 Assignment 1.pdf</p> <p>Class comments</p> <p>add class comment</p> <p>Students are made to join as members of the Google class room. Study materials, Assignments, Quiz questions are posted in the app.</p>	 <p>Posted Study materials.</p>
<p>5.</p>	<p>Method :</p> <p>E-Learning:</p> <p>Mode : NPTEL/UDEMY/ COURSERA</p>	 <p>NPTEL Online Certification (Funded by the MHRD, Govt. of India)</p> <p>This certificate is awarded to VARSHA CHOWDHURY for successfully completing the course Air Pollution and Control with a consolidated score of 73 % Online Assignments 25/25 Proctored Exam 48/75 Total number of candidates certified in this course: 5166</p> <p>Jan-Apr 2022 (12 week course)</p> <p>NPTEL Online Certification (Funded by the MHRD, Govt. of India)</p> <p>This certificate is awarded to BANITA DAS for successfully completing the course The Joy of Computing using Python with a consolidated score of 77 % Online Assignments 25/25 Programming Exam 25/25 Proctored Exam 27/50 Total number of candidates certified in this course: 7438</p> <p>Jan-Apr 2022 (12 week course)</p>	<p>Expected Outcomes: Upgrade the quality of engineering education on tip compatibility & resources for beyond curriculum.</p>  <p>NPTEL Online Certification (Funded by the Ministry of HRD, Govt. of India)</p> <p>This certificate is awarded to SHRUTI CHAKRABORTY for successfully completing the course Developing Soft Skills and Personality with a consolidated score of 83 % Online Assignments 24.17/25 Proctored Exam 59.25/75 Total number of candidates certified in this course: 15357</p> <p>Aug-Oct 2019 (8 week course)</p>	 <p>NPTEL Online Certification (Funded by the Ministry of HRD, Govt. of India)</p> <p>This certificate is awarded to AMIT MANDAL for passing the course Problem Solving through Programming in C with Score* 99 %</p> <p>Jan-Apr 2020 (12 week course)</p> <p>NPTEL Online Certification (Funded by the Ministry of HRD, Govt. of India)</p> <p>This certificate is awarded to ARGHA GOLUI for successfully completing the course Ethical Leadership Through Giving Voice to Values with a consolidated score of 83 % Online Assignments 24.17/25 Proctored Exam 59.25/75 Total number of candidates certified in this course: 15357</p> <p>Aug-Oct 2019 (8 week course)</p> <p>Argha Golui</p> <p>Ethical Leadership Through Giving Voice to Values</p> <p>with a consolidated score of 83 % Online Assignments 24.17/25 Proctored Exam 59.25/75 Total number of candidates certified in this course: 15357</p> <p>Aug-Oct 2019 (8 week course)</p>

<p>6.</p>	<p>Method : WIT & WIL,</p> <p>Mode: Presentation</p>	<p>A presentation is designed and created using ICT tools in order to present the teacher’s perspective (“WIT”) about scenario of the respective subject. The presentation is designed such that it maps every topic of the prescribed syllabus to the real world, in order to give the students a tangible experience of understanding the underlying engineering concepts to perceive for themselves (“WIL”).</p> <p>Course Booklet Link for B.Tech courses available at college website</p> <p>https://rciit.org/academic/download/ece/booklets/1%20st%20year%20course%20booklet%20new.pdf</p> <p>https://rciit.org/academic/download/ece/booklets/2nd%20year%20Course%20Booklet_new.pdf</p> <p>https://rciit.org/academic/download/ece/booklets/3rd%20year%20Course%20Booklet_new.pdf</p> <p>https://rciit.org/academic/download/ece/booklets/4th%20year%20Course%20Booklet_new.pdf</p> <p>Execution Plan: Every faculty has to explain the overview at the commencement of the schedule. Expected Outcomes: Students can understand the objective and outcome of the subjects.</p>
<p>7.</p>	<p>Method : PROJECT ASSIGNMENTS</p> <p>Mode:</p> <p>The students will be given the project topics and made them to present Hardware model and submit the project report in write up.</p> <p>Faculty : Mrs. S.Saha Assistant Professor</p> <p>Faculty : Mrs. A. Banerjee Roy Associate Professor</p>	<p>The students will be given the project topics and made them to present Hardware model and submit the project report in write up.</p> <div style="display: flex; justify-content: space-around;">    </div> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p style="text-align: center;">Smart Blind Stick</p> <p style="text-align: center;"><small>ELECTRONICS AND COMMUNICATION ENGINEERING</small></p> <p style="text-align: center;"><small>By</small></p> <p style="text-align: center;"><small>SABARISHTA SACHINJAN REGISTRATION NO. - 087715 OF 2019-20 UNIVERSITY REG. NO. - 11708130023</small></p> <p style="text-align: center;"><small>SABARINA PAUL REGISTRATION NO. - 086645 OF 2019-20 UNIVERSITY REG. NO. - 11708130027</small></p> <p style="text-align: center;"><small>DIBYAY ROY REGISTRATION NO. - 086006 OF 2019-20 UNIVERSITY REG. NO. - 11708130005</small></p> <p style="text-align: center;"><small>UNDER THE SUPERVISION OF SARASWATI SAKHA Assistant Professor, ECE, RCCIIT</small></p> <div style="text-align: center;">  </div> <p style="text-align: center;"><small>RCC INSTITUTE OF INFORMATION TECHNOLOGY [Affiliated to West Bengal University of Technology] CANAL SOUTH ROAD, BELLAGHATA, KOLKATA - 700015 JUNE - 2022</small></p> <p style="text-align: right;"><small>Page 3</small></p> </div>

<p>8</p>	<p>You Tube VIDEO Faculty: Dr. A. Deyasi, Assistant Professor</p> <p>At present, lectures are available in Electron device, Quantum Electronics, Analog VLSI, Renewable Energy, Satellite-communication</p> <p>Faculty: Dr. A. Basu Associate Professor</p>	 <p>You Tube VIDEO Lecture Link Faculty: Dr. Arpan Deyasi https://www.youtube.com/channel/UCcfkivlkvSGgHR-2sbZ5IkA/about</p> <p>Faculty: Dr. Abhishek Basu VLSI Design lab II: https://bit.ly/3jtaOH0 Digital VLSI Circuits & Systems Unit 6: https://bit.ly/3gQJ Waste to Energy:Unit-1 : https://bit.ly/3kA1kce</p>	
<p>9.</p>	<p>Method : NPTEL VIDEO CLASS ROOM</p> <p>Dr. A. Deyasi, Assistant Professor Guided students for participating in MOOCs courses through NPTEL , Swayam.</p>		<p>Execution Plan: The students who have enrolled for different certification courses can use the infrastructure available in the department/institution during the college timings for completing their courses and some respective faculty members are allotted for supporting them.</p> <p>Time schedule for MOOCs reflected in theclass routine Link for class routine: https://rciit.org/academic/download/ece/routine/odd2021-22.pdf https://rciit.org/academic/download/ece/routine/even2021-22.pdf</p>
<p>10.</p>	<p>EMPLOYABILITY SKILLS</p>	<p>Training on Technical Skills & Soft Skills for awareness and readiness for employability. Hard copy attached for student participation in coding class and soft copy of rest.</p>	