



Heritage Institute of Technology

(An Autonomous Institution)

**Workshops/seminars conducted on
Research methodology, Intellectual
Property Rights (IPR), entrepreneurship,
skill development**



**Heritage Institute of Technology
Department of Mathematics**

Report: Workshop on Mathematical Methods for Machine Learning (MMML-2021), organized by the Department of Mathematics, Heritage Institute of Technology, in association with ORSI, Kolkata Chapter, in online mode (Google meet), on September 20-24, 2021.

The Department of Mathematics, Heritage Institute of Technology, in association with ORSI, Kolkata Chapter, organized a 5-day workshop on Mathematical Methods for Machine Learning (MMML-2021) on September 20-24, 2021 in online mode (Google meet), in which the mathematical concepts that are at the foundations of the techniques and algorithms used in machine learning were discussed. The number of participants in the workshop was 40, which was kept low in order to facilitate effective interaction during the workshop. The backgrounds and levels of participants were heterogeneous where the levels are ranging from 1st year students to Assistant Professors in various universities to research scholars even in foreign universities and the background varies among Mathematics, Physics, Chemistry, Civil Engineering, Computer Science, Electronics Engineering and Pharmaceutical Engineering.

The inaugural session, held on September 20, 2021, was graced by the presence of Prof. Basab Choudhuri, Principal, HITK, Prof. R. N. Mukherjee, Prof. Debabrata Datta and Prof. Subhashis Majumder. They addressed the gathering and thereby set the stage for the proceedings of the workshop.

The four distinguished speakers of the workshop were:

- (i) Prof. Samarjit Kar, Professor, Department of Mathematics, NIT Durgapur and Secretary, ORSI, Kolkata Chapter.
- (ii) Dr. Sandip Chatterjee, Associate Professor and Head, Department of Mathematics, Heritage Institute of Technology, Kolkata.
- (iii) Dr. Dipankar Chakraborty, Assistant Professor and DC, Department of Mathematics, Heritage Institute of Technology, Kolkata.
- (iv) Dr. Sk. Arif Ahmed, Assistant Professor in the School of Computer Science and Engineering, XIM University, Bhubaneswar.

Dr. Souvik Ghosh compèred the proceedings of the workshop.

On September 20, 2021, after the inaugural session, Prof. Samarjit Kar delivered a lecture entitled '*A Basic Introduction to Machine Learning and Data Science*', in which the fundamentals of the subject were discussed. In the second session, Dr. Sandip Chatterjee delivered a lecture entitled '*Basics of Linear Algebra: Matrix Transformations, Eigenvectors,*

Diagonalisation, Orthogonalisation and Gram-Schmidt Process', in which the algebraic background of the subject was discussed in detail.

The probabilistic features of the subject were discussed by **Dr. Dipankar Chakraborty** in a talk entitled '*Review of Probability Theory and Random Variables*', in the first session on September 21, 2021. In the second session, **Dr. Sandip Chatterjee** continued the discussion of algebra in his lecture entitled '*Matrix Factorisation: QR factorisation, Solving Linear Least-square Problems using QR factorisation and Singular Value Decomposition(SVD)*'.

In the first session of September 22, 2021, **Dr. Dipankar Chakraborty** continued the discussion of probability in a lecture whose title was '*Joint Probability Distribution and Regression*'. The title of **Prof. Samarjit Kar's** talk in the second session was '*Optimization Methods for Machine Learning and Data Science*'.

On September 23, 2021, **Dr. Sk. Arif Ahmed** delivered a lecture entitled '*Machine Learning and Deep Learning using Python*' in the first session, and **Dr. Dipankar Chakraborty** discussed the statistical aspects of the subject in the talk '*Regression Analysis*' in the second session.

On September 24, 2021, **Dr. Sk. Arif Ahmed** delivered the second part of his lecture on '*Machine learning and deep learning using Python*'. The title of the lecture delivered by **Dr. Sandip Chatterjee** in the second and final session was '*Convexity and the Gradient Descent Algorithm*'. At the conclusion **Dr. Sandip Chatterjee** gave the vote of thanks, thus bringing the workshop to an end.


(Dr. Sandip Chatterjee) 6/14/10/21

HOD, Mathematics

Heritage Institute of Technology
Mathematics

(MMML-2021) Participant List

Name	Current affiliation	Designation (If student, mention Year/	Expectation from the workshop	Contact number
Praneel Bhattacharya	Heritage Institute of Technology	Student, 1st Year 2nd Semester	To learn some new concepts of the Mathematics behind Machine Learning	7439946182
Tanisha Saha	Shri Shikshayatan College (Calcutta Univer	Student (2nd year, 3rd semester)	To get more interested in mathematics	9830749690
AVIK RAY	MAKAUT	Student (4th Year / 7th Semester)	Understanding various mathematical methods for machine learning.	6290767710
SWAPNIL DEY	MAKAUT	Student (4th Year / 7th Semester)	Understanding various mathematical methods for machine learning	7908366362
Dipika Patra	West Bengal State University	Research scholar	In details machine learning using R programming	8981581849
Atandra Bharati	HITK	1st yr/ 2nd sem	Expecting to learn mathematics to strengthen foundation to machine learning	8768203080
Prithwish Das	Heritage institute of technology kolkata	4th semester	To get familiar with mathematical aspects in machine learning	9330988913
Ananya Priya	Btech student	1 year, 2nd semester	I will get better knowledge about Statistics, Linear Algebra, Probability, and Calcul	7992355993
Koushani datta	B tech	1st year , second semester	A full fledged knowledge of mathematical methods which is required for machine le	93308 66597
Dr. Shubhankar Saha	Sir Gurudas Mahavidyalaya, Kolkata-70006	Faculty, Department of Mathematics	Expecting some interesting lectures on the said topics in Mathematical aspect	8100318383
Agnish Ghosh	Heritage Institute of Technology, Kolkata (Af	1st Year, 2nd Semester.	An extensive knowledge about the mathematical methods used for Machine Learn	+91 9007354697
Somnath Mondal	Jadavpur University	Reserch Scholar	Applications related	8013963374
Amit yadav	Hit	1st year 2nd semester	Experience	8382993281
Mousam Maity	Presidency University	Student, Graduated in 2021 (UG)	Will be able to learn a new thing.	9836800954
Sourav Patra	JIS University	Student 4th year/7th sem	Want to earn knowledge from the workshop about mathematics	9679975743
ABDUL MATIN	B.Sc Honourse	3rd sem	Mathematics learning	9593550346
Shreyasi Chowdhury	Engineering	Student	Hope we will be able to know something about machine learning.	07605870712
Shubham Kumar	Btech student	1 year,2nd semester	I will get better knowledge about Statistics, Linear Algebra, Probability, and Calcul	7479973711
Suchita Gora	Student	1st/2nd	Wish to learn and develop new mathematical techniques in machine learning	8274960603
Sudipta Roy	The Heritage Academy	Assistant Professor	ML development process in reality	9330485776
Jumasri Ganguly	Heritage Institute of Technology [1]	Student	To learn about machine learning	+919330654099
Rituparna Padira	Student at Heritage Institute of Technology	2nd year/ 4th semester	To learn more about the mathematics involved in machine learning	8102048324
Proteen Kr Das	Heritage Institute of Technology Kolkata	Student 1st Year 2nd Semester	Learning about the different mathematical methods applied in ML	9874391502
Madhubrata Bhattacha	The Heritage College	Assistant Professor	Betterment in Teaching	9830322461
Fardeen Hossain Khar	Student	1st year	To gain Knowledge ..	7557841677
Sumangal Sarkar	student	1year	to gain knowledge	7439811648
Arghadip Roy	The Heritage College	Assistant Professor	Want to gain knowledge in Machine learning.	8145378991
DEBORSI BASU	Indian Institute of Technology, Kharagpur, In	Research Scholar	Expecting the fundamental clarity and understandings of ML/AI techniques in the	7278027362
SUMITA BANERJEE	JADAVPUR UNIVERSITY	Post- Doctoral Research Scholar	I want to learn new methods of computer programming and upgrade myself.	7980363893
Ashesh Paul	Department of Mathematics, Techno India U	Assistant Professor	Enhance knowledge in machine leraning	8961001047
Nidhi Dubey	Heritage Institute of Technology	2nd year student	It will help me to learn the mathematics required for learning ML	7488639980
Chitrita Banerjee	Student of Chemical Engineering 1st Year in	2nd Semester	To learn new technologies and enrich my knowledge	9836222250
Tamalisha Sen	Student	1st year, 2nd semester	To have a detailed knowledge on machine learning	9800309226
Somjit Datta	Department of Mathematics, Heritage Instit.	Assistant Professor	An Introduction to Machine Learning	090077 59621
Moumita Pramanik	Faculty in the Dept of Mathematics, HIT, Kol	Assistant Professor	To have in depth analysis of machine learning process using different dynamic m	9051233618
Jyotirmoy Ghosh	Heritage Institute of Technology	Associate Professor	Want to learn underline mathematics of ML algorithms	9434402740

Name	Current affiliation	Designation (If student, mention Year/	Expectation from the workshop	Contact number
Arijit Dey	FAU Erlangen-Nürnberg	Student, 4th Semester	Learn mathematical models to implement Deep Learning in Signal Processing pro (+91) 727826015	9831282440
Sudeshna Goswami	Heritage Institute of Technology, Kolkata	Asst. Professor	To learn mathematics behind machine learning	6205667725
Manish agarwal	Student	3rd	To be able to learn and understand the details behind machine learning algorithms:	8910291453
Neha Rajgaria	Student	4th year	To learn about the stats related to ML	

Sandip Chatterjee
14/10/2021

[Faint, illegible text]

A Report on the Webinar
on
Perspectives of Block Chain and Its Application in Healthcare Industry

A webinar was organized jointly by *Department of Information Technology* and *Department of Computer Applications, Heritage Institute of Technology* on September 25th, 2021, 11 am. The joining link for the webinar was <https://meet.google.com/fsy-iqci-obi>.

Organizing Chairs:

Prof. Siuli Roy, Department of Information Technology, *Heritage Institute of Technology*
Professor Souvik Basu, Department of Computer Applications, Heritage Institute of Technology

Members:

All Faculty & Staff members of Department of Information Technology and Department of Computer Applications, Heritage Institute of Technology

Speaker Name & contact details:

Debabrata Datta
Professor, Heritage Institute of Technology, Kolkata
Former Nuclear Scientist & Head RP&AD
Bhabha Atomic Research Centre
Mumbai – 400085
Email: debabrata.datta@heritageit.edu

Title of the Webinar:

Perspectives of Block Chain and Its Application in Healthcare Industry

Abstract of the Webinar:

Blockchain is a distributed transaction technology that is open but secure and public but at the same time private. It is based on a unique concept an “append only” open ledger. In this open ledger, every transaction that occurs within the network is added to this ledger once authenticated by the nodes in the network. It works on three major principles, such as (1) the transaction is open on the network, (2) the ledger distributed to ensure there is always a copy of the ledger, (3) every new transaction needs to be authenticated for their addition to the chain. Consensus algorithm is one of the algorithms that is implemented in Blockchain always. Blockchain has a wide range of applications and uses in healthcare. The ledger technology facilitates the secure transfer of patient medical records, manages the medicine supply chain and helps healthcare researchers unlock genetic code. Purpose of Blockchain can be well understand using consensus algorithm. Consensus algorithm in general is framed as a decision

making process where a group of people express their individual opinions to construct the decision which provides a best estimate of a process or system. Each member of the group expresses their opinion to support the decisions taken for a course of action. In simple terms, it is just a method to decide any event to occur within a group. Every one present in the group can suggest an idea, but the majority will be in favour of the one that helps them the most. Others have to deal with this decision whether they liked it or not. Byzantine Fault Tolerance (BFT), a problem of Byzantine General, is a system with a particular event of failure. Many times, there can be malfunctioning consensus systems. These components are responsible for the further conflicting information. Consensus systems can only work successfully if all the elements work in harmony. However, if even one of the components in this system malfunctions the whole system could break down. These Blockchain consensus models are just the way to reach an agreement. However, there can't be any decentralized system without common consensus algorithms. It won't even matter whether the nodes trust each other or not. They will have to go by certain principles and reach a collective agreement. In order to do that, it is required to check out all the Consensus algorithms. It can be stated that versatility of blockchain networks is due to consensus algorithms. However, blockchain consensus algorithm may have pros and cons which can always alter the perfection of the algorithm. The talk will explore Consensus Algorithm in detail and the perspectives of Blockchain technology in Healthcare Industry will be presented.

Keywords: Blockchain, Consensus Algorithm (CA), BFT, Open ledger, Peer-to-Peer network

Flyer for the Webinar

The flyer is a dark grey rectangular graphic with a pink triangle in the bottom right corner. In the top left, there is a circular logo with the number '20' and the text 'Heritage Institute of Technology'. In the top right, the date and time are listed: 'Saturday, September 25th, 2021 11 am'. Below this, a white box contains the text 'Join us at the webinar on'. The main title 'Perspectives of Block Chain and Its Application in Healthcare Industry' is written in a large, pink, outlined font. To the left of the title is a portrait of Prof. (Dr.) Debabrata Datta, a man with glasses wearing a light green shirt. To the right of the portrait, his name and title are listed in white text: 'Prof. (Dr.) Debabrata Datta', 'Professor, Department of Information Technology, Heritage Institute of Technology, Kolkata', and 'Former Nuclear Scientist & Head RP&AD, Bhabha Atomic Research Centre, Mumbai'. At the bottom, a white box contains the joining link: 'Joining Link: <https://meet.google.com/fsy-lqz-obl>'. Below the link, it says 'Organized by: Department of Information Technology and Department of Computer Applications'.

List of Participants

Dr. Souvik Basu, Computer Applications

Dr. Siuli Roy, Information Technology Dept.

Prof. Debabrata Dutta, Information Technology Dept.

Prof. Sandip Chatterjee, Mathematics Dept.

hemanta de11:22 AM

Hemanta De, IT Department

62 DIVANKIT SHA11:22 AM

Divankit Sha MCA

Tiasha Majhee11:22 AM

Tiasha Majhee - MCA 2nd year.

14 rohit barua11:22 AM

Rohit Barua , MCA

sandipan ganguly11:22 AM

Sandipan Ganguly, Computer Applications

rituparna sinha11:22 AM

Rituparna Sinha, Information Technology

satarupa biswas11:22 AM

Satarupa Bagchi Biswas, Information Technology

Megha Pal11:22 AM

Megha Pal, Department- MCA 2nd year

Masuma Jasmine11:22 AM

Masuma Jasmine, MCA Dept

Krishanu Sarkar11:22 AM

Krishanu Sarkar, MCA

27 Arunima Sikdar11:22 AM

Arunima Sikdar,MCA

48 Sridip das11:22 AM

Sridip Das, MCA

15 avipriya pal11:22 AM

Avipriya Pal, MCA

23 TinaMajumder11:22 AM

Tina Majumder, MCA

04 Saurabh Shukla11:22 AM

Saurabh Shukla , MCA

49 Nitish Kumar11:22 AM
Nitish Kumar, MCA

35 riya samanta11:22 AM
Riya Samanta - MCA

Saurav KumarJha11:22 AM
Saurav Kumar jha MCA

Shalini Singh11:22 AM
Shalini Singh, MCA

56_chandrima panja11:22 AM
Name:- Chandrima Panja, Department:-MCA

46_Shreya Chamaria11:22 AM
Shreya Chamaria,MCA

51_Priyanka Das11:22 AM
Priyanka Das , MCA

Amrita Ghosh11:22 AM
Amrita Ghosh, MCA

sandipan dutta11:22 AM
Sandipan Dutta, IT

shantanu ghosh11:23 AM
Shantanu Ghosh, Information Technology

Arghyadeep Banerjee11:23 AM
Arghyadeep Banerjee , MCA

Rounak Manna11:23 AM
Rounak Manna, MCA

55_monideepa dasgupta11:23 AM
Monideepa Dasgupta, MCA Department
Saikat Biswas11:23 AM
Saikat Biswas , MCA

44 ANIMESH KUNDU11:23 AM
Animesh Kundu MCA

joydeb hazra11:23 AM
Joydev hazra, IT

42 Nandini Prasad11:23 AM

Nandini Prasad, MCA

63 Subhadeep Sur11:23 AM
Subhadeep Sur MCA

Arunava Dey11:23 AM
Arunava Dey, MCA

Prem Chand Jaiswal11:23 AM
Prem Chand Jaiswal, MCA 2nd year

16 Madhushree Mondal11:23 AM
Madhushree Mondal , MCA

19 Ankita Ray11:23 AM
Ankita Ray , MCA

22 Sounak Saha11:23 AM
Sounak Saha,MCA

deepmalya mukhopadhyay11:23 AM
Deep Malya Mukhopadhyay, IT

sudeshna ghosh11:23 AM
Sudeshna Goswami CSE

Vidisha Agarwal11:23 AM
Vidisha Agarwal, MCA, 2ND YEAR

anirban kundu11:24 AM
Anirban Kundu, Computer Applications

54 Souptik Dutta11:24 AM
054 Souptik Dutta, MCA 1st Year

05 Soumita chakraborty11:24 AM
Soumita Chakraborty, MCA, 2nd sem

07 soumili sau11:24 AM
Soumili sau, MCA, 2nd sem

18 Arunava Ghosh11:24 AM
Arunava Ghosh, MCA, 2nd sem

24 Soumyajyoti Middy11:25 AM
Soumyajyoti Middy,MCA 2nd semester

59 shankha tirtha_ghosh11:25 AM
Shankha Tirtha Ghosh,mca 2nd sem

59 Sumit Vikram11:25 AM
Sumit vikram , IT

11 Ujjwal Gorai11:25 AM
Ujjwal Gorai Dept: MCA

01 sakshi gupta11:26 AM
Sakshi Gupta , MCA(2nd Sem)

037 Rajkamal Gupta11:26 AM
Rajkamal Gupta IT 2nd

17 Sourav mondal11:26 AM
Sourav Mondal, MCA

09 Indrani Ghosh11:26 AM
Indrani Ghosh
Department : MCA

28 promita ghosh11:26 AM
Promita Ghosh , MCA

47 SuryenduPan11:27 AM
Suryendu Pan, MCA

36 Rahul gour11:27 AM
Rahul Gour , MCA

37 Bhagyashree Maity11:28 AM
Bhagyashree Maity, MCA

Aritrika Banerjee11:29 AM
Aritrika Banerjee,MCA

10 debalina chakraborty11:29 AM
Debalina Chakraborty,MCA

Angadraj Singh11:33 AM
Angadraj Singh, MCA

Souvik Das11:34 AM
Souvik Das ,MCA

sudipta bhadra11:34 AM
Sudipta Bhadra,IT Dept

Saikat Biswas11:34 AM
Saikat Biswas, MCA

Varsha Keshri11:34 AM
Varsha Keshri, MCA

50 Tandrima Ganguly11:34 AM
Tandrima Ganguly, MCA

62 DIVANKIT SHA11:35 AM
Divankit Sha,MCA

14 rohit barua11:35 AM
Rohit Barua, MCA

06 sneha bhattacharya11:41 AM
Sneha Bhattacharya-Mca

Rajdeep Das11:44 AM
Rajdeep Das- MCA

23 TinaMajumder11:46 AM
Tina Majumder , MCA

22 Sounak Saha11:46 AM
Sounak Saha -MCA 2nd sem

Agnishwar Mukherjee11:47 AM
Agnishwar Mukherjee, MCA

25 Debarpan BANDYOPADHYAY11:47 AM
Debarpan Bandyopadhyay, MCA 2nd Semester

B Tejaswari11:57 AM
B Tejaswari. , MCA

Dipanjan Patra11:59 AM
Dipanjan Patra, MCA

Sachin Agarwal11:59 AM
Sachin Agarwal- MCA

Kishor Mohanty12:00 PM
Kishor mohanty -MCA

Pratik Roy12:00 PM
Pratik Roy_MCA

13 Tiyasha Paul12:18 PM
Tiyasha Paul-MCA

40 Ayan Hossain 12:19 PM
Ayan Hossain -MCA

Somesh Das 12:20 PM
Somesh Das-MCA

Abhishek Kumar Soren 12:23 PM
Abhishek Kumar Soren-MCA

Snapshot of the Webinar

11:19 AM | Perspectives of Block Chain and Its Applicatio...

Souvik Basu

Speaker: Prof. Sushmita Mitra

Topic: From Learning To Deep Learning

Attendees: 36

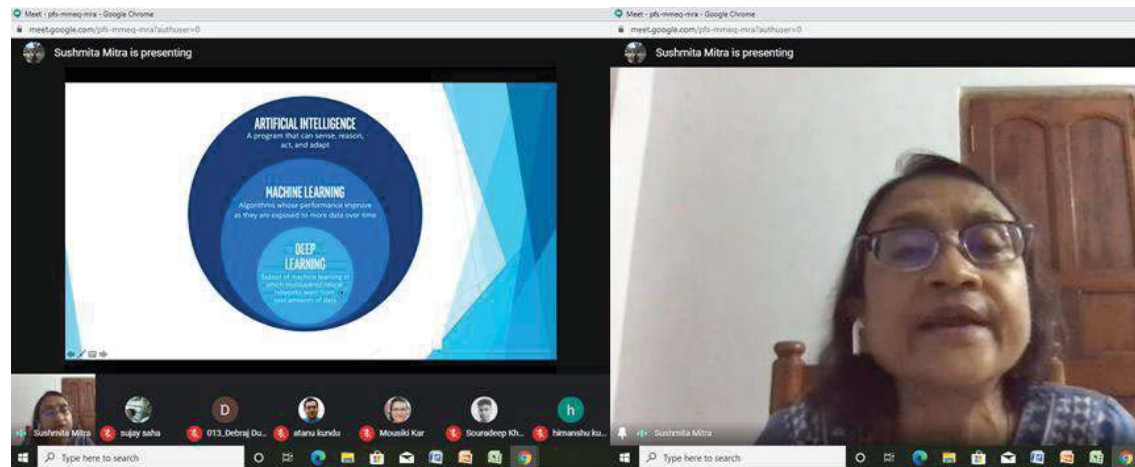
Venue: Online

Organizing Institute: IEEE ED HITK SBC, Heritage Institute of Technology

The Department of Electronics & Communication Engineering, Heritage Institute of Technology in collaboration with IEEE Electron Devices HIT Student Branch Chapter, IEEE EDS Center of Excellence and IEEE EDS Kolkata Chapter organized a Lecture Program (Webinar) on October 10, 2020.

It was an honour to have Prof. Sushmita Mitra, Fellow IEEE and INAE Chair Professor and Fulbright-Nehru Senior Researcher, Machine Intelligence Unit (MIU), Indian Statistical Institute, Kolkata. She delivered a lecture on the topic 'From Learning To Deep Learning'.

The lecture was held on the GOOGLE MEET platform at 6 p.m. on Saturday, October 10, 2020.



The IEEE EDS Center of Excellence at Heritage Institute of Technology, believes in 'Education for Empowerment'. The May to July quarter was dedicated to 'The joy of learning' by bringing together academicians, researcher scholars, industry personnel, undergraduate and post graduate students from more than 38 organizations across India. A series of stimulating Distinguished Lectures were organized by the Center of Excellence. Distinguished speakers from across the globe made this webinar series extremely successful.

We started the series with a Distinguished Lecture by Prof. Subramanian S. Iyer, Distinguished Professor and Charles P. Reames Endowed Chair in the Electrical Engineering Department at the University of California at Los Angeles. He delivered a talk on 'Flexible Hybrid Electronics 2.0' on April 17, Saturday, 7.30 pm (IST).

UCLA

Flexible Hybrid Electronics 2.0

Subramanian S. Iyer
s.s.iyer@ucla.edu

Center for Heterogeneous Integration and Performance Scaling
chips.ucla.edu

University of California, Los Angeles, CA 90095

UCLA Samueli School of Engineering | IEEE Distinguished lecture | Lecture April 17th 2021. | **CHIPS**

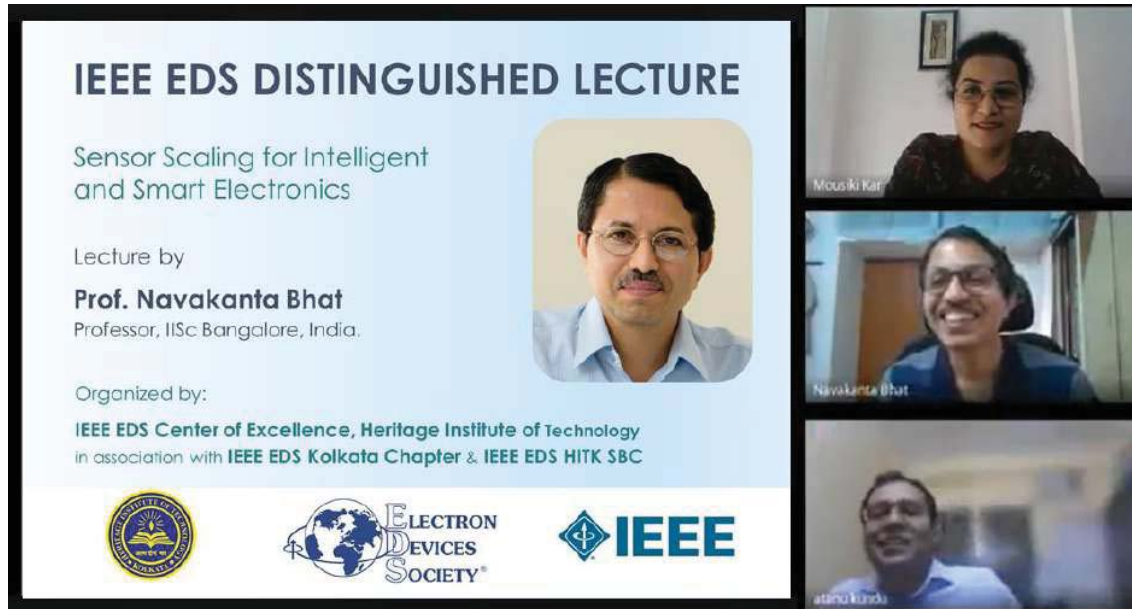
Participants: You, atanu kundu, Subramanian Iyer

DL Prof. Subramanian S. Iyer, being greeted by Dr. Atanu Kundu, Chapter Advisor ED HITK SBC and Dr. Mousiki Kar, Co-ordinator IEEE EDS CoE, HITK and Chair, EDS Kolkata Chapter

He spoke about the significant impact that Flexible Hybrid Electronics (FHE) is making in the area of medical and wellness electronics. 89 enthusiastic participants took part actively in the lecture session. The event was organized in association with, ED Heritage Institute of Technology Student Branch Chapter and IEEE Kolkata Section.



Our next speaker was Prof. Navakanta Bhat, Professor, Indian Institute of Science, Bangalore and Chairperson, Centre for Nano Science and Engineering, IISc on April 20, Tuesday at 3.00 pm (IST).






IEEE EDS DISTINGUISHED LECTURE

Sensor Scaling for Intelligent and Smart Electronics

Lecture by
Prof. Navakanta Bhat
Professor, IISc Bangalore, India.

Organized by:
IEEE EDS Center of Excellence, Heritage Institute of Technology
in association with **IEEE EDS Kolkata Chapter & IEEE EDS HITK SBC**

DL Prof. Navakanta Bhat, being greeted by Dr. Atanu Kundu, Chapter Advisor ED HITK SBC and Dr. Mousiki Kar, Co-ordinator IEEE EDS CoE, HITK and Chair, EDS Kolkata Chapter

He spoke on the topic 'Sensor Scaling for Intelligent and Smart Electronics'. Prof. Bhat discussed a holistic approach to manage the diversity and scaling issues of sensor blocks, akin to what was done in digital, analog and mixed signal electronics. The possibility of constructing an Electronic Nose on a Chip, with massively parallel sensor array architecture, compute and storage engines, possibly realized using heterogenous technologies was highlighted. The opportunities of integrating a variety of nanomaterials on Silicon platform, such as core-shell nanostructure, 2D materials and their hybrids were also discussed. The session was attended and enjoyed by 50 participants. The event was organized in association with, IEEE EDS Kolkata Chapter and ED Heritage Institute of Technology Student Branch Chapter.



HOD, ECE Department
Heritage Institute of Technology
Kolkata

The Department of Electronics & Communication Engineering, Heritage Institute of Technology in collaboration with IEEE Electron Devices HIT Student Branch Chapter, IEEE EDS Center of Excellence and IEEE EDS Kolkata Chapter organized a Distinguished Lecture Program (Webinar) on **August 09, 2020**.

It was our proud privilege to have **Prof. Samar Saha**, 2016-2017 President of IEEE Electron Devices Society (EDS) and currently, serving as the Sr. past President of the Society. as the speaker. Prof. Samar Saha, is an **IEEE EDS Distinguished Lecturer**, Chief Scientist at Prospicient Devices and an Adjunct Professor in the Electrical Engineering (EE) department, Santa Clara University, USA. He delivered a lecture on '**Physics of Microelectronic Device Models for VLSI Circuit Design**'.

The lecture was held on the GOOGLE MEET platform and was attended by **92 participants from 29 Institutions** from across the world.

The screenshot shows a Google Meet interface. At the top, it says "Mousiki Kar is presenting". The main content is a presentation slide with the title "Device Model Formulation: Basic Steps". The slide contains a bulleted list of points and a diagram. The diagram is a circular model with "Core Model" at the center, containing "I-V" and "C-V" characteristics. Surrounding this are various physical and parasitic effects: "Active and Passive Parasitic Elements", "Non-Quasi-static Effects", "Substrate RC-Network", "Structural Effects", "Temperature Effects", "Leakage Currents", "Layout Effects", "RF Effects", "Process Variability", "Reciprocity", "Series Resistance", "Physical Effects", "Geometry Effects", and "High-Field Effects".

- Core model for $I-V$ and $C-V$ characteristics:
 - Long channel device;
 - No geometry effects;
 - No physical effects.
- Include models for real device effects:
 - Geometry dependence – short and narrow channel;
 - Physical phenomena.
- Add models for real external effects on transistor.

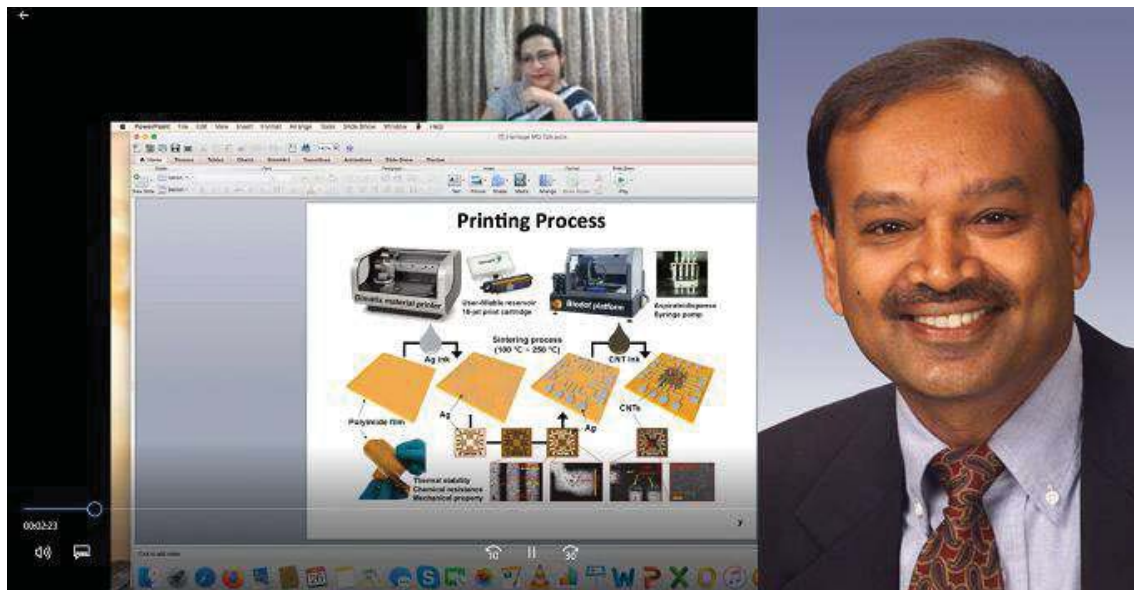
At the bottom of the slide, it says "IEEE EDS DL - ED HITK STUDENT BRANCH - Aug 9, 2020". The right side of the screen shows a grid of participants, including Samar Saha, Mousiki Kar, atanu kundu, Siddhepto Sen, Feel Harmonique, Subhrajyoti Saethukh..., Anandan Biswas, and 072_jshila Mullick. Meeting controls like "closed_caption_off" and "Mousiki Kar is presenting" are visible at the bottom.



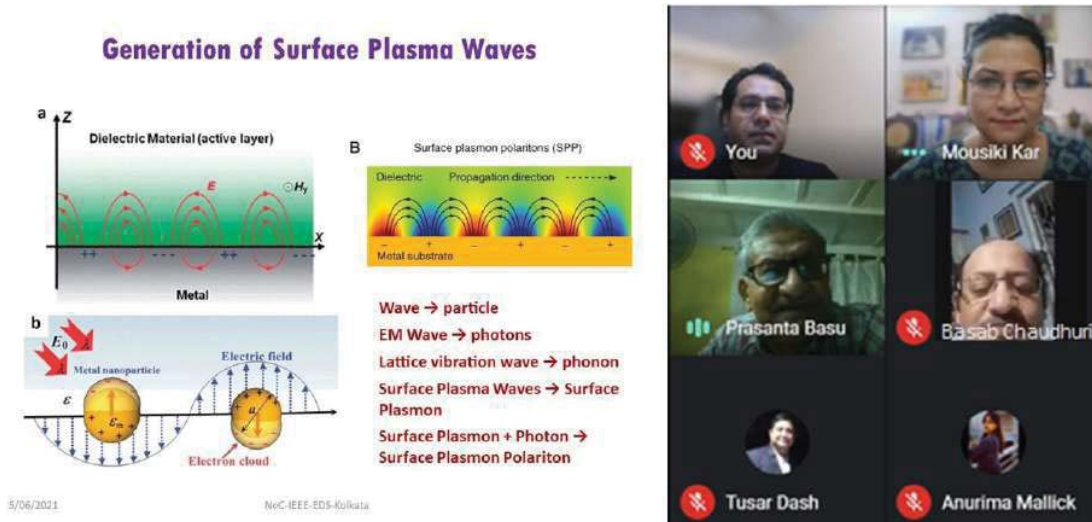
The Department of Electronics & Communication Engineering, Heritage Institute of Technology in collaboration with IEEE Electron Devices HIT Student Branch Chapter, IEEE EDS Center of Excellence and IEEE EDS Kolkata Chapter organized a Distinguished Lecture Program (Webinar) on **July 26, 2020**.

We had **Dr. Meyya Meyyappan, Chief Scientist, NASA Ames Research Center**, as our speaker. Dr. Meyyappan is an **IEEE EDS Distinguished Lecturer** and **President of IEEE EDS**. He delivered a lecture on **'Printed and Flexible Electronics'**.

The lecture was held on the WEBEX platform and was attended by **88 participants from 24 Institutions** from across the globe.



Following this a lecture was delivered by Prof. Prasanta Kumar Basu, Ex-Professor, Institute of Radio Physics and Electronics, University of Calcutta on June 05, 2021 at 7 p.m. IST. The topic of the webinar was ‘Network-on-Chip: A Journey from Electronic to Electronic-Photonic to Future Plasmonic Systems’.

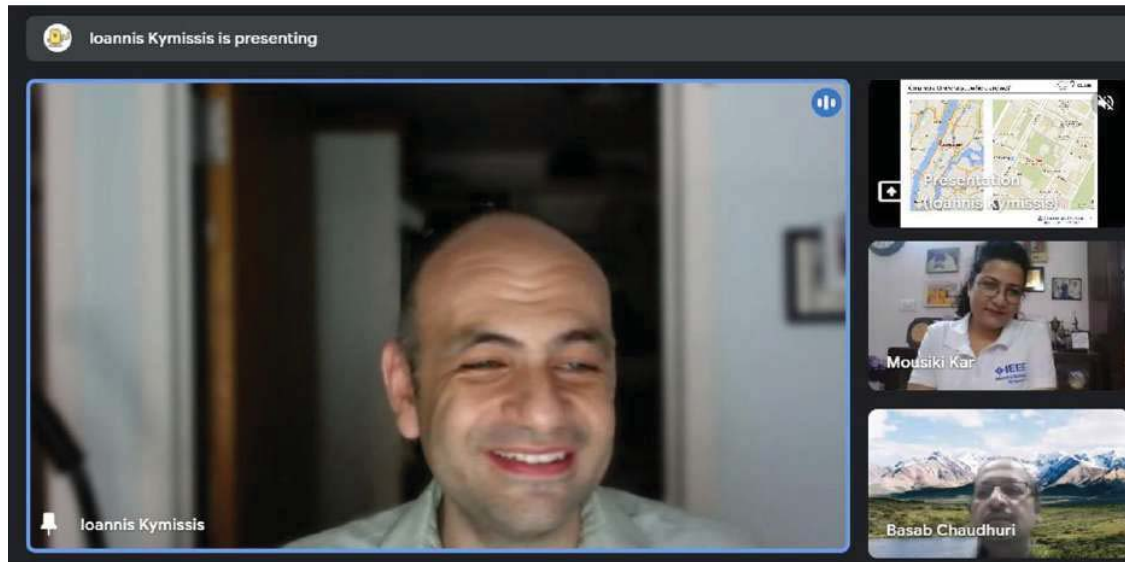


Prof. Prasanta Kumar Basu delivering his lecture

Prof. Prasanta Kumar Basu, discussed how plasmonics, in particular surface plasmonics, allow realization of sub wavelength sized devices and therefore seems to be the ultimate solutions for network-on-chip (NOC). The very small propagation length of plasmonic waves can be overcome by Surface Plasmon Amplification by Stimulated Emission of Radiation (SPASER) replacing nanolasers used in communication and networking. The talk was attended by 97 participants.



The Month of June was graced by a Distinguished lecture by Prof. Ioannis (John) Kymissis , Professor of Electrical Engineering in the Department of Electrical Engineering at Columbia University, New York, USA. He spoke on the topic‘Electronics on Anything: How Thin Film Electronics can Instrument the World’ on June 19, 2021 at 7 p.m. IST.



DL Prof. Ioannis (John) Kymissis delivering his lecture

In his lecture Prof. Kymissis discussed how his group has been working on the hybrid integration of organic semiconductors, thin film piezoelectrics, and laser-recrystallized materials with active substrates to implement a range of new functionalities. Devices they have developed include large area and miniature microphones, pressure sensors, active matrix flexible electrostrictive actuators, miniature spectrometers, and active matrix micro-LED displays. These approaches unlock new applications in healthcare, sensing, displays, soft and highly instrumented robotics, transportation, and communications.

The lecture was enjoyed by 50 attendees. The event was organized in association with IEEE EDS Kolkata Chapter.



The month of May started off with a lecture delivered by Prof. Kaushik Roy from Purdue University on May 01, Saturday, 7.30 pm (IST). He spoke on the topic, 'Re-Thinking Computing with Neuro-Inspired Learning: Devices, Circuits, and Systems'.

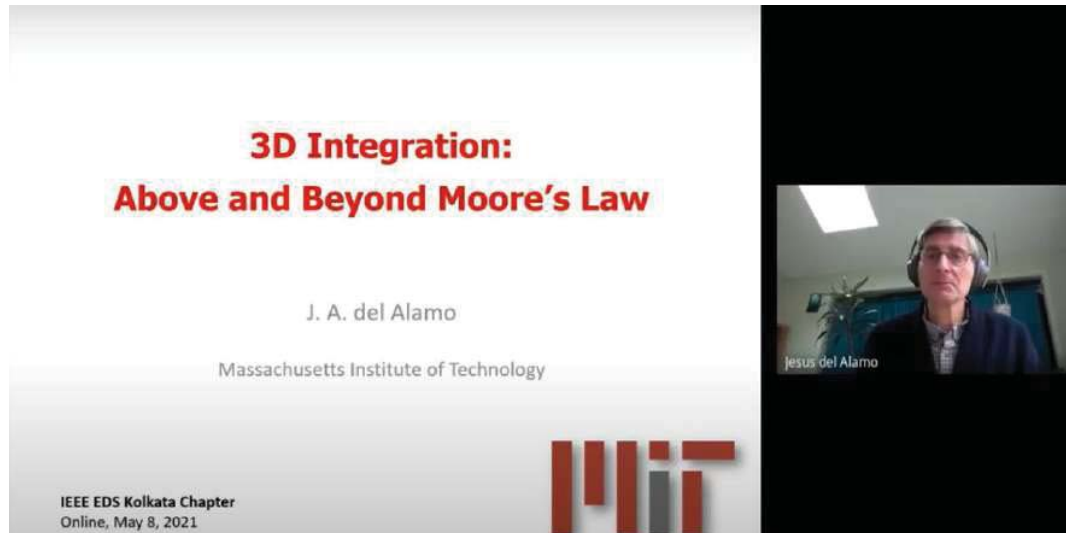


DL Prof. Kaushik Roy, being greeted by Dr. Susmita Mitra, Chair, Kolkata Section, Dr. Atanu Kundu, Chapter Advisor ED HITK SBC and Dr. Mousiki Kar, Co-ordinator IEEE EDS CoE, HITK and Chair, EDS Kolkata Chapter

He described his recent work on neuromorphic computing with spike based learning and the design of underlying hardware that can lead to quantum improvements in energy efficiency with good accuracy. The lecture was attended by 95 participants. The event was organized in association with, ED Heritage Institute of Technology Student Branch Chapter and IEEE Kolkata Section.



The second lecture in the month of May was delivered by Prof. Jesús A. del Alamo, Professor at Massachusetts Institute of Technology (MIT) and Director of the Microsystems Technology Laboratories. Prof. Alamo, spoke on the topic '3D Integration: Above and Beyond Moore's Law' on May 08, 2021, Saturday, at 7 p.m. IST.



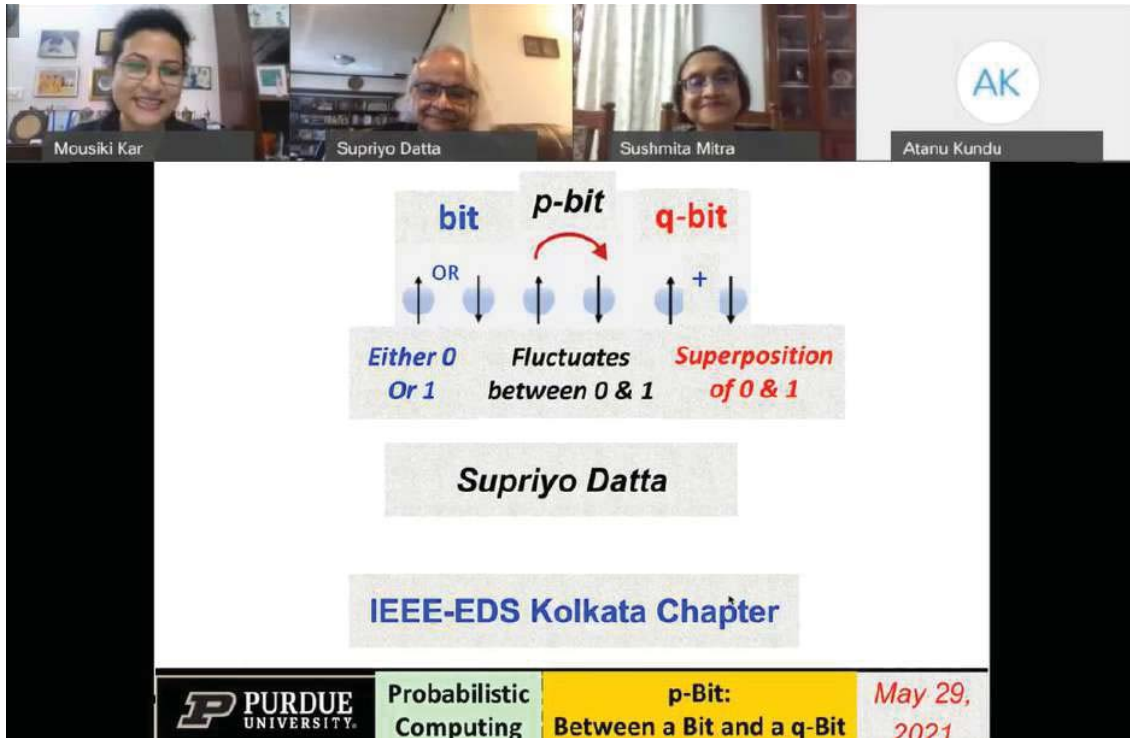
DL Prof. Jesús A. del Alamo delivering his lecture

Three-dimensional (3D) integration which is an emerging technology that can form highly integrated systems by vertically stacking and connecting various materials, technologies and functional components together was discussed. The potential benefits of 3D integration can vary depending on approach; they include multifunctionality, increased performance, reduced power, small form factor, reduced packaging, increased yield and reliability, flexible heterogeneous integration and reduced overall costs.

80 attendees from across the country enjoyed his lucid and informative presentation. The event was organized in association with, IEEE EDS Kolkata Chapter.



We wound up the month of May with a Distinguished lecture delivered by Prof. Supriyo Datta from Purdue University on the topic ‘Computing with p-Bits: Between a Bit and a q-Bit’ on May 29, Saturday, 7.30 pm (IST).



DL Prof. Supriyo Datta, being greeted by Dr. Susmita Mitra, Chair, Kolkata Section and Dr. Mousiki Kar, Co-ordinator IEEE EDS CoE, HITK and Chair, EDS Kolkata Chapter

He discussed that the awesome power of quantum computing comes from exploiting negative probabilities, which in turn requires stringent experimental conditions to protect the phase. Prof. Supriyo Datta explained that a probabilistic computer by contrast can be built with existing technology to operate at room temperature and has been demonstrated experimentally.

179 participants attended the talk which was organized in association with IEEE Kolkata Section, IEEE EDS Kolkata Chapter and ED Heritage Institute of Technology Student Branch Chapter.



One Day WORKSHOP on ' Embedded Systems: Innovation, Leadership and Entrepreneurship'

Attendee: 90+10(IEEE)

The Department of Electronics & Communication Engineering, Heritage Institute of Technology, Kolkata in collaboration with IEEE Electron Devices Society, Kolkata, IEEE EDS HIT Student Branch Chapter and Centre for Development of Advanced Computing, Kolkata (C-DAC), is organizing a One-day Workshop on 'Embedded Systems: Innovation, Leadership and Entrepreneurship' followed by a Panel discussion on 'Digital India, Make in India & Startup India - How to optimize a pragmatic growth path' on April 06, 2017 at Heritage Institute of Technology.



Keynote Speech by Dr. Nabarun Bhattacharyya, Director, C-DAC
Mr. Alokesh Ghosh, C-DAC
Dr. Subhrangshu Sanyal, CEO, IIM Kolkata

Panel Discussion:

Dr. Nabarun Bhattacharyya, Director, C-DAC
Prof. Rajib Bandyopadhyay, Jadavpur University
Mr. Alokesh Ghosh, C-DAC
Dr. Subhrangshu Sanyal, CEO, IIM Kolkata
Dr. Prabir Banerjee, HOD, ECE
Dr. Anindya Sen



The Department of Electronics & Communication Engineering, Heritage Institute of Technology, Kolkata is organised a Lecture Program for 3rd year E.C.E. students on April 12, 2017.

Topic : **Exposure to VoLTE: Voice over LTE**

Speaker: **Mr. Prasanta Kumar Mukhopadhyay**
Integrated Access Network Lead, Reliance Jio Infocomm Ltd.

Time: 15.00 – 17.00 Hrs.

Venue: A Building Seminar Hall
Heritage Institute of Technology



In order to spark an interest among the undergraduate students for research in the domain of electron devices, the Department of Electronics and Communication Engineering in collaboration with IEEE Electron Devices HIT Student Branch Chapter organized a lecture session by IEEE EDS Distinguished Lecturer, Prof. Yogesh Singh Chauhan from Indian Institute of Technology, Kanpur. The lecture was held on 12th April 2018. Prof. Chauhan delivered a talk on 'Negative Capacitance Transistors – Physics, Modeling and Processor Performance'. The talk was attended by 191 undergraduate student participants.



(From left) Felicitation of the Speaker IEEE EDS DL Prof. Yogesh Singh Chauhan By Branch Advisor Prof. AtanuKundu ; Snapshot of the DL session on 12th April 2018



A Distinguished Lecture Program on September 03, 2019 at Heritage Institute of Technology by Dr. M. K. Radhakrishnan, Founder Director & Chief Technical Consultant, NanoRel Technical Consultants, Singapore and Vice President, IEEE Electron Device Society (Regions and Chapters). The lecture was attended by 112 students.



Photographs of the Lecture Session by Dr. M. K. Radhakrishnan, on 03.09.2019



The **IEEE Electron Devices HIT Student Branch Chapter** and **IEEE EDS Center of Excellence** is organized a Lecture Session by Prof. Vincenzo Piuri on **24.09.2018**. Prof. Vincenzo Piuri is a professor of Computer Engineering at the Università degli Studi di Milano. He is **Fellow of the IEEE** and **Distinguished Scientist of ACM**. He spoke on the topic '**Ambient intelligence: convergence of artificial intelligence, machine learning, biometrics, cloud-computing, and internet-of-things**'. The talk was attended by 374 participants.



Snapshots of the Lecture Session by Prof. Vincenzo Piuri



A Lecture Program was organized on September 24, 2019 with Dr. Avik Bhattacharya from IIT Roorkee as the speaker. He spoke about 'Solid State Transformer'. He delivered an in depth account of the emerging technology of SST that has the advantages of low volume, low weight and fault isolation. The lecture session was attended by 28 students.



Photographs of the Lecture Session by Dr. Avik Bhattacharya, on 24.09.2019



Design Work done by Arnab Chatterjee, 2016 batch Graduate of Mechanical Engg, HITK

Brief Description:

Arnab graduated in Mechanical Engineering from HITK in the year 2016. After graduation he became a freelance Mechanical Engineering designer. Some of the companies he worked with, which are spread all over the world, include Corruven, MEEE Services, Asimov Universe to name a few. His passion also guided him to participate in a global design competition held by United States Marine Corps (USMC) for Modular Logistic Vehicle and Adaptive Disaster Aid Robot.

In May of 2018 his design HAT 2.0 was selected by USMC as the best design for their Modular Logistic Vehicle challenge among many designs from all over the world.

In July of 2018 his design of ADAR (Adaptive Disaster Aid Robot) was selected by USMC as the best design among many designs from all over the world.

Both the designs were then sold to USMC and Local Motors for further development. In October 2018, the proof of concept of HAT 2.0 was revealed at Marines Corps Base Camp at Pendleton, California. Armed with these feathers in his cap, Arnab has now started his own design and prototyping studio Arnstek Studios.

Arnab delivered an invited lecture on Award winning Design of 'Hybrid Adaptive Transport 2.0 (HAT 2.0)', 'Adaptive Disaster Aid Robot (ADAR)' and 'Connecting Rod Support' in HIT ME department on 25.10.2019.



Arnab
15/10/2019

Dr. Sukanta Sarkar
Head, ME dept, HITK

Dr. Sukanta Sarkar
Associate Professor & Head
Department of Mechanical Engineering
Heritage Institute of Technology
Kolkata - 700 107

The Department of Electronics & Communication Engineering, Heritage Institute of Technology in collaboration with IEEE Electron Devices HIT Student Branch Chapter, IEEE EDS Center of Excellence and IEEE EDS Kolkata Chapter organized a Distinguished Lecture Program (Webinar) on **August 09, 2020**.

It was our proud privilege to have **Prof. Samar Saha**, 2016-2017 President of IEEE Electron Devices Society (EDS) and currently, serving as the Sr. past President of the Society. as the speaker. Prof. Samar Saha, is an **IEEE EDS Distinguished Lecturer**, Chief Scientist at Prospicient Devices and an Adjunct Professor in the Electrical Engineering (EE) department, Santa Clara University, USA. He delivered a lecture on ' **Physics of Microelectronic Device Models for VLSI Circuit Design** '.

The lecture was held on the GOOGLE MEET platform and was attended by **92 participants from 29 Institutions** from across the world.

The screenshot shows a Google Meet interface. At the top, it says "Mousiki Kar is presenting". The main content is a presentation slide with the following text:

Device Model Formulation: Basic Steps

- Core model for $I-V$ and $C-V$ characteristics:
 - Long channel device;
 - No geometry effects;
 - No physical effects.
- Include models for real device effects:
 - Geometry dependence – short and narrow channel;
 - Physical phenomena.
- Add models for real external effects on transistor.

To the right of the text is a circular diagram illustrating the layers of a device model. The innermost circle is labeled "Core Model" and contains "I-V" and "C-V". Surrounding this are concentric layers representing various physical and parasitic effects: "Physical Effects", "Geometry Effects", "Parasitic Elements", "High-Field Effects", "Non-Quasi-static Effects", "Substrate RC-Network", "Structural Effects", "Temperature Effects", "Leakage Currents", "RF Effects", "Layout Effects", "Process Variability", "Series Resistance", and "Layer Thickness".

On the right side of the screen, there is a grid of video thumbnails for participants, including Samar Saha, Mousiki Kar, atanu kundu, Siddhepto Sen, Feel Harmonique, Subhrajyoti Saethukh..., Anandhan Biswas, and 072_jshila Mullick. At the bottom, there are meeting controls like "Meeting details keyboard_arrow_up", "closed_caption_off", and "Mousiki Kar is presenting".





Dr. Bijay Kumar Behera, Principal Scientist, (ICAR)

Topic: Applications of Electronics in Agriculture and Environmental Studies

Venue: *Heritage Institute of Technology, Kolkata*



Brief Report on VLSI FDP “Electronic System Design in VLSI Chip”

Prof. Krishanu Datta

Associate Professor, ECE Department

FDP Workshop on “**Electronic System Design in VLSI Chip**” took place on **6th and 7th March, 2019** in Department of ECE, Heritage Institute of Technology. This Workshop was organized by Department of Electronics and Communication Engineering. Total Participants were around 50 which included all faculty members and technical assistants from ECE Department.

On 6th March, key speaker was Mr. Mrinal Das, founder of eCOE (Electronic Center of Excellence, an organization under Skill India) and co-founder and former VP of Sankalp Semiconductor. He talked on ESDM (Electronic System Design and Manufacturing) opportunity in India.

On 7th March, key speaker was Prof. Krishanu Datta, Associate Professor in ECE Department and former Engineer of Intel Corporation, Hillsboro, OR, USA. Prof. Datta delivered lecture on VLSI Design in advanced process node. He covered CMOS design and scaling trend including SOI and FINFET based process nodes in his lecture.

The entire workshop was coordinated by Prof. Krishanu Datta, Associate Professor and VLSI Lead in ECE Department.





VLSI FDP on Electronic System Design in VLSI Chip 2019


HOD, ECE Department
Heritage Institute of Technology
Kolkata



VLSI FDP on Electronic System Design in VLSI Chip 2019



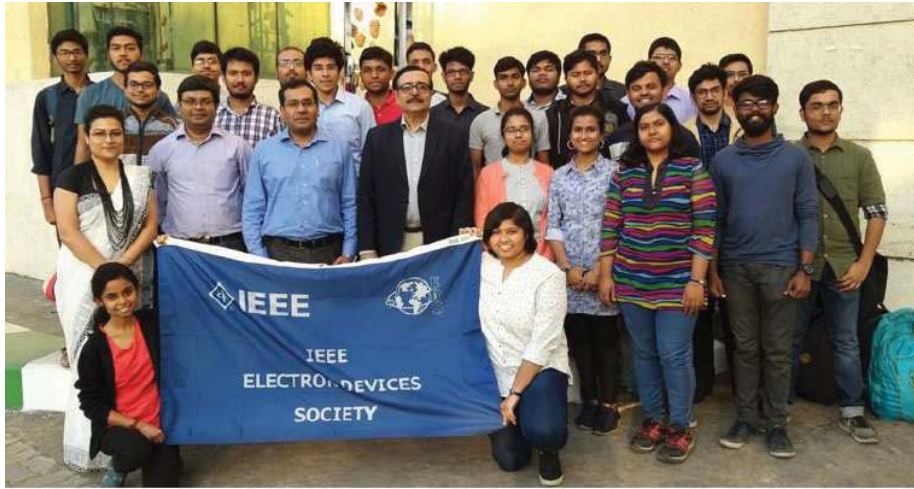
An invited talk was delivered by Dr. Nabarun Bhattacharyya, Senior Director & Centre Head, Centre for Development of Advanced Computing (C-DAC), Kolkata, on 08.02.2019. The talk was organized by the Department of ECE, the IEEE ED HIT Student Branch Chapter and the IEEE EDS Center of Excellence. Our speaker delighted the listeners with the current scenario of 'Sensors for Agriculture and Environment' and the possible R&D in this field.



Group photo with participants after Lecture Session by Dr. Nabarun Bhattacharyya, Senior Director & Centre Head, Centre for Development of Advanced Computing (C-DAC), Kolkata on 08.02.2019



An invited talk was delivered by Prof. Sujit Biswas is from the Department of Electrical Engineering, Jadavpur University, Kolkata, on 08.02.2019. He is the past Chairman of the IEEE Kolkata Section. The talk was organized by the Department of ECE, the IEEE ED HIT Student Branch Chapter and the IEEE EDS Center of Excellence. A very insightful delivery on the topic 'Practical Problems in High Frequency Applications of Passive Components in Electronics' was very well received by the participants.



Group photo with participants after Lecture Session by Prof. Sujit Biswas on 12.02.2019



We had the proud privilege to have Arijit Majumder, Scientist, Society for Applied Microwave Electronics Engineering and Research (SAMEER), Ministry of Electronics and Information Technology, Government of India, as our invited speaker on 20.02.2019. The talk was organized by the Department of ECE, the IEEE ED HIT Student Branch Chapter and the IEEE EDS Center of Excellence. The lecture on ' GaN HEMT - The Holy Grail for Power Amplifier Designers ' was riveting and enriched each and every participant's knowledge base.



Group photo with participants after Lecture Session by Arijit Majumder, Scientist, Society for Applied Microwave Electronics Engineering and Research (SAMEER) on 20.02.2019



The **IEEE Electron Devices Heritage Institute of Technology Student Branch Chapter** organized a 3-day hands-on Autonomous Robotics Workshop '**Lord of the Tracks 1.0**' during 20-22 February 2018. Ten teams comprising of 40 students from second year B.Tech. ECE participated in the workshop. The teams were mentored and guided by 10 student member volunteers, Student Branch Counselor Dr. Mousiki Kar and ED HIT SBC Advisor Dr. Atanu Kundu. The event was hosted at the **IEEE EDS Center of Excellence, Heritage Institute of Technology, Kolkata, India.**



Participants and mentors of '**Lord of the Tracks 1.0**' held during 20-22 February 2018



BRIEF REPORT
ON
"STUDENTS PROGRAMME ON FOUNDRY TECHNOLOGY"

(Held on 27th March 2019, at HITK)

The Department of Mechanical Engineering, Heritage Institute of Technology, Kolkata jointly organized a "Students' Programme on Foundry Technology" at HIT campus on 27th March 2019 in collaboration with " Indian Institute of Foundrymen", Kolkata Chapter.

The event was organized keeping in view of sharpening the knowledge by the Students on Foundry Technology, its technological advances in the modern era and also to create an in-built awareness among those towards a professional attitude in the segment of Indian Foundry & Foundry support Industries, as a career in the future days to come.

The participants were mostly from 3rd Year B.Tech (Mechanical Engineering) students and they were divided into two groups viz., (i) the participants of 12 students comprising 6 groups , 2 students in each group for the **Presentation** on various topics on "Modern Foundry Technology" & (ii) the other group having 18 students comprising 6 groups, 3 students in each group for the **Quiz Contest** , covering the area entirely on " Manufacturing Processes " constituting the topics on Casting , Forming & Welding.

On behalf of IIF, Kolkata Chapter eight dignitaries took part as delegates for the event and the Faculty Members of HITK , namely Prof.(Dr.) Sukanta Sarkar, Prof.(Dr.) Amal Kumar Ray & Prof. (Dr.) Arup Jyoti Bhowal took an active part as vital roles and initiated as an instrumental for organizing such an excellent event .

Besides the presence of other Faculty and Staff members of the Mech.Engg. Department, the programme ended well with a note on grand success having the full-house participation by the rest of the 3rd Year and a part of the 4th Year B.Tech (ME) students as audience.

The Students showed keen interest as they were truly motivated, highly enthusiastic and in the process like a race on a competitive drive towards winning the prizes for the group as "Best Speaker " & to become the " Topper " in the group for the Quiz Contest for the each group member.

Amal
12/07/2021

The Gift awarding session was conducted by the Chairman of IIF, Kolkata chapter in line with the above for the Best Speaker & the Topper in the Quiz.

The organizing committee of IIF also considered as a token consolation gift to each member of the students participated.

The Certificates for the participants however could not be handed over to the students on the day of the event due to some printing error on the Certificates. The error has been rectified now and the Certificates are being awarded to each member of the participative students by the 1st week of April 2019 by the Departmental Head of Mech.Engg. Department.



DL by Dr. MeyyaMeyyappan

The Department of Electronics & Communication Engineering, Heritage Institute of Technology hosted a Distinguished Lecture Program by Dr. MeyyaMeyyappan, Chief Scientist from NASA, Ames Research Center, CA. The event was organized in collaboration with IEEE Kolkata Section, IEEE EDS, Kolkata Chapter, IEEE EDS HITK SBC and IEEE SSCS Kolkata Chapter. He delivered a lecture on 'Nanomaterials in Nano electronics and Optoelectronics' on 6th January 2017. The talk was attended and nicely received by over 98 attendees (IEEE Member: 34) which included third and final year ECE students and faculty members from various universities.



IEEE EDS MINI COLLOQUIA (MQ) on Future of Semiconductor Electronic Devices

The IEEE Electron Devices HIT Student Branch Chapter in collaboration with IEEE Electron Devices Calcutta Chapter and Department of Electronics and Communication Engineering organized IEEE EDS MQ on “Future of Semiconductor Electronic Devices” at Heritage Institute of Technology on 21.07.2017.



The lectures were delivered by the 4 eminent EDS Distinguished Lecturers. The first lecture was delivered by Prof. Samar Saha, President, IEEE EDS and Adjunct Faculty, Santa Clara University on “Evolution of Semiconductor Devices in Enabling Smart Environments and Integrated Ecosystems”. Followed by that lecture was by Prof. M. Jagadesh Kumar, Vice-Chancellor, Jawaharlal Nehru University and Professor, Dept. of EE, IIT Delhi on “Low Power Nanoscale MOSFETs: Innovations and Challenges”.



The next lecture was by Prof. Manoj Saxena, Associate Professor, University of Delhi, IEEE EDS-Region 10 SRC Vice Chair on “Modeling and simulation of Gate Electrode Engineered Double Gate Junctionless Transistor”. The last lecture was delivered by Prof. Souvik Mahapatra, Professor, Dept. of EE, IIT Bombay and Fellow, IEEE on “CMOS Transistors - Operation, Scaling, Reliability and Way Forward”.

92 UG students, Faculty members and research scholars were participated from the department of Electronics & Communication Engineering of Heritage Institute of Technology. The Colloquia was extremely successful and beneficial for students and faculty members of ECE departments.



HOD, ECE Department
Heritage Institute of Technology
Kolkata

Lecture Session by Prof. Siben Dasgupta

The Department of Electronics & Communication Engineering, Heritage Institute of Technology hosted a Lecture Program by Prof. Siben Dasgupta, Professor, Wentworth College, USA. The event was organized in collaboration with IEEE EDS, Kolkata Chapter and IEEE EDS HITK SBC. He delivered a lecture on 'Digital Controls' on 9th March 2017. The talk was attended and nicely received by over 46 attendees (IEEE Member: 8) which included third and final year ECE students and faculty members from various universities.



Prof. Siben Dasgupta delivering his lecture



Motivated by the overwhelming response and requests from students the **IEEE Electron Devices Heritage Institute of Technology Student Branch Chapter** organized a 3-day hands-on Autonomous Robotics Workshop '**Lord of the Tracks 2.0**' during 13-15 March 2018. The workshop was proactively executed by 10 student member volunteers, Student Branch Counselor Dr. Mousiki Kar and ED HIT SBC Advisor Dr. Atanu Kundu. A total of 45 students from 2nd year B.Tech. ECE participated in the workshop hosted at the **IEEE EDS Center of Excellence, Heritage Institute of Technology, Kolkata, India.**



Participants and mentors of '**Lord of the Tracks 2.0**' held during 13-15 March 2018



IEEE Workshop on Simulation of Analog/RF Circuits

Attendee: 20(12-IEEE)

'SIMULATION OF ANALOG/RF CIRCUITS' , A hands-on Workshop jointly organized by IEEE EDS HIT Student Branch Chapter, Department of Electronics & Communication Engineering, Heritage Institute of Technology, Kolkata and TEQIPII, on 18th and 19th March, 2017.



Lecture Session by Prof. Prof. Sanatan Chattopadhyay

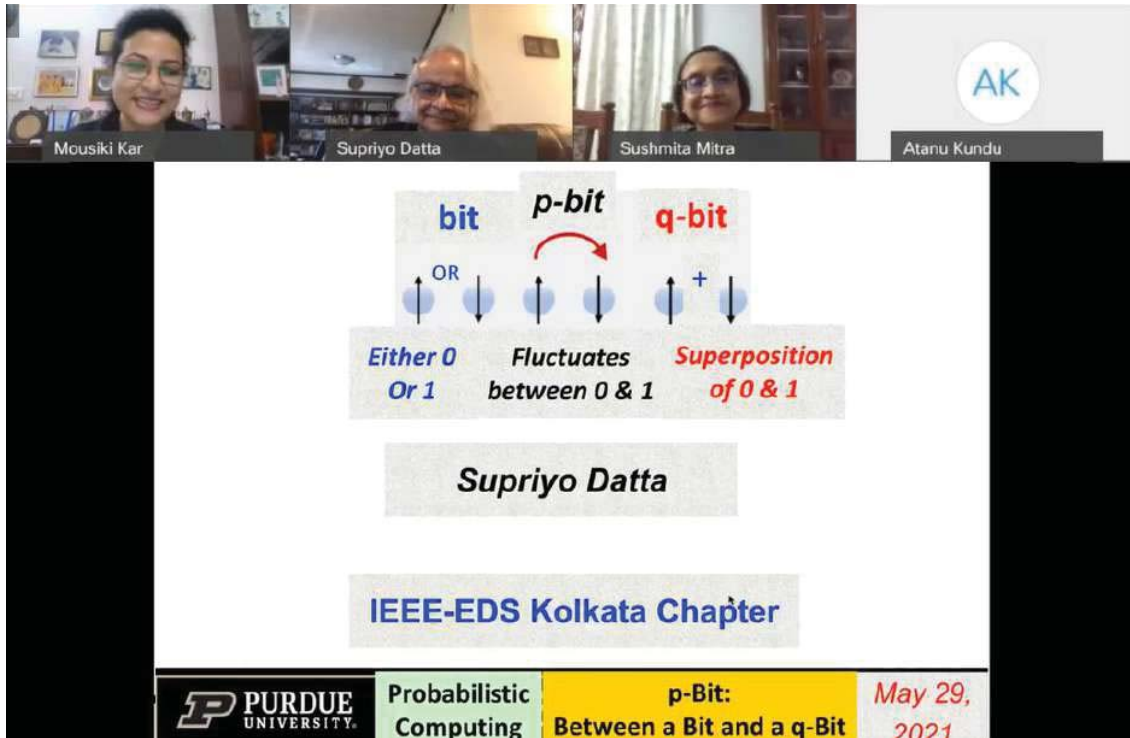
Attendee: 96+10(IEEE)

The Department of Electronics & Communication Engineering, Heritage Institute of Technology hosted a Lecture Program by *Prof. Sanatan Chattopadhyay*, Professor, Calcutta University. The event was organized in collaboration with IEEE EDS, Kolkata Chapter, Finishing School, TEQIP II and IEEE EDS HITK SBC. He delivered a lecture on 'Challenges and Advantages of MOSFETs: A Journey of 60 years' on 28th March 2017. The talk was attended and nicely received by over 82 attendees which included second, third and final year ECE students and faculty members from various universities.




HOD, ECE Department
Heritage Institute of Technology
Kolkata

We wound up the month of May with a Distinguished lecture delivered by Prof. Supriyo Datta from Purdue University on the topic ‘Computing with p-Bits: Between a Bit and a q-Bit’ on May 29, Saturday, 7.30 pm (IST).



DL Prof. Supriyo Datta, being greeted by Dr. Susmita Mitra, Chair, Kolkata Section and Dr. Mousiki Kar, Co-ordinator IEEE EDS CoE, HITK and Chair, EDS Kolkata Chapter

He discussed that the awesome power of quantum computing comes from exploiting negative probabilities, which in turn requires stringent experimental conditions to protect the phase. Prof. Supriyo Datta explained that a probabilistic computer by contrast can be built with existing technology to operate at room temperature and has been demonstrated experimentally.

179 participants attended the talk which was organized in association with IEEE Kolkata Section, IEEE EDS Kolkata Chapter and ED Heritage Institute of Technology Student Branch Chapter.



DL Program on 'Prospects of GaN-based Semiconductor Devices'

Date: November 01, 2017

Now-a-days, all the electronics equipment are tiny and design/fabricated by hand is not possible. Therefore, electronics circuit are design using VLSI tools and fabricated by automation system using sophisticated equipment. These circuits called as Integrated Circuits fabrication at India is not possible commercially till now. However, India is very good in design and hence many institution, prefer to design the circuit using different VLSI tools and fabricated outside. The aim of this lecture is to inspire the students to be part of such VLSI design and practice such that the students will be able to get the job in their domain and enjoy the electronic circuits design.

Participants: 148 undergraduate student (EDS Member: 24)

Venue: Heritage Institute of Technology



A Lecture Program was organized on November 05, 2019 at Heritage Institute of Technology. In the first session we had the proud privilege to have with us IEEE EDS Distinguished Lecturer Prof. Subir Kumar Sarkar, Professor, Department of ETCE, Jadavpur University who delivered a lecture on 'Transient Electronics: a Brief Study of the Materials and Devices'. His lecture was relevant in terms of current evolving technology as well as global environmental wellbeing .



Prof. Subir Kumar Sarkar, Professor, Department of ETCE, Jadavpur University delivering his Lecture

In the second session, Dr. Binit Syamal, Research Scientist at Nanyang Technological University, Singapore delivered a talk on ' How semiconductor Foundry works'. His meticulously prepared representation of a complicated process was very informative and gave the students an insight into how the real world devices come to life. The sessions were attended by 20 participants.



Group photo with participants after Lecture Session on 05.11.2019



A talk titled 'Microelectronics Technology' was delivered by **Prof. S.N. Biswas**, Former Professor IEST and HITK on 21.11.2018. The talk was attended by 285 participants.



Talk delivered by **Prof. S.N. Biswas**



**NATIONAL LEVEL WORKSHOP
ON
EVOLUTIONARY OPTIMISATION TECHNIQUES
UNDER TEQIP-II
DEPARTMENT OF ELECTRICAL ENGINEERING
HERITAGE INSTITUTE OF TECHNOLOGY
KOLKATA- 700107**

Report of National Level Workshop

A four days National Level Workshop was successfully conducted in Heritage Institute of Technology, on 7th – 12th July 2016 by Department of Electrical Engineering. The programme received an overwhelming response with 25 participants from Heritage Institute of Technology and other institutes.

Date wise brief Report for each of the four days programme is given below:

Date: 7th July 2016 (First Day)

Inaugural Session

The programme was inaugurated in the morning at the venue on 7th July 2016 by Dr. Pranay Chaudhuri (Principal, HIT-K), Dr. Satadal Mal (Head, EE Department), Dr. Dulal Chandra Ray (TEQIP Co-ordinator)

In welcome speech, Dr. Satadal Mal (Head, EE Department) shared his views with the faculty participants about the importance of the workshop. The optimisation techniques at present are extensively used in higher education, especially in research work. Sir highlighted the importance and objectives of organizing such workshop program as this will be helpful for the faculty members of any engineering discipline. A brief bio-data of our resource persons for the day was then shared with the participants.

In the first session Dr. Amitava Chatterjee, Professor, Electrical Engineering Department, Jadavpur University, Kolkata started his discussion on the topic “Bacterial Foraging Optimisation and its Application in Signal and Image Processing Problems”. He shared his knowledge with participants by using power point presentation and various examples. It helped to make subject fully understand and created interest among the participants.

In the second session Dr. Kaushik Das Sharma, Assistant Professor, Department of Applied Physics, University of Calcutta started his discussion on the topic “Evolutionary Optimization Based Signal and Image Processing using MATLAB”. He discussed about Genetic algorithm and Particle Swarm Optimisation methods. He used power point presentation and discussed use of various commands in MATLAB.

The sessions were attended by approximately 25 participants.

Date: 8th July 2016 (Second Day)

On the second day Dr. Swapan Kumar Goswami, Professor, Electrical Engineering Department, Jadavpur University, Kolkata started his discussion on “Genetic Algorithm”. Sir

discussed with the faculty members the different stages of the algorithm in a very lucid manner by giving real-life problems. Every faculty members gave good response to this session.

In the second session Dr. Sunita Halder, Associate Professor, Electrical Engineering Department, Jadavpur University, Kolkata shared her views on the topic “Load flow and related Power system problems: Programming issues”. She explained the different issues faced during programming and also guided the participants to tackle such issues.

In the third session Dr. Soma Biswas, Assistant Professor, Electrical Engineering Department, JIS College of Engineering, Kolkata started her discussion on the topic “Solving DG Placement Problem Using Genetic Algorithm”. She explained development on GA based algorithm to solve Distributed Generation placement problem.

The sessions were attended by approximately 25 participants.

Date: 11th July 2016 (Third Day)

On the third day Dr. Madhubanti Maitra, Professor, Electrical Engineering Department, Jadavpur University, Kolkata discussed about the topic “Introduction to Particle Swarm Optimisation (PSO) Technique: A popular Evolutionary Optimisation Tool”. She discussed about the different rules and algorithms used in this technique and also explained its applications.

In the second session Mr. Dibyendu Roy, TCS Innovation Lab, Kolkata started his discussion on the topic “Application of Particle Swarm Optimisation in Control and Robotics”. He explained the present challenges faced in implementation and also justified the proposed solutions by giving examples.

The sessions were attended by approximately 25 participants.

Date: 12th July 2016 (Fourth Day)

On the fourth day Dr. Sandip Chatterjee, Department of Mathematics, Heritage Institute of Technology, Kolkata shared his views on the topic “On some applications of Convex Optimisation”. He discussed about the basic applications in a very simple manner.

In the second session Dr. Amit Konar, Professor, Department of Electronics and Telecommunication Engineering, Jadavpur University, Kolkata shared his views on “Swarm and Evolutionary Optimisation Algorithms – An Introduction”. He also proposed different modifications in the algorithm that led to other evolutionary optimisation methods. His session was elaborated by real-life problems which enabled all the participants to understand the topic very easily.

In the third session Dr. Pratusha Rakshit, Assistant Professor, Department of Electronics and Telecommunication Engineering, Jadavpur University, Kolkata “Motion planning and Box pushing by a Robot Team using Evolutionary Algorithms” She explained the different computer simulation results obtained for various real life problems.

The sessions were attended by approximately 25 participants.

The session ended with a vote of thanks to all the resource persons for enriching the participants. Dr. Satadal Mal, Head, EE Department, HIT-K gave everyone best wishes for making the workshop program a successful one.


Dr. Satadal Mal
Professor & Head,
Electrical Engineering
Heritage Institute of Technology
Kolkata

Report on

SEMINAR ON "CONSERVATION OF PETROLEUM PRODUCTS"

A seminar was organized jointly by Mechanical and Chemical Engg. Department on 13th February 2020 at Mechanical Engineering Department Seminar Hall.

The Theme of the seminar was "Conservation of Petroleum products" under the aegis of "SAKSHAM 2020", an initiative of Ministry of Petroleum & Natural Gas. The speakers were Mr. Subir K. Somadder, Deputy General Manager – I&C Region. of BPCL and his team members. Mr. Somaddar was introduced to the attendees by his team member.

Mr. Somadder gave a short talk on the profile of HPCL and how it evolved from a private company to a giant PSU through mergers and acquisitions. HPCL is now a Maharatna company because of its consistent turnover and profit over a certain level set by Govt. of India. Mr. Somadder talked about the refining capacity of its existing refineries at Mumbai and Visakh and upcoming refineries at Bhatinda and Mangalore. He also elaborated on the competition and various challenges of Oil Company. He briefly elaborated on the recruitment process followed by HPCL for fresh engineering graduates. After the talk he asked all the attendees to read a pledge on conservation of petroleum products.

Mr Somaddar's team member then gave a talk on driving habits that would result in less usage of petrol. That was followed by a question answer session in which students as well as faculty members actively participated. The seminar was attended by about **80 students** from Mechanical and Chemical Engineering department and about **20 faculty members**.

The seminar ended with a vote of thanks from Dr. Sukanta Sarkar, HOD, ME Department.



Dr. Sukanta Sarkar
12/07/2021

Dr. Sukanta Sarkar
Associate Professor & Head
Department of Mechanical Engineering
Heritage Institute of Technology
Kolkata - 700 107

Report on

Research Methodology Course being conducted at HITK, 2016

Department of Mechanical Engineering, Heritage Institute of Technology, Kolkata conducted a course "Research Methodology Course is being conducted at Heritage Institute of Technology, Kolkata" with a request of Registrar, MAKAUT (Formerly WBUT), Kolkata (Ref. No. 08.03/Regis/PhD/2016 dated 8th March 2016). Prof. (Dr.) Amal Kumar Ray, Associate Professor, ME department was the Course Coordinator.

Prof. Pranay Chaudhuri inaugurated the above course on 6th September, 2016 in the room number 108 (ME seminar room), CME building.

The course duration was 6th September, 2016 to 29th November, 2016. Total 10 number PhD students from different institutes enrolled the said course. Some in-house senior faculty members and some external renowned faculty members from Jadavpur University and few experts from industry conducted the classes. University paid the faculty members honorarium. The above course was ended successfully.


19/07/2021

Dr. Sukanta Sarkar

Head, ME dept.

Heritage Institute of Technology

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Dr. Sukanta Sarkar
Associate Professor & Head
Department of Mechanical Engineering
Heritage Institute of Technology
Kolkata - 700 107

Report on

Research Methodology Course being conducted at HITK, 2017

Department of Mechanical Engineering, Heritage Institute of Technology, Kolkata conducted a course "Research Methodology Course is being conducted at Heritage Institute of Technology, Kolkata" with a request of Registrar, MAKAUT (Formerly WBUT), Kolkata (Ref. No. 01.02/Conv./PhD-RM/2017 dated 12/07/2017). Prof. (Dr.) Amal Kumar Ray, Associate Professor, ME department was the Course Coordinator.

Prof. Pranay Chaudhuri, Principal, Heritage Institute of Technology inaugurated the above course on 11th September, 2017 in the room number 004 (ME Class room), CME building.

The course duration was 11th September, 2017 to 20th November, 2017. Total 14 number of PhD students from different institutes enrolled the said course. Some in-house senior faculty members and some external renowned faculty members from Jadavpur University and few experts from industry conducted the classes. University paid the faculty members honorarium. The above course was ended successfully.

Dr. Sukanta Sarkar
15/07/2017

Dr. Sukanta Sarkar

Head, ME dept.

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Dr. Sukanta Sarkar
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Report on

Special Talk on MECHANICAL ENGINEERING by Prof. Shuvra Das (on July 29, 2019)

Department of Mechanical Engineering, Heritage Institute of Technology, Kolkata organized a "Special talk on Mechanical Engineering" by Prof. (Dr.) Shuvra Das, Professor of Mechanical Engineering, director of international program, University of DETROIT MERCY at 12.25 pm on 29th July 2019 in Swami Vivekananda Auditorium, HITK.

266 number students from mechanical engineering department and few number staff & faculty member from our department were participated the session. Dr. Das discussed in detailed various aspect of mechanical engineering and latest trends in mechanical engineering. He specially shared his practical experiences earned from various institute and industry. He shared different research activities. Mainly he emphasized modern research on Electric Vehicle design.

Lot of students participated question answer sessions and our students gathered huge information regarding research facilities and higher education opportunities.

Prof. Das mentioned that following online courses are offering University of Detroit Mercy in graduate level certificate program in Advanced Electric Vehicles. This is a 15 credit (5 course) certificate program that was originally created in partnership with Ford Motor Company and many current engineers from the Detroit Automotive Companies have gone through it. The structure of the program is as follows:

For the certificate:

There are three required courses:

- 1) **Introduction to Advanced Electric Vehicles**
- 2) **Energy Storage and Battery Technologies**
- 3) **Controls of Advanced Electric Vehicles**

Two electives out of the following four courses:

- 4) **Electromechanical energy conversion and electric drives**
- 5) **Power Electronics**
- 6) **Systems Architecture for Electric Vehicles**
- 7) **Systems Engineering for Electric Vehicles**

All these courses will be offered on-line, although about 2-3 per semester. One does not need to take all the classes and can get separate credits for successful completion of each class and perhaps separate acknowledgement for individual classes (say a badge or something similar, to be determined).

This link from their webpage gives information about the program:

<https://eng-sci.udmercy.edu/academics/engineering/aev.php>

And this link gives information about their tuition structure:

<https://www.udmercy.edu/admission/financial-aid/cost/index.php>.

Dr. Das
12/03/2021

Dr. Sukanta Sarkar
Associate Professor & Head
Department of Mechanical Engineering
Heritage Institute of Technology
Kolkata - 700 107

A REPORT ON WORKSHOP “BIG DATA ANALYTICS”

The Department of Information Technology has organized a 6 day workshop on “**Big Data Analytics**” for faculty members of HITK and other institutes from 21st September to 26th September, 2016.

Workshop on
“BIG DATA ANALYTICS”

Under

**Technical Education Quality Improvement Program
(TEQIP - II)**

September 21-26, 2016

Organized By:

**Department of Information Technology,
Heritage Institute of Technology, Kolkata- 700107
(India).**

www.heritageit.edu

GOAL of this workshop is to provide a forum for exchanging ideas and information on current research studies, challenges, system developments, and practical experiences in the emerging field of Big Data Analysis.

The workshop includes topics related to MapReduce framework, Hadoop system, big data analytics platforms, NoSQL databases, Introduction to Cloud Computing, Developing a Map Reduce Application. In addition Lab sessions includes Setting up a Hadoop Cluster, Cluster specification, Cluster Setup and Installation, Hadoop Configuration, Security in Hadoop, Administering Hadoop, HDFS – Monitoring & Maintenance, Hadoop benchmarks, Hadoop in the cloud.

FOCUS AREA OF THE PROGRAM

Day1

- Introduction to Data Science
- Language of social media: from hashtags to question topics.

Day2

- HPC and Cloud Computing
- Introduction to Openstack

Day3

- Introduction to Hadoop
- Introduction to Map Reduce Paradigm

Day4

- Hadoop and Mapreduce
- Introduction to NoSQL Database : HBase

Day5

- Spark: In memory distributed computation for Big Data. Systems and Algorithms for distributed Machine Learning.
- Introduction to NoSQL Database : HBase

SPEAKERS

Prof. C.A.Murthy

Prof. Murthy obtained B. Stat (Hons), M. Stat. and Ph. D. degrees from the Indian Statistical Institute (ISI). He visited the Michigan State University, East Lansing in 1991-92 for six months, and the Pennsylvania State University, University Park for 18 months in 1996 - 97. He is a Professor in the Machine Intelligence Unit of ISI. His fields of research interest include Pattern Recognition, Image Processing, Machine Learning, Neural Networks, Fractals, Genetic Algorithms, Wavelets and Data Mining. He received the best paper award in 1996 in Computer Science from the Institute of Engineers, India. He received the Vasvik award along with his two colleagues for Electronic Sciences and Technology for the year 1999. He is a fellow of the National Academy of Engineering, India and National Academy of Sciences, India. He was the head of the Machine Intelligence Unit, ISI from 2005 to 2010.

Prof. Animesh Mukherjee

Prof. Animesh Mukherjee received his PhD from the Department of Computer Science and Engineering, Indian Institute of Technology, Kharagpur with a thesis on *self-organization of human speech sound inventories*. Presently he is an Associate Professor in the Department of Computer Science and Engineering, Indian Institute of Technology, Kharagpur. Prior to this, he was working as a post doctoral researcher in the Complex Systems Lagrange Lab, ISI Foundation, Italy. He received Young Scientist Award from Indian National Science Academy, in the year 2014, and Young Engineer Award from Indian National Academy of Engineering, in the year 2012. He also received Young Scientist Award from Indian Science Congress Association (ISCA) in the year 2006. His main research interests center around applying complex system approaches (mainly complex networks and agent- based simulations) to different problems in (a) human language evolution and change, (b) web social media, (c) information retrieval and (d) natural language processing.

Mr. Jayanta Parial

Mr. Jayanta Parial completed his Graduation in Engineering from NIT Hamirpur (HP) in 1998 (Majoring in Electronics & Communication.) and joined CDAC Kolkata as a principal engineer in Aug 1998, working in Networks & Information Security & FOSS Group. He was deputed to CERT-IN from 2003 till 2005 as a founding member. He is trained on Information Security in CERT, USA, the SANS Institute, USA, IISc Bangalore, CINS Pune. He is the Co-investigator of DIT sponsored Cyber Forensics and Cloud project. Presently he is the section Head, Cyber Security & Networking in CDAC Kolkata. He is a certified ECSA (EC security Analyst) and presently pursuing PhD on Cloud Forensics in NIT Durgapur.

Mr. Kousik Maiti

Mr. Kousik Maiti has completed his B. Tech in Computer Science and Engineering, and joined CDAC Kolkata as a technical officer. He has 9 years of Industry Experience with exposure in OS internals, Linux System Administration, Cloud Administration, Cyber Forensics and Mobile Forensics, Database, Bigdata. He worked as a key technical member of the PANC-DAC Cloud project from Kolkata and has developed a Cloud test bed on OpenStack. He is also a Faculty member on Information Security and Cyber Forensics at Central Detective Training School, Kolkata, and is the trainer for CDAC PG Diploma Courses and ISEA project. He is a certified ECSA (EC Council Security Analyst) and RHCSA (Red Hat Certified System Administrator)

Prof. Himanshu Gupta

Mr. Himanshu Gupta obtained his B.Tech from IIT Kanpur and his MS from IIT Delhi, both in Computer Science. Currently he is working as a Technical Staff Member with IBM India Research Lab. His R&D work has been around the domains of Hadoop and Map-Reduce Processing, Databases, Data management, Internet data analysis and evolutionary computation. Currently he is working on BLAST (A Big Data Platform for Analytics on Spatio- Temporal Data) which aims at providing support for processing spatio-temporal data on IBM BigInsights platform. Some of the other projects at IBM, he have been involved in are SCORE, EROCS, ERASE, CallAssist, Analytics-Stage etc.

Prof. Sourangshu Bhattacharya

Mr. Sourangshu Bhattacharya completed his B.Tech. in Civil Engineering from I.I.T. Roorkee and his M.Tech. in Computer Science from I.S.I. Kolkata. He completed his PhD in Computer Science, from the Dept. of Computer Science & Automation, Indian Institute of Science, Bangalore. He has joined IIT Kharagpur, as an Assistant Professor in the Department of Computer Science and Engineering. Prior to joining IIT Kharagpur, he was working as a Scientist in Yahoo! Labs, Bangalore. At Yahoo!, he was working on improving the Click Through Rate prediction system for the RightMedia Ad Exchange and was also working on learning from crowdsourced labels and learning word segmentation. His PhD research areas included Bioinformatics and Machine Learning.

ORGANIZING Committee

Chief Patron:

Mr. H. K. Chaudhary, Chairman, Kalyan Bharti Trust, Kolkata

Patrons:

Prof. Pranay Chaudhuri, Principal & TEQIP-II Head, HITK

Prof. D. C. Ray, TEQIP-II Coordinator, HITK

Mr. Probir Roy, Director, Kalyan Bharti Trust

Mr. P. K. Agarwal, CEO, Kalyan Bharti Trust

Prof. B.B. Paira, Advisor, Kalyan Bharti Trust

Prof. S. N. Biswas, Deputy Director, HITK

Principal Coordinator:

Prof. Tapan Chakrabarti, HOD, Dept. of IT, HITK

Coordinators:

Prof. Anindya Jyoti Pal, Dept. of IT, HITK

Prof. Rituparna Sinha, Dept. of IT, HITK

Other Committee Members:

Prof. Satarupa Biswas, Dept. of IT, HITK

Prof. Hemanta De, Dept. of IT, HITK

Prof. Rudranath Mitra, Dept. of IT, HITK

Prof. Susobhan Baidya, Dept. of IT, HITK

Prof. Sandipan Dutta, Dept. of IT, HITK

Prof. Sudipta Bhadra, Dept. of IT, HITK

Prof. Uttam Kr. Dash, Dept. of IT, HITK

Prof. Deep Malya Mukhopadhyay, Dept. of IT, HITK

Prof. Bappa Sarder, Dept. of IT, HITK

Prof. Smritikona Barai, Dept. of IT, HITK

Prof. Rajib Biswas, Dept. of IT, HITK

Prof. Joydev Hazra, Dept. of IT, HITK

Schedule of Speakers

Day 1: Wednesday, 21st September

1. Prof. C.A.Murthy

Professor C.A. Murthy is coming from ISI, Kolkata, Machine Intelligence Unit. His lecture is scheduled on 1st half. From 10.30 AM – 1.00 PM.

2. Prof. Animesh Mukherjee

He is an associate professor from IIT Kharagpur, in the department of computer science. His lecture session is scheduled in the second half on that day. He will be coming via car from IIT-KGP and return on that very day.

Day 2 and Day 3: Thursday and Friday, 22nd and 23rd September

1. Mr. Jayanta Parial

2. Mr. Koushik Maity

Mr. Jayanta Parial is a principle engineer in CDAC Kolkata and Mr. Koushik Maity is a technical officer in CDAC. They are coming from CDAC and full taking altogether 4 sessions on the above 2 days, where each session is of 3 hours.

Day 4 : Saturday , 24th September

1. Prof. Himanshu Gupta

He is Technical staff member with IBM Research Lab, Delhi. He will be coming on Friday night (late night) in flight. He will stay in a hotel (Pipal Tree, near airport). Saturday full day from 10:00 AM – 5.00 PM, he will conduct his lecture session. That very day he will fly back to Delhi.

Day 5: Monday, 26th September

1. Prof. Sourangshu Bhattacharya

He is an assistant professor in the department of computer science, in IIT Kharagpur. He will drive from IIT KGP to Kolkata. He is conducting lecture session throughout the day, from 10:00 AM – 5.00 PM.

PARTICIPANTS

ELIGIBILITY FOR PARTICIPATION

The course is open to faculty and staff members of engineering colleges, research institutes and universities across India.

COURSE FEE

Rs. 1000/- per participant. (Payment should be made through Demand Draft only)

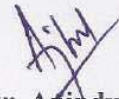
Annexure – I

Tentative participants

Participants	No. of Participants
From HITK (IT, CSE, AEIE, ECE,MCA)	50
From other institutes	10
Total	60

R. Sinha

Ms. Rituparna Sinha
Joint Coordinator



Dr. Anindya J. Pal
Joint Coordinator

Annexure – II

Tentative list of Delegates

1. Prof. C. A. Murthy, Professor, Machine Intelligence Unit, Indian Statistical Institute.
2. Prof. Animesh Mukherjee, Associate Professor , Department of Computer Science and Engineering, Indian Institute of Technology, Kharagpur.
3. Mr. Jainto Pariyel , Principle Engineer, CDAC, Kolkata
4. Mr. Koushik, Principle Engineer, CDAC, Kolkata
5. Mr. Himanshu Gupta, Technical Staff Member, IBM India Research Laboratory, New Delhi, India
6. Dr. Sourangshu Bhattacharya, Asst Professor, Department of Computer Science and Engineering, Indian Institute of Technology, Kharagpur

R. Sinha

Ms. Rituparna Sinha
Joint Coordinator

A. J. Pal

Dr. Anindya J. Pal
Joint Coordinator

HERITAGE INSTITUTE OF TECHNOLOGY
Workshop on "Big Data Analytics" under Technical Education Quality Improvement
Program (TEQIP II)
September 21 - 26, 2016

list of Registered candidates

Sl. No.	Name	Designation	e- mail	Mobile No.	Food	DD No. & Bank Name	Signature
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4	AMITAVA ACHARYA	Assistant Professor, CSE			Non Veg		
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10	ANTIKA SARKAR	Technical Assistant, CSE			Non Veg		for Surajit Dasgupta
11	ARINDAM CHATTERJEE	Assistant Professor, CSE	Arindam		Non Veg		Arindam
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Signature

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37	RUDRANATH MITRA	Assistant Professor, IT			Non Veg	
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45	SARBANI SARKAR	Technical Assistant, CSE			Non Veg	Sarbani Sarkar
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49	SIDDARTHA BOSE	Technical Assistant, IT	fer		Non Veg		signature S. Bose
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64	SURAJIT ACHARYA	Technical Assistant, CSE	surajit.acharya@heritageit.edu	9831677218	Non Veg		Surajit Acharya
65	SUSOBHAN BAIDYA	Assistant Professor, IT			Non Veg		S. Baidya
66	TAPAN CHAKRABARTI	HOD, IT			Non Veg		
67	TIMIR MAITRA	Technical Assistant, IT			Non Veg		T. Maitra
68	UTTAM DASH	Assistant Professor, IT			Non Veg		U. Dash

bill due

Course Work on "Research Methodology" conducted at Heritage Institute of Technology

Heritage Institute of Technology had conducted course work on "Research Methodology" at the Institute premises in the years 2016-2017 and 2017-2018. Participating individuals were all enrolled for PhD at WBUT(now known as MAKAUT) and from different parts of West Bengal. Topics covered included statistical data analysis, spreadsheet tool, presentation tool, thesis writing and editing tools etc. An examination was conducted at the end of course work and the students were graded on their performance.

Research draws its power from the fact that it is sometimes empirical: rather than merely theorizing about what *might* be effective or what *could* work, researchers go out into the field and design studies that give policymakers hard data on which they can base their decisions. Furthermore, good research utilizes methodologies that can be replicated, produces results that are examinable by peers, and creates knowledge that can be applied to real-world situations. The study of research methodology gives a training to the researcher that they can apply them to a problem. It provides the necessary training in choosing methods, materials, scientific tools and training in techniques relevant for the problem chosen and is hence a very important area of study. Methodology clarifies the research inquiry and why the inquiry is imperative. It clarifies the initial stage of the research, the bearings of the research and the conceivable ramifications of the research when it is finished.

Subhashis Majumder.

.....
(Dr. Subhashis Majumder)
Professor & HOD
Department of Computer Science & Engineering
Dean UG
HITK
Date: 14/08/2021

Report on Student Workshop, 2017

The Department of Electronics and Communication Engineering (ECE) is organizing a "Circuit Making Workshop" for the B.Tech 3rd Year Students since 2006.

As a part of this workshop, various challenging circuits were given to the students. They were instructed to design these circuits first using simulator tools. Subsequently, they fabricated these circuits. The annual "Circuit Making Workshop" for the ECE third-year students took place on 27th March 2017. Almost all the 3rd year students took part in this workshop. Students spent the entire day in the laboratories making these circuits followed by testing and final demonstration.

This year Prof. Abhishek Das coordinated the "Circuit Making Workshop". Moreover, all the departmental Faculties and Technical Assistants were involved in the smooth functioning of this workshop, and every year they are helping the department to conduct the workshop very successfully.

This kind of workshop gives the students the chance to explore their talent beyond classroom activity and they get exposure to real design and testing.



HOD, ECE Department
Heritage Institute of Technology
Kolkata



Circuit Making Workshop 2017



Summary of Student Workshop, 2018

The Department of Electronics and Communication Engineering (ECE) conducted the annual workshop - "Circuit Making Workshop" for the ECE 4th year Students between 30th July and 3rd August 2018.

As a part of this workshop, various interesting and challenging topics were first selected by a team of teachers in consultation with the TAs of the department. Their feasibility was studied in terms of a few parameters. The important parameters were the availability of the components in the laboratories, the approximate time to be taken for the completion of the total job-fabrication, testing, fault finding. Then the topics for the circuits were given to the students. They used the available infrastructure of the laboratory to make and test the circuits.

This workshop is also considered to be part of Extra Classroom Activities. Hence ECE 4th year students also got the chance to earn 30 points by participating in this workshop. Almost all the final year students took part in this workshop. Students showed great interest and enthusiasm to design and complete the circuits from the component level.

This year Prof. Shounak Dasgupta coordinated the Workshop. A large number of teachers and TAs assisted him to make it a success. Without the participation of most members, such an activity is difficult to conduct and our department succeeded because of the participation factor.

This kind of workshop gives the students the chance to cement their theoretical ideas and acquire practical skill, so essential for an engineer.



13
HOD, ECE Department
Heritage Institute of Technology
Kolkata



Circuit Making Workshop 2018



Report on Student Workshop, 2019

The Department of Electronics and Communication Engineering (ECE) organized the annual design workshop, popularly known as "Hardware & Software Workshops" for ECE 3rd year Students between 22nd and 26th July 2019.

This year the workshop was carried out in two distinct areas- hardware and software. As a part of this workshop, various circuits/designs with interesting applications were given to the students. One of the key features of the problems, selected by a team of faculty members, was that those are not part of any laboratory curriculum. The simulator software used was open-source software and for the hardware workshop, the available infrastructure of the laboratory was used to fabricate the circuits.

This workshop is also considered to be part of Extra Classroom Activities. As a result, the ECE 3rd year students also got the chance to earn 30+30=60 points by participating in this workshop. Almost all the 3rd year students participated in this workshop with great enthusiasm. Students spent the entire day making these circuits/designing the virtual circuits and with a keen sense of competition.

This year Prof. Rajib Ranjan Pal coordinated the Hardware Workshop and Prof. Susovan Mandal coordinated the Software Workshop. Such a big activity requires involvement of all the team members of the department. In our case also, the whole ECE team contributed to the success of the exercise.

This kind of workshop gives the students the chance to explore their talent beyond classroom activity and also helps them to acquire some ideas about fabrication and trouble-shooting.



HOD, ECE Department
Heritage Institute of Technology
Kolkata



Hardware & Software Workshops 2019



Summary of workshop, 2020

The Department of Electronics and Communication Engineering (ECE) organized the annual workshop entitled "Circuit making Workshop" for the ECE 3rd year and 2nd year students between 5th and 11th February 2020. This year the workshop was carried out in two distinct domains - hardware and software.

As projects of the workshop, various challenging circuits were given to the students. Hardware-based problems were given to the 3rd year students. The 2nd year students were assigned software-based design problems. Students have used open-source software and the available infrastructure of the laboratory to make these circuits or solve the problems using the simulators.

This workshop is also considered to be part of Extra Classroom Activities. Hence ECE 3rd year and 2nd year students also got the chance to earn 30 points by participating in this workshop. Almost all the 3rd year and 2nd year students took part in this workshop. Students were very enthusiastic about their circuits and designs. They worked tirelessly for the entire day trying to achieve their objectives.

This year Prof. Rajib Ranjan Pal coordinated the Hardware Workshop and Prof. Susovan Mandal coordinated the Software Workshop. In addition to this, the entire team of dedicated departmental faculty members and Technical Assistants worked hard to ensure the success of the workshops.

This activity has become a part of our academic calendar. This kind of workshop gives the students the chance to cement at least some of their theoretical knowledge through practical application. They have the freedom to design and try ideas beyond curriculum. It helps them to develop into better engineers.



HOD, ECE Department
Heritage Institute of Technology
Kolkata



Circuit making Workshop 2020



In continuation of the Lord of the Tracks Robotics Workshop Series, the third workshop of the series, Lord of the tracks 3.0 was held on 09.02.2019. This autonomous robot design workshop had 24 participants. The participants were guided by IEEE EDS Student Volunteers. The workshop was organized by the IEEE ED HIT Student Branch Chapter and the IEEE EDS Center of Excellence.



Student Volunteers and participants in the event Lord of the Tracks 3.0 on 09.02.2019



The IEEE EDS Center of Excellence, HITK organized a 2-DAY Autonomous Robotics Workshop for the students of The Heritage School. It was attended by 14 students who were assisted by 7 IEEE student volunteers. In this workshop, the students learnt about robotics using a "hands-on" approach. The goal was to encourage them to consider Electrical and Electronics Engineering as a career and mostly understand that technology can be exciting. The Center was visited by Dr. M. K. Radhakrishnan, Vice President, IEEE Electron Device Society (Regions and Chapters) on September, 3, 2019. He interacted with the students of the branch chapter as well as some beneficiaries of the Center.



Snapshots of the 2-DAY Autonomous Robotics Workshop and visit by Dr. M. K. Radhakrishnan



Brief Report on VLSI FDP Workshop “VLSI Design Trends and Challenges”

Prof. Krishanu Datta

Associate Professor, ECE Department

FDP Workshop on “**VLSI Design Trends and Challenges**” took place on **9th and 10th May, 2016** in Swami Vivekananda Auditorium, Central Block of Heritage Institute of Technology. This Workshop was organized by Department of Electronics and Communication Engineering and sponsored by TEQIP-II. Total Participants were 77 which include Members from Department of ECE, CSE, IT, AEIE and ME. Also, there were 3 participants from other Institutes like Jadavpur University and Burdwan University.

On 9th May, the Workshop was inaugurated by Prof. Ajay Kumar Ray, Director, IEST, Shibpur. Prof. Ray talked on evolution of VLSI & Microchip development and thus set the tone for the program. After that, 1st Speaker was Mr. Biswadeep Chatterjee, Staff Manager of Qualcomm. He discussed on Complete Product and Design Cycle of VLSI Chip. Next Program was Open Session by Mr. Biswadeep Chatterjee and Mr. Mrinal Das. Mr. Mrinal Das delivered his speech during post lunch session. Mr. Das is co-founder and VP of Sankalp Semiconductor, he talked on ESDM opportunity in India.

On 10th May, the workshop started with the speech of Dr. Prajit Nandi, Director of Sankalp Semiconductor. He talked on VLSI Market and Design opportunity in Analog and Mixed Signal Domain. Next speaker was Prof. (Dr.) Ajit Kumar Panda, Dean NIST. Dr. Panda talked about India Chip Program, how Micro Chip can be developed in academic environment under guidance of Industry.

The entire workshop was coordinated by Prof. Krishanu Datta, Associate Professor and VLSI Lead in ECE Department.



HOD, ECE Department
Heritage Institute of Technology
Kolkata

FDP ON ADVANCES IN MECHANICAL ENGINEERING (25 - 29 July 2016)

Department of Mechanical Engineering, Heritage Institute of Technology, Kolkata organized a Five Day "FDP" on Advances in Mechanical Engineering "(from 25/07/2016 to 29/07/2016) under the aegis of TEQIP-II.

KBT (Kalyan Bharti Trust) , a public charitable foundation established in the year 1990 with a group of twenty –two likeminded industrialists in Kolkata to promote and provide higher education in the country in the state of West Bengal.

A harmonious integration of valued traditions with modern outlook is the guiding principle behind the development of the academic environment that constituted the basic philosophy of various Institutes of KBT.

Mechanical Engineering Department of HITK was established in 2001 as a supporting department. In the year 2011, it started offering B. Tech in Mechanical Engineering and the first batch graduated in 2015. The department has well equipped labs for CAD/ CAM, machine dynamics, thermal, IC Engine, fluid, fluid power, material testing, foundry, welding, carpentry, metal cutting and an advanced manufacturing

Workshop on "Advances in Mechanical Engineering" covered the broad spectrum pertaining to the recent advancement in Mechanical Engineering in various fields like traditional manufacturing processes, Laser Beam machining, mechatronics, microfluidics, high speed & precision machining processes and advanced engineering materials. These are amalgamated and well blended with the recent trends and advances globally in the arena of mechanical engineering. The tools and the machineries involved for super finishing operations to achieve the targeted productivity with economical uses of resources will be a major thrust in this FDP. The technology that combines modern mechanical devices such as servo valves for hydraulic control, cutting tools and machine tools involved in current and most advanced manufacturing technology acceptable worldwide will also be an important theme of the discussions by the eminent speakers having authority on the subjects, in this workshop. It is needless to mention that this programme will build a bridge between the industry and the academic personnel.

Contents: The Programme covered the following broad topics:

- ❖ Conventional manufacturing processes
- ❖ Tool development and precision machining
- ❖ Non traditional manufacturing processes
- ❖ Advances in heat power and hydraulics
- ❖ Advanced engineering materials
- ❖ Mechatronics
- ❖ Demonstration on Solid modelling, FEM & FVM software

Participants were the entire Faculty Members & TA'S of The Department of Mechanical Engineering

The Speakers were included from various noted Engineering Institutes in the country.

Sukanta Sarkar
12/07/2016

Dr. Sukanta Sarkar
Associate Professor & Head
Department of Mechanical Engineering
Heritage Institute of Technology
Kolkata - 700 107

Department: Mathematics, Academic Session: 2016-17

International Conference on 'Frontiers in Optimization: Theory and Applications'(FOTA-2016)

Number of Participants: 100 , Date From-To: November 24-26, 2016

Report on FOTA-2016

The International Conference on Frontiers in Optimization: Theory and Applications (FOTA-2016) was held on November 24-26, 2016 at Heritage Institute of Technology, Kolkata. It was organized jointly by Operational Research Society of India, Calcutta Chapter and Department of Mathematics, Heritage Institute of Technology, Kolkata.

On the first day, Professor Vijay Chandru, Co-Founder and Chairman of Strand Life Sciences addressed the gathering in the first plenary session, following which the first keynote address was delivered by Professor Damodar Acharya, former Chairman of AICTE and former Director of IIT-KGP. After the lunch break, four parallel sessions were held in which several papers were presented. In the post-tea session invited talks were presented by Prof. K. S. Chaudhuri of Jadavpur University and Prof. D. K. Bhattacharya, University of Calcutta. The Session Chair was Professor Bani Kumar Sinha, formerly of IIM Calcutta.

In the morning of the second day, several papers were presented in four parallel sessions. These were followed by a keynote address delivered by Prof. Tatsuo Oyama, NGIPS, Tokyo, Japan. The Session Chair was Prof. S.P. Mukherjee, University of Calcutta. Thereafter, Prof. S.P. Mukherjee delivered a keynote address in a session chaired by Prof. Tatsuo Oyama. After the luncheon, papers were presented in three parallel sessions. After the tea break, invited talks were delivered by Prof. Ujjwal Moulik, Jadavpur University and Mr. Atanu Mukherjee, Dastur Business and Technology Consulting, India. In the evening, the Best Paper Award was announced and a cultural programme was staged. This was followed by a banquet.

On the third day, a keynote address was delivered by Prof. Baoding Liu of Tsinghua University, China, in a session chaired by Prof. Mihir Chakraborty, formerly of the University of Calcutta. This was followed by an invited talk delivered by Prof. Alok Ray, formerly of IIM, Calcutta in a session chaired by Prof. R. N. Mukherjee, the General Chair of the conference. Prof. Mukherjee chaired the next session too, in which an invited talk was delivered by Prof. S.K. Mishra of Banaras Hindu University, India. This was followed by an invited talk delivered by Prof. Debabrata Datta of BARC, India. Thereafter, Prof. Pawan Lingras of Saint Mary's University, Halifax, Canada presented the last invited talk. This was followed by a valedictory session, at the end of which the conference was declared closed by the General Chair, Prof. R.N. Mukherjee.

In all, 86 papers were presented in the conference, of which around 20 have been selected by Springer for publication in the proceedings. The addresses and presentations covered a wide range of topics such as supply chain strategies; mathematical models for control of growth of plant populations; optimization problems in sample surveys; operations research for social system analysis in Japan; modelling and characterization of complex socio-techno-economic systems; multi-objective clustering for analysis of gene expression data; uncertainty theory; the costs, benefits and consequences of demonetisation; mathematical programs with equilibrium constraints; the use of fuzzy optimization for detection of outliers in experimental data; advances in rough and soft clustering, *et al.* These together succeeded in providing the delegates and participants with a combination of specific insights into, and a broad general view of, the theory and applications of optimization.



(Dr. Somjit Datta)

Organizing Committee Chair, FOTA-2016

Heritage Institute of Technology, Kolkata

Department: Mathematics, Academic Session: 2016-17

International Seminar on Computational Optimisation: Methods and Algorithms

(COMA-2016)

Number of Participants: 35 , Date From-To: November 22-23, 2016

Report on COMA-2016

The International Seminar on Computational Optimisation: Methods and Algorithms (COMA-2016) was held on November 22-23, 2016 at Heritage Institute of Technology, Kolkata, under the aegis of Technical Education Quality Improvement Program (TEQIP-II). It was organised jointly by the Department of Information Technology and the Department of Mathematics. The objective of the seminar was to acquaint the participants with both the latest developments and the classical and traditional methods in the computational areas of the field of multi-objective optimisation.

On the first day, after the inauguration ceremony, Professor Amit Konar, Jadavpur University delivered an invited talk. Thereafter, Professor Amitava Chatterjee, Jadavpur University, delivered an invited talk entitled *Gravitational Search Algorithm: Theory and Applications*.

On the second day, Professor Samarjit Kar, National Institute of Technology, Durgapur, and Professor Baoding Liu, Tsinghua University, China, delivered invited talks entitled *Multi-objective Evolutionary Algorithms* and *Uncertain Programming and Multi-objective Uncertain Programming*, respectively.



Dr. Anindita Maitra Bhattacharyya

HOD, Mathematics

Heritage Institute of Technology



Heritage Institute of Technology, Kolkata

Department of Information Technology

Seminar on Recent Trends on Digital Economy

The department of Information Technology, Heritage Institute of Technology, Kolkata organized a one-day seminar on "Recent Trends on Digital Economy" on 20th September 2019. Dr. Abhijan Bhattacharyya, Scientist in Network Embedded Infrastructure Research Area, TCS Research, Tata Consultancy Services, Kolkata, was the honourable speaker of this seminar. His current areas of interest are network protocols for IoT, machine intelligence enabled low-latency communication, 5G communication, etc. At present he is playing a lead role in representing his organization in Internet Engineering Task Force (IETF). He has led the first ever contribution of TCS to IETF Standard in the form of "RFC 7967". He has been a fellow under the NextGen Leadership Program of Internet Society. He has also actively participated in the efforts to spread awareness on IETF in India through initiatives supported by Ministry of Electronics and IT, Govt. of India.

In this seminar, Dr. Bhattacharyya spoke on recent technology trends, 5G technology: its adaptability with pros and cons. He discussed everything elaborately with examples and analogies and thus the high-end cutting-edge technologies got lucidly explained to the listeners. The learners got hugely benefited from this seminar and a good number of queries got addressed and resolved during this session.

This venue of this seminar was Seminar Hall, A Building. Total number of participants was 72.

Some glimpse of the seminar is attached herewith:





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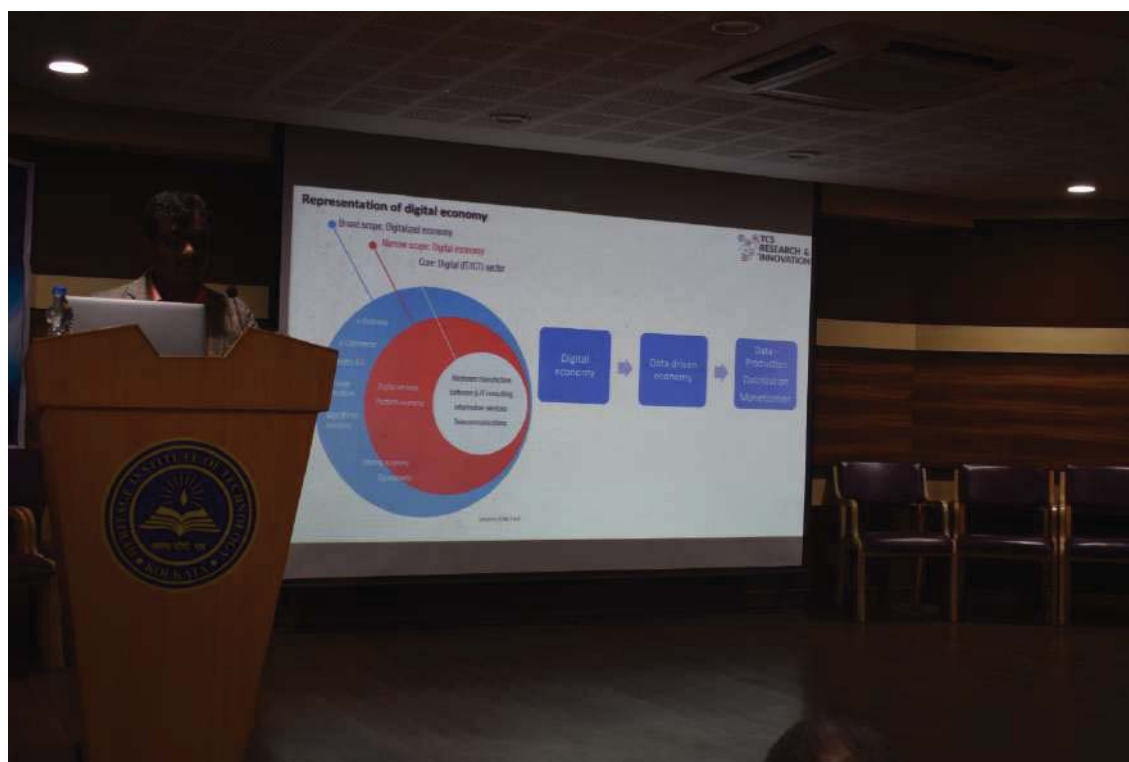
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Heritage Institute of Technology, Kolkata

Department of Information Technology



JH
Prof. Joydev Hazra
Coordinator



Şatarupa Bagchi Biswas
Prof. Şatarupa Bagchi Biswas
Coordinator



Heritage Institute of Technology, Kolkata

Department of Information Technology

A Report on TECHNOVATION 2019

During this part of the year, the department of Information Technology of Heritage Institute of Technology hosts Technovation to catch a glimpse of the challenges that come across along the path of IT sectors. Technovation, a substitute for three independent notions in IT field; Technology, Science and Innovation, perfectly defines the agenda of this label. It brings together these three aspects to provide opportunities for the young developing minds to showcase their talents and skills.

This year, series of events, took place over duration of two days (20th and 21st September 2019), that comprised of

- **Tech Marathon** - where coders compete to bring about the best in themselves.
- **Innovation Meet** – where groups of students from different institutes presented innovative ideas which can solve daily problems of mankind through state-of-the-art aspects of computer science and information technology.
- **TSP (Technovation Smart Project)** – Provided an excellent platform for the revolutionary minds to contribute to our generation through their ingenious ideas manifested through their efforts may it be a working model, power point presentation or a website or an app.
- **Tech-quiz** – provided an interesting reason to learn about the facts and facets of technology, science and innovation.
- **VR Experience Zone** – provided a golden opportunity to experience the state-of-the-art hardware that will define the future of virtual reality.

Technovation is an inter-institute event. This year participants were not only from Heritage Institute of Technology, but also from eminent colleges like Jadavpur University, IEST Shibpur, Techno India, IEM, B P Poddar Institute of Engineering and others.

Mr. Kaushik Bhattacharya, Head - Training & Placement, The Heritage Group of Institutes and Mr. Rahul Basak, Co-founder and CEO of Amar Canvas®, Director of ADRB ART PRIVATE LIMITED also motivated students with their talks and elaborated about requirements of today's industry. Mr. Anirban Mukherjee, Enterprise Architect, Wipro Technologies; Dr. Anindya Jyoti Pal, Controller of Examination, Burdwan University; Mr. Amit Kumar Mahishya Das, Co-founder and COO of Amar Canvas®, Director of ADRB ART PRIVATE LIMITED and Mr. Sayantan Roy judged the innovation and skills of the participants in Innovation Meet and TSP.



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Some Glimpses of the events:





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JH
Prof. Joydev Hazra
Coordinator



Şatarupa Bagchi Biswas
Prof. Şatarupa Bagchi Biswas
Coordinator



Heritage Institute of Technology, Kolkata

Department of Information Technology

Game Development Workshop

The department of Information Technology, Heritage Institute of Technology, Kolkata organized a hands-on workshop on Game Development on 20th September 2019. Under this hands-on workshop the following things were covered –

- Introduction to Game Development.
- Physics involved in Game Development.
- Introduction to Unity.
- JavaScript for Unity.
- Controlling Characters.
- Developing a game using the above tools.
- Live demonstration and examples.

This workshop was hosted at ICT B04. Total number of participants as 44.

Some glimpse of the workshop is attached herewith:





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Coordinator



Şatarupa Bagchi Biswas
Prof. Şatarupa Bagchi Biswas
Coordinator



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Department of Information Technology

Data Integration Workshop

The department of Information Technology, Heritage Institute of Technology, Kolkata organized a hands-on workshop on Data Integration on 21st September 2019. The workshop was conducted by Mr. Sayantan Roy, Senior System Engineer, IBM India. He demonstrated different aspects of data integration like

- Fundamental concepts, principles, and terminology of data integration
- Common methods of data integration with attention to techniques, timing, and integration process automation
- How to perform the essential steps of data integration including requirements definition, data capture, data transformation, and data delivery
- Modelling small case studies in hands-on session using Python.

This workshop was hosted at ICT B01. Total number of participants was 72.

Some glimpse of the workshop is attached herewith:







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Coordinator




Prof. Şatarupa Bagchi Biswas
Coordinator



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Seminar on Innovation

The department of Information Technology, Heritage Institute of Technology, Kolkata organized a one day seminar on “Innovation, a Process to Manage” on 28th September 2018. *Dr. Swarup Mandal, Global Practice Head- New Technology Solution, Manufacturing and High Tech, CTO at Wipro Ltd.* was the honourable speaker of this seminar.

Dr. Mondal delivered his lecture focusing on many upcoming and presently booming technologies of IT world. His lecture revolved round the topics like Autonomous vehicles, 5G, AI/ML, Industrial IoT, Industry 4.0. He motivated the listeners to work on technologies of tomorrow which will redefine the world of Information Technology in near future. He emphasized on the process of innovation and how it is of utmost importance in the global IT industries. Dr. Mondal motivated the learners to innovate something new and thus to prosper in life as young IT professionals and IT scientists.

This venue of this seminar was Seminar Hall, A Building. Total number of participants was 79.

Some glimpse of the seminar is attached herewith:





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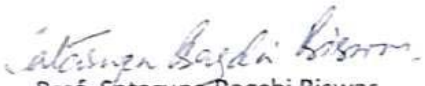
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Prof. Joydev Hazra
Coordinator




Prof. Şatarupa Bagchi Biswas
Coordinator



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A Report on TECHNOVATION 2018

During this part of the year, the department of Information Technology of Heritage Institute of Technology hosts Technovation to catch a glimpse of the challenges that come across along the path of IT sectors. Technovation, a substitute for three independent notions in IT field; Technology, Science and Innovation, perfectly defines the agenda of this label. It brings together these three aspects to provide opportunities for the young developing minds to showcase their talents and skills.

This year, series of events, took place over duration of two days (28th and 29th September 2018), that comprised of

- **TCC (Technovation Coding Challenge)**, where coders compete to bring about the best in themselves.
- **Bug-out** – Debugging is a very essential aspect of the industry that requires spy skills was also imbibed in this event thereby giving budding debuggers a fantastic experience in this domain.
- **Innovation Meet** – where groups of students from different institutes presented innovative ideas which can solve daily problems of mankind through state-of-the-art aspects of computer science and information technology.
- **TSP (Technovation Smart Project)** – Provided an excellent platform for the revolutionary minds to contribute to our generation through their ingenious ideas manifested through their efforts may it be a working model, power point presentation or a website or an app.
- **Tech-quiz** – providing an interesting reason to learn about the facts and facets of technology, science, and innovation.

Mr. Anirban Mukherjee, Enterprise Architect, Wipro Technologies; Dr. Anindya Jyoti Pal, Controller of Examination, Burdwan University; and Mr. Sayantan Roy, Sr. System Engineer, IBM India judged the innovation and skills of the participants in Innovation Meet and TSP.

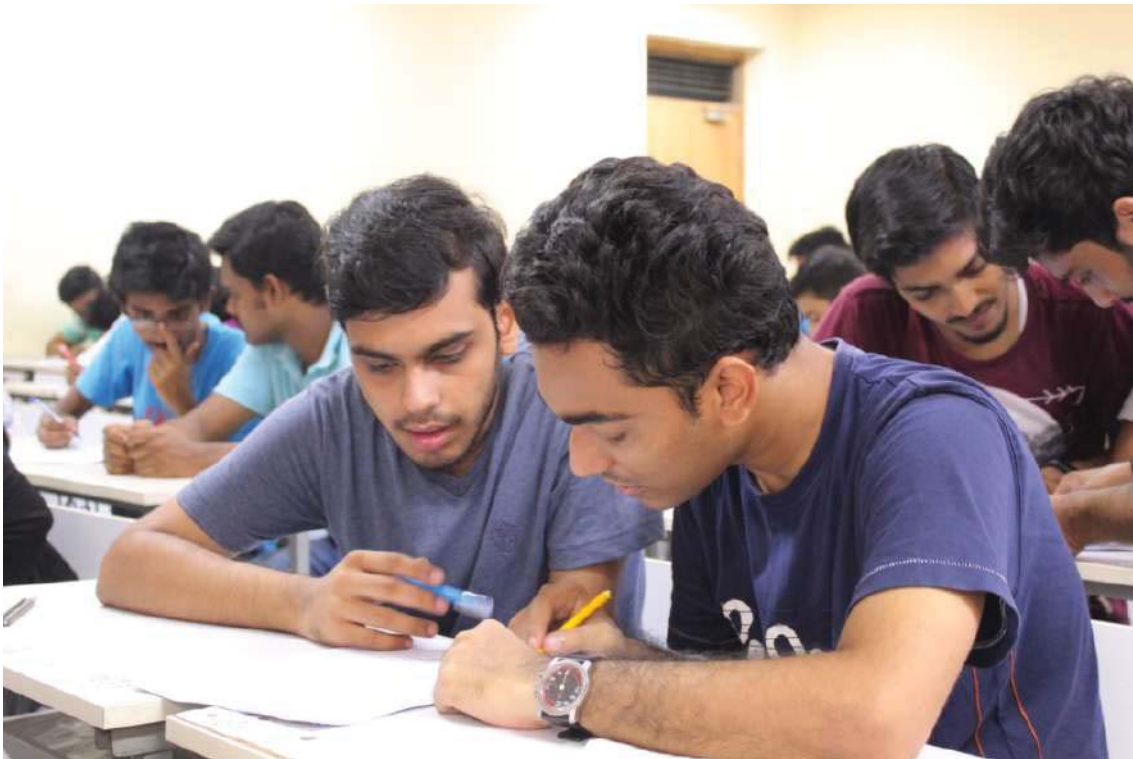
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Some Glimpses of the events:





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Joydev Hazra
Prof. Joydev Hazra
Coordinator



Şatarupa Bagchi Biswas
Prof. Şatarupa Bagchi Biswas
Coordinator



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Department of Information Technology

UI/UX Workshop

The department of Information Technology, Heritage Institute of Technology, Kolkata organized a hands-on workshop on UI/UX development on 28th September 2018. The workshop focused on the various trends and cutting-edge techniques on the field of UI/ UX development that are essential to build good-looking and easy to use applications for web and mobile. It was a hands-on event, and the participants could implement the knowledge they gathered through the demonstration on spot. This workshop explored various stages of UI/UX processes, from design thinking till formulation and more.

This workshop was hosted at ICT B01 and B05. Total number of participants were nearly 79.

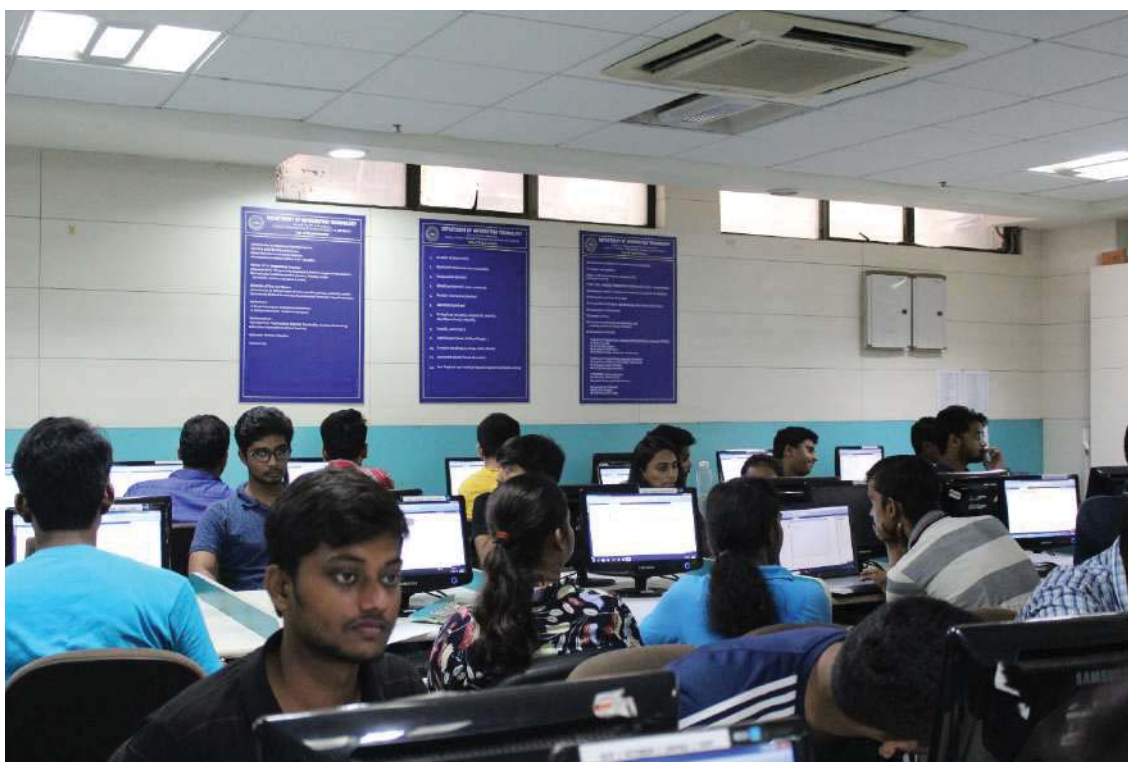
Some glimpse of the workshop is attached herewith:





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Prof. Joydev Hazra

Coordinator



Prof. Şatarupa Bagchi Biswas

Coordinator



Heritage Institute of Technology, Kolkata

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Automation Workshop

The department of Information Technology, Heritage Institute of Technology, Kolkata organized a hands-on workshop on Automation on 29th September 2018. The workshop was conducted by Mr. Sayantan Roy, Senior System Engineer, IBM India. He shared the knowledge of automation in a suitable way for the beginners and the way automation is being adapted in the industry. He elaborated the concepts of functional analysis, FTE, overview of tools, and a few case studies. Later he demonstrated a chat-bot model in the hands-on session and the participants got opportunity to implement it then and there.

This workshop was hosted at Seminar Hall A Building and ICT B01, ICT B04. Total number of participants was 102.

Some glimpse of the workshop is attached herewith:





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Coordinator




Prof. Şatarupa Bagchi Biswas
Coordinator



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A Report on TECHNOVATION 2016

This 23-24 September 2016, the department of Information Technology of Heritage institute of Technology Organized TECHNOVATION 2016-Student Development Program under TEQIP II for students of the institute and the other institutes. This was a student development program wherean array of events was organized to showcase the skills of the students as well as to develop some professional skills in them. This program got a great response from different colleges across the state and the event was a great success. This student development program served as a platform for the students to hone their skills and the students were highly benefitted from the event.

The various events that were organized are as follows:-

1. Code debugging (Hands-on): It enabled the students to know about different ways of error detection .It also developed their analyzing skills and improved the ability to dry run a given problem.
2. Seminar followed by model exhibition on Robotics: The seminar primarily focused on to develop the student's skills of how to build their own manual bot of varieties of configurations.
3. Panel discussion on "Innovative Technology": It was an interactive event based on sharing innovative ideas pertaining to the field of technology. Students came up with an array of different ideas that could be of immense help in the present era upon its implementation. Mr. Soumyatanu Mukherjee, Director, Dreamstech Solutions Pvt. Ltd., and Prof. A. J. Pal, Associate Prof., Dept. of IT, HITK were the respected guests of honor in this event.
4. Critical coding on C, Java, Python, C++ (Hands-on): It developed the students' skill of implementation of various algorithms and real-life problems in different programming languages.



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Some Glimpses of the events:





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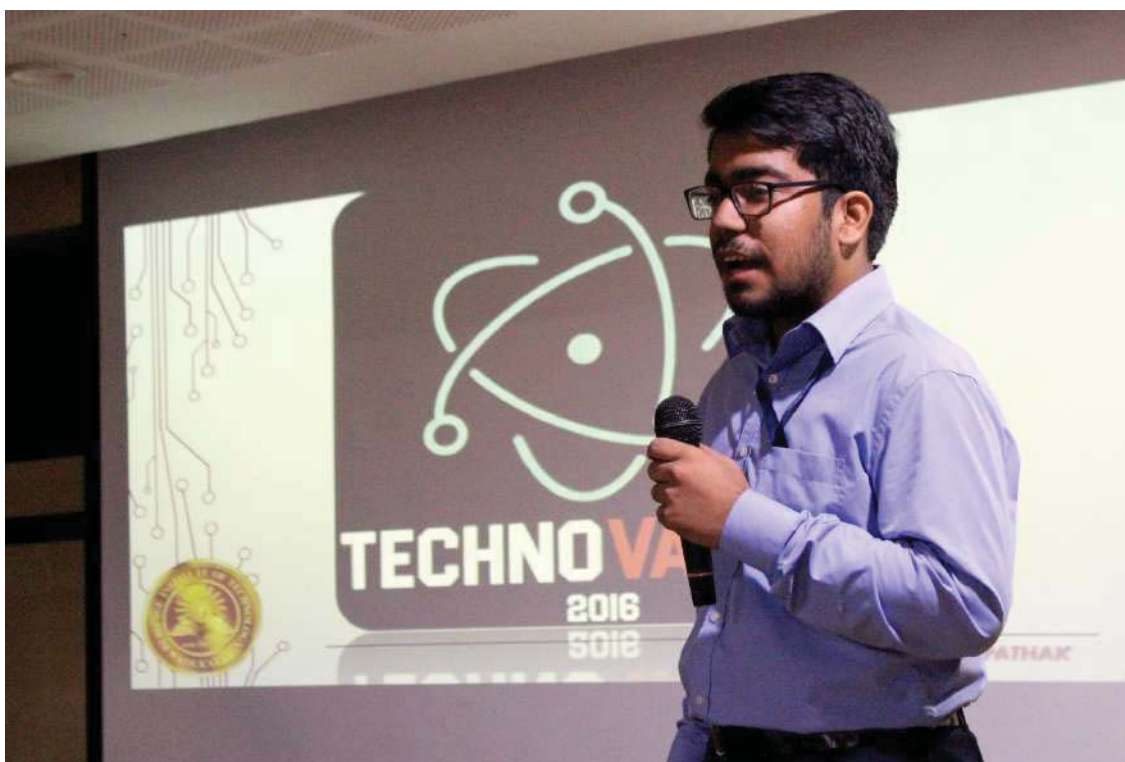
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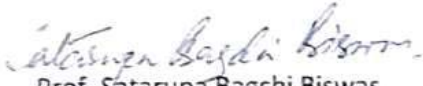
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Department of Information Technology




Prof. Joydev Hazra
Coordinator




Prof. Satarupa Bagchi Biswas
Coordinator



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Android and Web Development Workshop

The department of Information Technology, Heritage Institute of Technology, Kolkata organized a hands-on workshop on Android and Web development on 23rd September 2016. Android and Web Development is highly on demand in industry. The workshop focused on the various trends and languages in the field of Android and Web development. The students came to know about the basics of HTML, CSS, and BOOTSTRAP and how to design a web page dynamically. It was a hands-on event where the participants could learn the technology and immediately could implement them.

This workshop was hosted at ICT B04 and B06. Total number of participants was 68.

Some glimpse of the workshop is attached herewith:





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Coordinator



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Workshop on Internet of Things

The department of Information Technology, Heritage Institute of Technology, Kolkata organized a hands-on workshop on Internet of Things on 24th September 2016. This workshop revealed an overwhelming horizon of technology in form of Internet of Things. Discussion on basic concepts, usages, projected fields of IoT utilization and different case studies are done. Speakers elaborated how IoT is going to change everything. A special demonstration on a simple Smart Home project using Raspberry Pi is done which captured attention of the mass gathered to learn this new technology. In this workshop, how IoT can be used in every aspect of life and civilization, got clearly discussed with the help of case studies and applications.

This workshop was hosted at Seminar Hall – A Building. Total number of participants was 71.

Some glimpse of the workshop is attached herewith:





Heritage Institute of Technology, Kolkata

Department of Information Technology



Joydev Hazra
Prof. Joydev Hazra
Coordinator



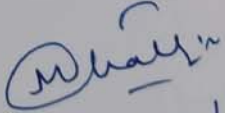
Şatarupa Bagchi Biswas
Prof. Şatarupa Bagchi Biswas
Coordinator

**4th Inter College Competition on
"Prototype Design for Mankind (ICCPDM)"
12th April 2019
Organized by Dept. of AEIE
HERITAGE INSTITUTE OF TECHNOLOGY**

Applied Electronics & Instrumentation Engineering (AEIE) Department of Heritage Institute of Technology organized 4th Inter College Competition on "Prototype Design for Mankind (ICCPDM)" on 12th, April 2019 at Heritage Institute of Technology. The purpose of this competition is to bring together all the AEIE students to present their innovations, ideas for solving various problems of society, share views of experts and to motivate them for entrepreneurship. The inauguration of the event was graced by the honored presence of **Dr. K. Muraleedharan**, Director, CSIR-CGCRI, Kolkata, West Bengal. **Principal, HIT-K, Prof. (Dr.) Pranay Chaudhuri**, presented welcome address of the event. **HOD, AEIE department, HIT-K, Prof. (Dr.) Madhurima Chattopadhyay**, presented a brief activity of the department. **Prof. (Dr.) Arup Kumar Raychaudhuri, Ex-Director and Distinguished Professor, S. N. Bose National Centre for Basic Sciences** and **Dr. Arpan Paul, Chief Scientist and Research Area Head, Embedded Systems and Robotics, TCS Research & Innovation** addressed the participants and tried to motivate them for their future work.

In this year, 48 teams from various below listed Engineering colleges and Universities across West Bengal (Vide Table 1) submitted their project proposals. After a rigorous screening, the technical committee selected 30 projects for the competition. Finally, 26 project groups, consisting of 92 competitors, registered and took part in the competition. Around 140 students of our college eagerly participated in the program.

The participating teams demonstrated their innovative projects in the "Main Auditorium" of our institute. The list of the successful competitors is presented in the Table-2.


15/04/2019
Professor & HOD
Applied Electronics & Instrumentation
Heritage Institute of Technology, Kolkata

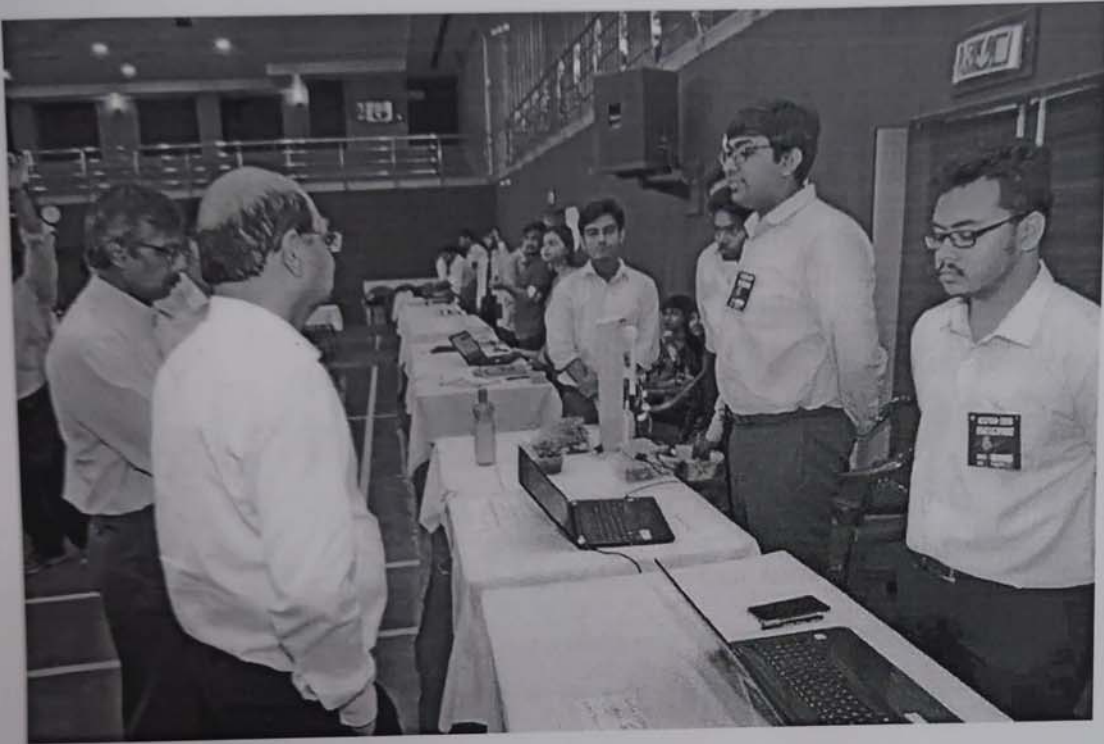


Inauguration of the Project Competition by Dr. K. Muraleedharan, Director, CSIR-CGRI.

The judges' panel (Amitava Akuli, Joint Director, CDAC, **Dr. Arpan Paul**, Chief Scientist and Research Area Head, Embedded Systems and Robotics, TCS Research & Innovation, TCS-Kolkata, **Prof. (Dr.) Sukhendu Samajdar**, Director, Ekta Incubation Center, MAKAUT, West Bengal, evaluated the projects and announced the results. The evaluation process was based on different aspects like its innovativeness, technical merit, completion, quality of presentation, clarity of idea, and usefulness to the society. Finally, the Judges and HOD (AEIE, HITK) presented the trophies and cash prizes to the students with huge cheer. The event was a great success.

The department will continue to organize such competitions in coming years with more participants in a bigger platform.

M. Chatterjee
15/04/2019
Professor & HOD
Applied Electronics & Instrumentation
Heritage Institute of Technology, Kolkata



Project demonstration in Main Auditorium

M. K. Ghosh

15/04/2019

Professor & HOD
Applied Electronics & Instrumentation
Heritage Institute of Technology, Kolkata

Table -1: List of the colleges

Sl. No.	Name of the colleges/Universities
1	HITK
2	Techno International, New Town
3	Narula Institute of Technology
4	Haldia Institute of Technology
5	College of Engineering and Management, Kolaghat
6	Asansol Engineering College
7	Techno India, Salt Lake
8	Calcutta Institute of Engineering and Management
9	Guru Nanak Institute of Technology
10	Academy of Technology
11	Future Institute of Technology

Table 2: List of Winners

Project title	College Name	Name of the competitors
Innovative Portable Insulin Cooler	Asansol Engineering College	Indrojyoti Rano (Champion)
Precision of vision	Haldia Institute of Technology	Mohit Kumar, and Arnab Chowdhuri (1 st Runner up)
Hand gesture Robot using Arduino	Techno International, Newtown	Ankit Vishwakarama, Mumtazul Zidan Hossain, and Pushpal Dey (2 nd Runner Up)


 15/04/2019
 Professor & HOD
 Applied Electronics & Instrumentation
 Heritage Institute of Technology, Kolkata

**3rd Inter College Competition on
"Prototype Design for Mankind (ICCPDM)"
12th April 2018**

Organized by Dept. of AEIE

HERITAGE INSTITUTE OF TECHNOLOGY

Applied Electronics & Instrumentation Engineering (AEIE) Department of Heritage Institute of Technology organized 3rd Inter College Competition on "Prototype Design for Mankind (ICCPDM)" on 12th, April 2018, at Heritage Institute of Technology. The purpose of this event is to bring together all the AEIE students to present their new innovations, ideas for solving various problems of society, share views of experts and to motivate them for entrepreneurship. The inauguration of the event was graced by the honored presence of Prof. (Dr.) Saikat Maitra, Vice Chancellor, MAKAUT, West Bengal. HOD, Prof. (Dr.) Madhurima Chattopadhyay, presented departmental R&D activities along with achievements in her welcome address. Prof. B. B. Paira, Advisor, Higher Education, KBT and Shri Probir Roy, Director, KBT, addressed the participants and motivated them to startup their own business and they assured KBT will extend their helping hand to the students of HITK in such cases. Both participants and audience were highly benefitted and enriched their knowledge by the inspiring talk of honorable Vice Chancellor.



Inauguration of Seminar and Project Competition by Lighting of the Lamp and address by honorable VC

In this year, we got around sixty projects across all over West Bengal from a number of engineering colleges and universities. After a rigorous screening, the technical committee and experts of the subjects selected fifty projects for the competition. Finally, thirty seven project groups consist of 120 competitors registered and took part in the competition. Around 110 students of our college participated in the program. This year, for the first time, we arranged

M. Chattopadhyay
16/04/2018
Professor & HOD
Applied Electronics & Instrumentation
Heritage Institute of Technology, Kolkata

demonstration of all the projects in the "Executive Hall", in Central Block of our institute. Honorable VC interacted with all the project groups and provided his valuable suggestions to the students to improve their work further. Durodarshan and other media people covered the event.

The judges' panel (Dr. Amitava Majumder, Head Quality & R&D Modules, Vikram Solar, Mr. Shibasis Dutt, CEO, Ultratech, Dr. Tanushyam Chattopadhyay, Innovation Lab, TCS-Kolkata, Prof. (Dr.) R. Bhar, Instrumentation Science, Jadavpur University, Mr. Sarbajit Das, CEO, Sundew Solutions, Mr. Anupam Baid, CEO, Baid Power Solutions Pvt. Ltd.) evaluated the projects and announced the result by considering the different aspects like its innovativeness, technical merit, completion, quality of presentation and clarity of idea and usefulness to the society, etc. Finally, the Judges and HOD (AEIE, HITK) presented the trophies and cash prizes to the students with huge cheer. The event was a great success. The department will organize such competition in coming years with more participants in a bigger platform.



Project demonstration in Executive Hall

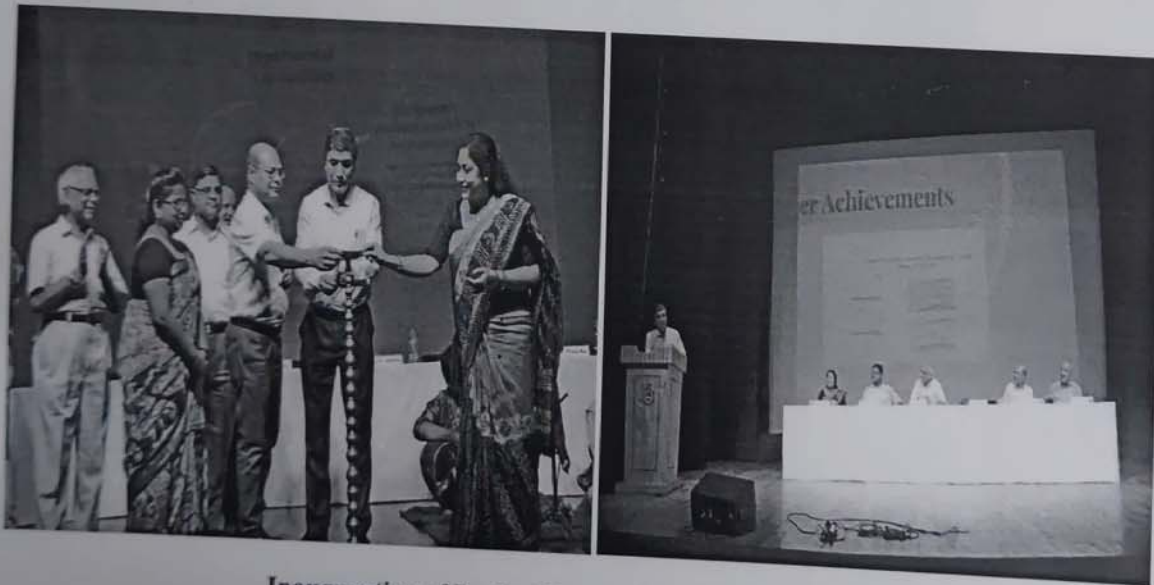
M. B. Dutt
14/04/2018
Professor & HOD
Applied Electronics & Instrumentation
Heritage Institute of Technology, Kolkata

Report on
2nd Inter College Competition on
"Prototype Design for Mankind" on 28th April

Organized by
Department of Applied Electronics & Instrumentation Engineering
Heritage Institute of Technology, Anandapur, Kolkata-107

APPLIED ELECTRONICS & INSTRUMENTATION ENGINEERING (AEIE) DEPARTMENT of Heritage Institute of Technology organized an event titled as "2nd Prototype Design Competition for Mankind" on 28th April, 2017 in association with ISA student chapter of HITK. The objective of this program was to bring together all the AEIE students to demonstrate their ideas and abilities to develop various prototypes related to the field of Instrumentation Technology that will be helpful for the society.

The inauguration of the event was graced by the honored presence of Prof. Saikat Maitra, VC, MAKAUT, West Bengal.



Inauguration of Project Competition by Lighting of the Lamp

Students came across all over West Bengal from a number of engineering colleges and universities to take part in the competition. Both participants and audience were highly benefitted and enriched their knowledge by the speech of Prof. Saikat Maitra.

Whelli
02/05/2017
Professor & HOD
Applied Electronics & Instrumentation
Heritage Institute of Technology, Kolkata

The second half of the event started with **Prototype Design Competition**. After a rigorous screening, the technical committee and experts of the subjects selected twenty (29) projects for the competition. The judges' panel (Prof. B. Ghosh, Prof. of Energy Science & Technology, Jadavpur University; Prof. R. Bhar, Prof. of Instrumentation Science, Jadavpur University; Mr. A. K. Paul, GM, R&D, IISCO) evaluated the projects and announced the result by considering the different aspects like its innovation, application to Mankind, etc. Finally, Invited distinguished guests and HOD (AEIE, HITK) presented the trophies and cash prizes to the students with huge cheer. The event was a great success. The department will organize such competition in coming years with more participants in a bigger platform.



Prize distribution ceremony

Samiul Alam and Soumik Das
(Conveners)
AEIE Department
Heritage Institute of Technology, Kolkata

Soumik
02/05/17
Professor & HOD
Applied Electronics & Instrumentation
Heritage Institute of Technology, Kolkata

SCOPE

- IoT based Instrumentation & Embedded Systems
- Design of sensory systems for industry and household application
- Innovative low cost healthcare devices
- Smart pollution monitoring devices
- Intelligent security systems
- Quality monitoring devices for food & agro products
- Cost-effective automation
- Application of AI and ML in Instrumentation

SUBMISSION GUIDELINES

The students should submit a brief project proposal of 2 pages in Times New Roman font, size 12, mentioning title, objective, schematic block diagram/photograph of the project, results & conclusion in PDF format. The project proposal should reach us within 22nd March, 2019, through email: csw.aeiehitk@gmail.com. A maximum of four registered students can form a project group. Each project group has to deliver a PPT of 5 minutes and demonstrate their project in front of judges on the day of the event.

IMPORTANT DATES

- ☞ Last date of project proposal submission: **22.03.2019**
- ☞ Intimation of acceptance: **02.04.2019**
- ☞ Registration: **Last Date 09.04.2019**
- ☞ Date of project competition: **12.04.2019**

REGISTRATION FEES

- Project competition (each participant): 250/-
- Event participation: 200/-

MODE OF PAYMENT

- Cash/Cheque (email us for enquiry and details)

AWARDS & CERTIFICATES

Winner- Rs 4000/-

1st Runners Up- Rs 3000/-

2nd Runners Up Rs 2000/-

ABOUT

HERITAGE INSTITUTE OF TECHNOLOGY(HIT-K)

HIT-K was set up with a view to creating a Centre of Excellence in technical education in Eastern India. The institute has been declared as an autonomous institution by UGC, w.e.f. academic year 2014-15, affiliated to MAKAUT, West Bengal. The institute is also accredited by NAAC.

APPLIED ELECTRONICS & INSTRUMENTATION ENGINEERING

The department is having B.Tech and M.Tech programs with highly qualified, experienced faculty, dedicated staff members and state-of-the art laboratory facilities. Both B.Tech and M.Tech programs are presently accredited by NBA (National Board of Accreditation). The department has glorious history of R&D activities like SERB funded DST project (ongoing), BIRAC-SRISTI funded project (ongoing), RPS and MODROBS from AICTE, etc. The department has received ISSS Best PG Thesis Award in 2015, achieved prestigious Gandhian Young Technological Innovation Awards (GYTI) 2016, awarded at Rashtrapati Bhavan, appreciation award at B-plan Competition by NASSCOM eSUMMIT-2016, and two of our M.Tech students were also the recipients of BIRAC-SRISTI Appreciation award in the year 2017, etc.

OBJECTIVE

Department of Applied Electronics & Instrumentation Engineering, Heritage Institute of Technology, Kolkata is going to organise 4th Inter College Competition on "**Prototype Design for Mankind**" on 12th April 2019, in Heritage Institute of Technology campus. The objective of this program is to bring together all the students of Instrumentation and related streams to demonstrate their ideas and abilities to develop various prototypes related to the field of Instrumentation and related technologies that will be helpful for the society.

ELIGIBILITY OF PARTICIPATION

Students pursuing Instrumentation Engineering/Science or relevant engineering disciplines can participate in this program.



4th Inter-College Competition on "Prototype Design for Mankind"

Organised by

Applied Electronics and
Instrumentation Engineering
Dept., Heritage Institute of
Technology, Kolkata.



12th April- 2019

CHIEF PATRON

Mr. Prahlad Rai Agarwala, Chairman, BOG, HIT-K

PATRON

Prof. (Dr.) Pranay Chaudhuri, Principal, HIT-K

Mr. P. K. Agarwal, CEO, KBT

ADVISORY COMMITTEE

Prof. (Dr.) Madhurima Chattopadhyay, HOD, AEIE, HITK

Dr. K. Muraleedharan, Director, CSIR-CGCRI

Prof. (Dr.) Arup Kumar Raychaudhuri, Ex-Director and Distinguished Professor, S. N. Bose National Centre for Basic Sciences

Prof. B. B. Paira, Advisor, MAKAUT

Dr. Nabarun Bhattacharya, Director, CDAC, Kolkata

Dr. Krishnendu Chakraborty, Principal, GCECT, Kolkata

Dr. Jaspreet Singh, Head MEMS Fabrication, SCL-ISRO

Dr. Arpan Paul, Chief Scientist and Research Area Head, Embedded Systems and Robotics, TCS Research & Innovation

Mr. Utpal Saha, Executive Director, Phillips Carbon Black Ltd.

Dr. Amitava Majumdar, Vice-President, Quality, R&D Head, Vikram Solar Ltd.

Prof. (Dr.) R. Bhar, Ex-HOD, Instrumentation Science, JU

Mr. G. K. Sinha, Deputy Chief Engineering Services, Paharpur Cooling Towers Ltd.

Mr. Abhijit Sengupta, VP works, Skipper Ltd.

Mr. Himanish Das, VP R&D, Emami Agrotech R&D

Mr. Rakesh Nayak, Senior Manager-Projects, PCBL

Mr. P. Halder, Director, Wissen Zentrum Technology

Mr. Suddhasatya Roy, Engg. Officer, IOCL, Kolkata

CONVENERS

Dr. Surajit Bagchi, AEIE, HIT-K (Mobile: 9831408175)

Dr. Pradip Saha, AEIE, HIT-K (Mobile: 7584921727)



ORGANIZING COMMITTEE

Prof. (Dr.) Saibal Pradhan, HOD, CEM, Kolaghat

Prof. Arijit Ghosh, HOD, AEIE, RCCIIT

Prof. (Dr.) Shamik Marick, FIEM, Kolkata

Prof. Subhajit Bhowmik, TI, Salt Lake

Prof. Bikash Mandal, AEC



CONTACT DETAILS

Email: csw.aeiehitk@gmail.com

Mobile: 9831408175/ 7584921727/ 9474644186



TECHNICAL COMMITTEE


Prof. (Dr.) Santanu Ghorai, AEIE, HIT-K


Prof. (Dr.) Arabinda Kumar Pal, AEIE, HIT-K


Prof. (Dr.) Soumik Das, AEIE, HIT-K


Prof. (Dr.) Anil Kumar Bag, AEIE, HIT-K

Reach Us Via

 csw.aeiehitk@gmail.com

 <https://www.facebook.com/4th-Inter-College-College-Competition-on-Prototype-design-for-Mankind-2256775917894530/>

 <https://goo.gl/maps/dqZVb14sJYL2>

 <https://www.iccpdm.online>



Department of Applied Electronics
& Instrumentation Engineering

Heritage Institute of Technology

Chowbaga Road, Anandapur, Kolkata-700107

3rd Inter College Competition ON "Prototype Design for Mankind"

12 TH APRIL, 2018

Eligibility of Participation

Undergraduate engineering student of Instrumentation Engineering/Science or relevant engineering discipline can participate in this program.

Scope

- || IOT based Instrumentation & Embedded Systems
- || Design of sensory systems for industry and household application
- || Innovative healthcare devices
- || Smart pollution monitoring devices
- || Intelligent security systems
- || Quality monitoring devices for food & agro products
- || Cost-effective automation

Submission Guideline

The students should submit a brief project proposal within 2 pages in Times New Roman font, size 12, mentioning title, objective, schematic block diagram/photograph of the project, results & conclusion in PDF format. The project proposal should reach us within 22nd March, 2018, through email: csw.aeiehitk@gmail.com. Maximum four students can form a project group but each student should register separately. Each project group has to deliver a PPT of 10 minutes and demonstrate their project in front of judges on the day of the event.

Email: csw.aeiehitk@gmail.com



Important Dates

- Last date of project proposal submission : 22.03.2018
- Intimation of acceptance : 02.04.2018
- Registration : 04.04.2018 to 09.04.2018
- Date of project competition : 12.04.2018

Registration Fees

- Project competition [each participant] : 200/-
- Event participation : 150/-

**Mode of payment :
Cash**

Award / Certificate

Cash prize and memento for winners.
Certificates for all participants.

Contacts

**Prof. (Dr.) Soumik Das, AEIE,
HIT-K (Mobile : 9830282148)**

**Prof. Samiul Alam, AEIE,
HIT-K (Mobile : 9230018143)**



2nd Inter College Competition on "Prototype Design for Mankind" (April 28, 2017)

Organized by

Department of Applied Electronics & Instrumentation Engineering
Heritage Institute of Technology, Chowbaga Road, Anandapur, Kolkata -700107



Objective

Department of Applied Electronics & Instrumentation Engineering, Heritage Institute of Technology, Kolkata is going to organize 2nd Inter College Competition on "Prototype Design for Mankind" on 28th April 2017, in HITK college campus. The objective of this program is to bring together all the AEIE students to demonstrate their ideas and abilities to develop various prototypes related to the field of Instrumentation Technology that will be helpful for the society.

About Heritage Institute of Technology

HIT-K was set up with a view to creating a Centre of Excellence in technical education in Eastern India. All its eligible B. Tech. programmes has been granted **autonomous status by UGC** w. e. f. academic year 2014-15 and **accredited by NAAC** for a period of five years with effect from 22.2.2017.

About AEIE Department

The department is having B.Tech and M.Tech program with highly qualified, experienced faculty, dedicated staff members and state-of-the-art laboratory facilities. The department has glorious history of R&D activities like SERB funded DST project (ongoing), SRIST & BIRAC funded project (ongoing), RPS and MODROB from AICTE, etc. The department has received national recognition by achieving prestigious Gandhian Young Technological Innovation Awards (GYTI) 2016 award at Rashtrapati Bhavan, ISSS Best PG Thesis Award 2015 and B-plan Competition at NASSCOM eSUMMIT-2016, etc.

Chief Patron

Mr. Prahlad Rai Agarwala, Chairman, BOG, HIT-K

Patron

Prof. (Dr.) Pranay Chaudhuri, Principal, HIT-K
Prof. B. B. Paira, Advisor, Higher Education, KBT
Mr. P. K. Agarwal, CEO, KBT
Mr. Probir Roy, Director, KBT

Advisory Committee

Prof. (Dr.) M. Chattopadhyay, H.O.D, AEIE, HIT-K
Prof. (Dr.) B. Ghosh, Dept. of Energy Science, J.U
Prof. (Dr.) R. Bhar, Instrumentation Science, J.U
Prof. (Dr.) S. Chatterjee, Principal, CIT
Prof. (Dr.) M. Mukherjee, ADean, Sc.&Engg, Adamas Univ.
Prof. (Dr.) M. Sahoo, H.O.D, AEIE, HIT, Haldia
Prof. I. Pandey, HOD, AEIE, TICT
Prof. A.K. Ray, HOD, AEIE, BCET
Mr. A. K. Paul, Ex.GM, R & D, SAIL-ISP, Burnpur
Mr. A. Tarafdar, DGM (M&C), IOCL, Haldia
Mr. P. Hakder, Director, Real Time Eng. Pvt. Ltd

Convener

Prof. Samiul Alam, AEIE, HIT-K
Prof. (Dr.) Soumik Das, AEIE, HIT-K

Technical Committee

Prof. S. Bagchi, AEIE, HIT-K
Prof. A. K. Pal, AEIE, HIT-K
Prof. (Dr.) S. Ghorai, AEIE, HIT-K
Prof. (Dr.) A. K. Bag, AEIE, HIT-K
Prof. H. Mandal, HOD, AEIE, AOT
Prof. S. Kuila, HOD, AEIE, GNIT

Organizing Committee

Prof. I. Naskar, AEIE, HIT-K
Prof. P. Saha, AEIE, HIT-K
Prof. R. Sengupta, AEIE, HIT-K
Prof. D. Ghosh, AEIE, HIT-K
Prof. A. Sarkar, AEIE, HIT-K
Prof. S. Chakraborty, AEIE, HIT-K
Prof. D. Chowdhury, AEIE, HIT-K
Prof. S. Bhowmick, AEIE, TISL
Prof. B. Mandal, AEIE, AEC

Contacts

Email: csw.aeiehitk@gmail.com
Mobile: 9230018143/9830282148

Award/Certificate

- ❖ Cash prize and memento for winners.
- ❖ Certificates for all participants.

Eligibility of Participation

Undergraduate engineering student of Instrumentation Engineering/Science or relevant engineering discipline can participate in this program.

Submission Guideline

The students should submit a brief project proposal within 2 pages in Times New Roman font, size 12, mentioning title, objective, schematic block diagram/photograph of the project, results & conclusion in PDF format. The project proposal should reach us within 7th April, 2017, through email: csw.aeiehitk@gmail.com. Maximum four students can form a project group but each student should register if it is selected for competition. Selected participants have to deliver a PPT of 10 minutes and demonstrate their project in front of judges on the day of the event.

Scope

- ❖ IOT based Instrumentation & Embedded Systems
- ❖ Design of sensory systems for industry and household application
- ❖ Innovative healthcare devices
- ❖ Smart pollution monitoring devices
- ❖ Intelligent security systems
- ❖ Quality monitoring devices for food & agro products
- ❖ Cost-effective automation

Important Dates

- ❖ Last date of project proposal submission: **07.04.2017**
- ❖ Intimation of acceptance: **17.04.2017**
- ❖ Registration: **18.04.2017 to 25.04.2017**
- ❖ Date of project competition: **28.04.2017**

Registration Fees

- ❖ Project competition (individual): 200/-
- ❖ Participation: 150/-
- ❖ Participation (ISA Member): 100

Mode of payment

Cash

Registration form: Available at- <https://docs.google.com/a/heritageit.edu/forms/d/e/1FAIpQLScRiu4cQ-3pe11U04DYUi-UgBpZj2yciUlgCnlYaszn3oza8g/viewform?c=0&w=1>

Seminar on "Advancements in Instrumentation Technology and Prototype Design Competition for Mankind"

Statement of Registration Fee Collection: Students-Attended

Sl. No.	Name	Affiliation	Signature
01	Avik Mukhopadhyay	3 rd Year, HITK	
02	Arunabha Sarkar	3 rd Year, HITK	Arunabha Sarkar
03	Avishek Roy Chowdhury	3 rd Year, HITK	Avishek Roy Chowdhury
04	Anupriyo Mitra	3 rd Year, HITK	
05	Arusharka Biswas	3 rd Year, HITK	Arusharka Biswas
06	Akshay Kumar Ram	3 rd Year, HITK	Akshay Kumar Ram
07	Anik Roy	3 rd Year, HITK	Anik Roy
08	Abhishek Choudhary	3 rd Year, HITK	Abhishek Choudhary
09	Anurag Singh	3 rd Year, HITK	Anurag Singh
10	Alipriya Tripathy	3 rd Year, HITK	Alipriya Tripathy
11	Abhishek Tripathi	3 rd Year, HITK	Abhishek Tripathi
12	Arindam Das	3 rd Year, HITK	Arindam Das
13	Abhishek Gaurav	3 rd Year, HITK	Abhishek Gaurav
14	Akanksha Priyadarshni	3 rd Year, HITK	Akanksha Priyadarshni
15	Debdatta Chakraborty	3 rd Year, HITK	Debdatta Chakraborty

(Signature)

12/04/2019

Professor & HOD
Applied Electronics & Instrumentation
Jyoti Institute of Technology, Kolkata

Seminar on "Advancements in Instrumentation Technology and Prototype Design Competition for Mankind"

Statement of Registration Fee Collection: Students-Attended

Sl. No.	Name	Affiliation	Signature
16	Kumar Gaurav	3 rd Year, HITK	Kumar Gaurav
17	Manoswita Biswas	3 rd Year, HITK	Manoswita Biswas
18	Megha Dasgupta	3 rd Year, HITK	Megha Dasgupta
19	Meghadri Roy	3 rd Year, HITK	Meghadri Roy
20	Monu Samrat	3 rd Year, HITK	Monu Samrat
21	Pratyush Anand	3 rd Year, HITK	Pratyush Anand
22	Pritam Chakraborty	3 rd Year, HITK	Pritam Chakraborty
23	Pritam Kundu	3 rd Year, HITK	Pritam Kundu
24	Priyanka Sah	3 rd Year, HITK	Priyanka Sah
25	Rahul Chakraborty	3 rd Year, HITK	
26	Rijumon Dey	3 rd Year, HITK	Rijumon Dey
27	Saptarshi Mitra	3 rd Year, HITK	Saptarshi Mitra

(Signature)
12/04/19

Professor & HOD
Department of Instrumentation
Jadavpur University, Kolkata

Seminar on "Advancements in Instrumentation Technology and Prototype Design Competition for Mankind"

Statement of Registration Fee Collection: Students-Attended

Sl. No.	Name	Affiliation	Signature
28	Shreya Das	3 rd Year, HITK	Shreya Das
29	Shromona Kumar	3 rd Year, HITK	
30	Soham Chatterjee	3 rd Year, HITK	Soham Chatterjee
31	Soham Das	3 rd Year, HITK	Soham Das
32	Soumit Paul	3 rd Year, HITK	
33	Sourajit Mukherjee	3 rd Year, HITK	Sourajit Mukherjee
34	Souvik Ghosh	3 rd Year, HITK	Souvik Ghosh.
35	Subham Kumar Goyal	3 rd Year, HITK	Subham Goyal
36	Sudipto Mandal	3 rd Year, HITK	Sudipto Mandal.
37	Supriyo Sadhya	3 rd Year, HITK	Supriyo Sadhya
38	Yalini Chaturvedi	3 rd Year, HITK	Yalini Chaturvedi
39	Yash Jain	3 rd Year, HITK	

(Signature)
12/04/19

Professor & HOD
Applied Electronics & Instrumentation
Heritage Institute of Technology, Kolkata

Seminar on "Advancements in Instrumentation Technology and Prototype Design Competition for Mankind"

Statement of Registration Fee Collection: Students-Attended

Sl. No.	Name	Affiliation	Signature
40	Ajoy Sengupta	2 nd Year, HITK	Ajoy Sengupta
41	Anirban Datta	2 nd Year, HITK	Anirban Datta
42	Arghya Majumdar	2 nd Year, HITK	Arghya Majumdar
43	Dwiteeya Chaudhury	2 nd Year, HITK	Dwiteeya Chaudhury
44	Shaunak Sarkar	2 nd Year, HITK	Shaunak Sarkar
45	Tanay Ghose	2 nd Year, HITK	Tanay Ghose

Seminar on "Advancements in Instrumentation Technology and Prototype Design Competition for Mankind"

Statement of Registration Fee Collection: Students-Attended

Sl. No.	Name	Affiliation	Signature
01	Anindita Giri	M. Tech, HITK	Anindita Giri
02	Aratrika Barat	M. Tech, HITK	Aratrika Barat
03	Arijit Majumder	M. Tech, HITK	Arijit Majumder
04	Avinash Kumar Avichal	M. Tech, HITK	
05	Bishwarup Dutta	M. Tech, HITK	
06	Dipam Basu	M. Tech, HITK	
07	Ireen Parveen	M. Tech, HITK	Ireen Parveen
08	Sanjana Ghosh	M. Tech, HITK	
09	Sarmistha Ray	M. Tech, HITK	
10	Sayantana Pal	M. Tech, HITK	Sayantana Pal
11	Sneha Chakraborty	M. Tech, HITK	Sneha Chakraborty
12	Sourjeyo Goswami	M. Tech, HITK	Sourjeyo Goswami
13	Sraboni Ghosh	M. Tech, HITK	Sraboni Ghosh
14	Sriparna Sahu	M. Tech, HITK	Sriparna Sahu
15	Subhendu Roy	M. Tech, HITK	
16	Surya Mitra	M. Tech, HITK	
17	Tulika Ojha	AEIE, HITK	Tulika Ojha

Wher
- 12/04/19

Professor & HOD
Applied Electronics & Instrumentation
Heritage Institute of Technology, Kolkata

Seminar on "Advancements in Instrumentation Technology and Prototype Design Competition for Mankind"

Statement of Registration: ISA Member (Attended)

Sl. No.	Name	Affiliation	Signature
01	Shri Abhinanda Dutta	4 th Year, HITK	Abhinanda Dutta
02	Shri Amitangshu Mukherjee	4 th Year, HITK	Amitangshu Mukherjee
03	Shri Ashish Kumar Saraf	4 th Year, HITK	
04	Shri Ayan Guchhait	4 th Year, HITK	
05	Shri Chitrabhanu Gupta	4 th Year, HITK	Chitrabhanu Gupta
06	Ms. Darothi Jas	4 th Year, HITK	
07	Shri Drikjit Aich	4 th Year, HITK	
08	Shri Govind Biyani	4 th Year, HITK	Govind Biyani

Signature
12/04/19

Professor & HOD
Applied Electronics & Instrumentation
Jitendra Institute of Technology, Kolkata

Seminar on "Advancements in Instrumentation Technology and Prototype Design Competition for Mankind"

Statement of Registration: ISA Member (Attended)

Sl. No.	Name	Affiliation	Signature
09	Shri Raj Kumar Seth	4 th Year, HITK	
10	Shri Ronojoy Kumar	4 th Year, HITK	
11	Ms. Shrabanti Ganguly	4 th Year, HITK	
12	Ms. Sreejita Saha	4 th Year, HITK	<i>Sreejita Saha</i>
13	Shri Souvik Samanta	4 th Year, HITK	

Seminar on "Advancements in Instrumentation Technology and Prototype Design Competition for Mankind"

Statement of Registration: Non-ISA Member (Attended)

Sl. No.	Name	Affiliation	Signature
01	Shri Akash Pandit	4 th Year, HITK	
02	Shri Anuj Kumar Khetan	4 th Year, HITK	
03	Shri Arindam Bhattacharya	4 th Year, HITK	
04	Shri Mayank Jha	4 th Year, HITK	
05	Shri Mukesh Kumar Agarwal	4 th Year, HITK	
06	Shri Preetam Das	4 th Year, HITK	<i>Preetam Das</i>

M. Das
12/04/18

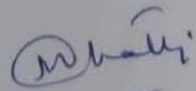
Professor & HOD
Applied Electronics & Instrumentation
Heritage Institute of Technology, Kolkata

07	Shri Saikat Dutta	4 th Year, HITK	
08	Shri Sanjoy Bhowmick	4 th Year, HITK	
09	Shri Shahnawaz Khan	4 th Year, HITK	Shahnawaz Khan

Seminar on "Advancements in Instrumentation Technology and Prototype Design Competition for Mankind"

Statement of Registration

Sl. No.	Name	Affiliation	Signature
01	Sukhendu Roy	2 nd year , M.Tech	Sukhendu R.
02	Tulika Das	2 nd year , B.Tech	Tulika Das .
03	Riddhi Acharya	2 nd year , B.Tech	Riddhi Acharya .
04	Somkalpa Laha	2 nd year , B.Tech	Somkalpa Laha
05	Gargi Dutta	2 nd year , B.Tech	Gargi Dutta
06	Tanmoy Kolay	2 nd year , B.Tech	Tanmoy Kolay
07	Tuhin Datta Choudhury	3 rd year, B.Tech.	Tuhin Datta Choudhury
08	Ronak Tanna	3 rd year, B.Tech	Ronak Tanna
09	Aniruddha Banerjee	3 rd year, B.Tech	


 12/04/19

CERTIFICATE OF PARTICIPATION

<u>SlNo</u>	<u>Name</u>	<u>Affiliation</u>	<u>Signature</u>
1.	ANKITA GHOSH	BTECH 4 th YR	Ankita Ghosh
2.	ADWITYA DUTTA CHOWDHURY	BTECH 4 th Yr	Adwitya
3.	SOUMIK HOSE	BTECH 4 th Yr	Soumik Hose
4.	Lipityasit Paul	B.TECH 4 th year	LP
5.	Jpsita Paul	B.Tech 4 th year	Jpsita Paul.
6.	MEHULI DUTTA	B.TECH 4 th YEAR	Mehuli Dutta.

Mehuli
12/04/19

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Heritage Institute of Technology, Kolkata

List of Project Competitors

3rd Inter

College Competition on "Prototype Design for Mankind" (ICCPDM)
on 12th April 2018

Organized by Department of Applied Electronics & Instrumentation Engineering
Heritage Institute of Technology, Anandapur, Kolkata-107

Sl. No	College Name	Student Name	Project Title	Signature
1	TECHNO INDIA COLLEGE OF TECHNOLOGY, Rajarhat	PRIYOJIT CHAKRABORTY	MIMICKING ROBOTIC ARM	
		ARPITA LAHA		
		RITWIK SAHA		
		JAKIR MALLICK		
2		Abhinandan Kahali	CNC PLOTTING MACHINE	Abhinandan Kahali
		Dipanjan Dey		Dipanjan Dey
		Trisha Pal		Trisha Pal
		Chandrama Maulik		Chandrama Maulik
3		MASIUR ALAM	SPEECH RECOGNITION SYSTEM FOR VOICE	Masiur Alam
		AMINA KHATUN		Amira Khatun
4		Abhishek Saha	IoT based speech recognition	Abhishek Saha
		Kuntal Kishore Ball		Kuntal Ball
		Pravakar Adhikary		Pravakar Adhikary
		Rajarshi Sarkar		Rajarshi Sarkar
5		Souvik Ghosh	Ultrasonic Blind Walking stick	Souvik Ghosh
		Pratyusha Basu Roy Choudhury		Pratyusha Basu Roy Choudhury
	Dhrubajyoti Sinharay	Dhrubajyoti Sinharay		
6	Arnab Bhaumik	Arduino based air quality monitoring system	Arnab Bhaumik	
	Rounak Das		Rounak Das	
	Shreya Datta		Shreya Datta	
	Pushpendu Chakraborty		Pushpendu Chakraborty	

SOURISH BHATTACHARYA

Somnath Sahu → 200/-
Malashree Koley → 200/-

(Signature)
12/04/18

Professor & HOD
Applied Electronics & Instrumentation
Heritage Institute of Technology, Kolkata

⊕ SOMNATH SAHU
⊕ MALASHREE KOLEY

Sl. No	Year	Student Name	Project Title	Signature
7	AEIE/ 3rd	Antara Ghosh	TOLL TAX AUTOMATION SYSTEM	Antara Ghosh
		Anusua Guchait		Anusua Guchait
		Neha Surbhi		Neha Surbhi
		Shubham Kumar Gupta		Shubham
		Tanya Barnwal		Tanya Barnwal
8	AEIE/ 4th	Soumyadip Nandi	Machine learning based waste segregation platform through IoT connected sensors	Soumyadip Nandi
		Tanmoy Kolay		Tanmoy Kolay
		Yash Agarwal		Yash Agarwal
		Rupayan Paul		Rupayan Paul
9	AEIE/ 3rd	ABHIRUP SAHA	Interactive Surface using Piezoelectric Sensor	Abhirup Saha
		SATYAKI SINHA RAY		Satyaki Sinha Ray
		ANISH SAHA		Anish Saha
10	AEIE/ 4th	Ajoy Sengupta	Measurement of Blood Glucose Concentration from Tea Glucose Concentration of a Type-2 Diabetic Patient using an IoT Based System	Ajoy Sengupta
		Saikat Das		Saikat Das
11	AEIE/ 4th	Aindrilla Basak	Wireless control of conveyor belt from a remote location	_____
		Aishwarya Dey		_____
		Priyanka Naskar		_____
		Upasana Dhar		_____
		Sanhita Sen		_____
12	AEIE/ 4th	Dwiteeya Chaudhury	IoT Based Household Compost Management System for Smart City	Dwiteeya Chaudhury
		Tanay Ghose		Tanay Ghose
		Shreya Sett		Shreya Sett

1st

Subhansu Samanta (AEIE)

M. Saha
16/04/18

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Heritage Institute of Technology, Kolkata

List of Project Competitors

3rd Inter

College Competition on "Prototype Design for Mankind" (ICCPDM)

on 12th April 2018

Organized by Department of Applied Electronics & Instrumentation Engineering

Heritage Institute of Technology, Anandapur, Kolkata-107

Sl. No	College Name	Student Name	Project Title	Signature
13	Heritage Institute of Technology	Shahla Khurshid	Fall Detection System for elderly people	Shahla
		Lakshi Agarwal		Lakshi Agarwal
		Shimona Francis		Shimona Francis
		Jaynee Rawal		Jaynee Rawal
14	HITK	Riya Singh	Never falling Robot	Riya Singh
		Rinkesh Kumar		Rinkesh Kumar
		Shru Ruparelia		Shru Ruparelia
		Abhishek Kumar		Abhishek Kumar
15	Heritage Institute of Technology	RAHUL BHAKAT	Design and development of automatic monitoring and control of Hazardous Gas	Rahul Bhakat
		Sarab Chandra Maity		Sarab Chandra Maity
		Kalyan Maity		Kalyan Maity

200/200
 Receipt
 200/200

M. Maity

12/04/18

HERITAGE INSTITUTE OF TECHNOLOGY

Student Registration

3rd Inter College Competition on "Prototype Design for Mankind" on 12th April'18

Organized by Department of Applied Electronics & Instrumentation Engineering

B.Tech- 1st Year, 2nd Semester

Sl. No	Name	Class Roll	Signature
1	Mr. Soham Chaudhuri	1753014	Soham Chaudhuri
2	Mr. Anirban Dhar	1753016	Anirban Dhar
3	Ms. Madhuri Saha	1753020	Madhuri Saha
4	Mr. Soumodip Sasmal	1753021	Soumodip Sasmal
5	Mr. Shubhramil Kundu	1753026	Shubhramil Kundu
6	Ms. Shikha Kumari Verma	1753029	Shikha K. Verma
7	Mr. Shantanu Kumar	1753030	Shantanu Kumar
8	Mr. Subham Das	1753032	Subham Das
9	Mr. Rajdeep Bhattacharjee	1753037	Rajdeep Bhattacharjee
10	Mr. Rikth Chakraborty	1753015	Rikth Chakraborty
11	Mr. Animesh Gupta	1753066	Animesh Gupta
12	Mr. Riddhik Bhunia	1753052	Riddhik
13	Mr. Swarnadweep Bose	1753067	Swarnadweep Bose

(Signature)
12/04/18

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Heritage Institute of Technology

HERITAGE INSTITUTE OF TECHNOLOGY

Student Registration

3rd Inter College Competition on "Prototype Design for Mankind" on 12th April'18

Organized by Department of Applied Electronics & Instrumentation Engineering

B.Tech- 2nd Year, 4th Semester

Sl. No	Name	Class Roll	Signature
1	SUMAN KORA	1653001	Suman Kora
2	SUMAN KARMAKAR	1653002	
3	ARNAB DAS	1653007	Arnab Das
4	DEBOJYOTI SINHA ROY	1653009	Debojyoti Sinha Roy
5	SAYAN MUKHERJEE	1653011	Sayan Mukherjee
6	MEGHA SAHA	1653013	Megha Saha
7	ARUNIMA SARKAR	1653014	Arunima Sarkar
8	SABYASACHI TEWARY	1653015	Sabyasachi Tewary
9	AGNIBHA BHATTACHARJEE	1653016	Agneha Bhattacharjee
10	BIBASWAN CHATTERJEE	1653018	Bibaswan Chatterjee
11	ROHAN SEN	1653019	Rohan Sen
12	RIMA GUPTA	1653020	
13	OINDRILA CHAKRAVARTY	1653022	Oindrila Chakravarty
14	SOUNAK DEY ROY	1653023	Sounak Dey Roy
15	RAJ CHAKRABORTY	1653026	Raj Chakraborty
16	SAYAN RAKSHIT	1653027	Sayan Rakshit
17	BHARGAB BOSE	1653029	Bhargab Bose
18	SUNEHA GHOSH DASTIDAR	1653030	Suneha Ghosh Dastidar
19	UTKARSH SINGHANIA	1653036	Utkarsh Singhania
20	ABRITTI CHATTERJEE	1653037	Abritti Chatterjee
21	AANKITA MUKHERJEE	1653042	Aankita Mukherjee
22	ARNAB CHAKRABORTY	1653043	Arnab Chakraborty
23	YASHISH JAISWAL	1653045	Yashish Jaiswal
24	DISHANI SAHA PODDAR	1653051	Dishani Saha Poddar
25	PRACHURJYA DAS	1653052	Prachurjya Das
26	SUVRAMAN SINHA	1653053	Suvraman Sinha
27	SUSHIM MUKUL DUTTA	1653054	Sushim Mukul Dutta
28	AGNIVA GUPTA	1653055	Agniva Gupta
29	KAUSTAV BANERJEE	1653056	Kaustav Banerjee
30	SAMBUDDHA HAZRA	1653057	Sambuddha Hazra
31	RISHAV GHOSH	1653061	Rishav Ghosh
32	TATHAGATA BHATTACHARJEE	1653063	Tathagata Bhattacharjee
33	SRIJANI NANDY	1653066	Srijani Nandy
34	ANIRUDDHA PAUL	1653069	Aniruddha Paul

(Signature)
12/04/18

	Name	Class Roll	Signature
35	MD SAIF OSTAGAR	1653072	MD SAIF Ostagar
36	SHRI MADAN NASKAR	1653076	Madan Naskar
37	MS. DISHA MONDAL	1653077	Disha Mondal
38	MS. MOULINA CHAKRABARTI	1653078	Moulina Chakrabarti
39	SHRI SAYAN DAS	1653080	Saym Das
40	MS. DEBIKA DAS	1653083	Debika Das

41 NIZAYANITIA BANDYOPADHYAY 1653021

Vijayankit Bandyopadhyay

(Signature)
12/04/18

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Heritage Institute of Technology, Kolkata

HERITAGE INSTITUTE OF TECHNOLOGY

Student Registration

3rd Inter College Competition on "Prototype Design for Mankind" on 12th April'18

Organized by Department of Applied Electronics & Instrumentation Engineering

B.Tech- 3rd Year, 6th Semester

Sl. No	Name	Class Roll	Signature
1	Shri Abhishek Kumar	1553005	Abhishek Kumar
2	Shri Souvick Chakraborty	1553009	Souvick Chakraborty
3	Ms. Ishita Ghosh	1553010	Ishita Ghosh
4	Ms. Priyanka De	1553011	Priyanka De
5	Shri Amarnath Jha	1553012	Amarnath Jha
6	Shri Ashish Kumar	1553014	Ashish Kumar
7	Shri Rishin Ray	1553020	Rishin Ray
8	Shri Amit Anand	1553023	Amit Anand
9	Shri Souvik Mukherjee	1553029	Souvik Mukherjee
10	Ms. Debapriya Sarkar	1553030	Debapriya Sarkar
11	Shri Diptesh Saha	1553032	Diptesh Saha
12	Shri Mayank Thakur	1553034	Mayank Thakur
13	Shri Sagnik Ghosh	1553037	Sagnik Ghosh
14	Shri Srikunj Daga	1553040	Srikunj Daga
15	Shri Unnat Singh	1553042	Unnat Singh
16	Shri Ritesh Kumar	1553044	Ritesh Kumar
17	Shri Reeshabh Choudhary	1553050	Reeshabh Choudhary
18	Shri Aviroop Barat	1553051	Aviroop Barat
19	Shri Sayan Goswami	1553053	Sayan Goswami
20	Ms. Sovini Bhattacharyya	1553057	Sovini Bhattacharyya
21	Ms. Sneha Roy	1553059	Sneha Roy
22	Shri Devanshu Shekhar	1553060	Devanshu Shekhar
23	Shri Aditya Mukherjee	1553062	Aditya Mukherjee
24	Shri Satyajit Roy	1553063	Satyajit Roy
25	Ms. Gargi Dastidar	1553064	Gargi Dastidar
26	Shri Anurag Bhattacharjee	1553073	Anurag Bhattacharjee

27# Rev. Kamal Bhattacharya

1553006

Kamal Bhattacharya

28 Arup Paul

1553076

Arup Paul

29 Anghya Sinha

1553077

A. Sinha

30. Asim Mukherjee.

1553075

Asim Mukherjee.

#31# Nausheen Ali

1553002

Nausheen Ali

@Nausheen

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Student Registration

3rd Inter College Competition on "Prototype Design for Mankind" on 12th April'18

Organized by Department of Applied Electronics & Instrumentation Engineering

B.Tech- 4th Year, 8th Semester

Sl. No	Name	Class Roll	Signature
1	Shaunak Sarkar	1453006	Shaunak Sarkar
2	Aindrilla Basak	1453007	Aindrilla Basak
3	Priyanka Naskar	1453009	Priyanka Naskar
4	Anurag Choudhury	1453012	Anurag Choudhury
5	Somkalpa Laha	1453019	Somkalpa Laha
6	Rajdeep Taluckdar	1453038	
7	Sanhita Sen	1453042	Sanhita Sen
8	Upasana Dhar	1453047	Upasana Dhar
9	Aishwarya Dey	1453054	Aishwarya Dey

10 Adarsh Sumecha

1453021

(Signature)

(Signature)
12/04/18

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Instrumentation

Heritage Institute of Technology, Kolkata

HERITAGE INSTITUTE OF TECHNOLOGY

Student Registration

3rd Inter College Competition on "Prototype Design for Mankind" on 12th April'18
Organized by Department of Applied Electronics & Instrumentation Engineering
M.Tech- 1st Year

Sl. No	Name	Class Roll	Signature
1	Anjan Sarkar	1792006	<i>Anjan Sarkar</i>
2	Priyadarshi Sen	1792005	<i>Priyadarshi Sen</i>
3	Somnath Chakraborty	1792004	<i>Somnath Chakraborty</i>
4	Sohini Banik	1792002	<i>Sohini Banik</i>
5	Waqar Ahmed	1792003	<i>Waqar Ahmed</i>

M. Halli
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Kolkata

HERITAGE INSTITUTE OF TECHNOLOGY

Student Registration

3rd Inter College Competition on "Prototype Design for Mankind" on 12th April'18
Organized by Department of Applied Electronics & Instrumentation Engineering
M.Tech- 2nd Year

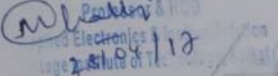
Sl. No	Name	Class Roll	Signature
1	Souvik Mallik	1692003	Souvik Mallik
2	Madhurima Moullick	1692001	M. Moullick
3	Asmita Mondal	1692002	A. Mondal
4			
5			

M. Moullick
12/04/18

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Heritage Institute of Technology, Kolkata

List of Participant
2nd Inter College Competition on "Prototype Design for Mankind" on 28th April
 Organized by Department of Applied Electronics & Instrumentation Engineering
 Heritage Institute of Technology, Anandapur, Kolkata-107

Sl. No	Name	Dept.	Institute/Organization	Mobile no	Participation Type	Project Title	Reg. Amt.	Food Preference	Signature
1	AANKITA MUKHERJEE	AEIE	HERITAGE INSTITUTE OF TECHNOLOGY	8013650191	Participant		Rs. 150/-	Non Veg	
2	Abeer Lal Roy	AEIE	Heritage Institute of Technology ✓	8697473216	Competitor	i-Cube	Rs. 200/-	Non Veg	Abeer Lal Roy
3	ABHIJIT NANDI	AEIE	ACADEMY OF TECHNOLOGY	7076607280	Competitor	SMART HOME AUTOMATION	Rs. 200/-	Non Veg	Abhijit Nandi
4	Abhinav Bhattacharya	AEIE	Heritage Institute of Technology ✓	7430974338	Competitor	Smart Car	Rs. 200/-	Non Veg	
5	Abhishek Chatterjee	AEIE	Academy of Technology	8584881977	Competitor	Home Automation	Rs. 200/-	Non Veg	Abhishek Chatterjee
6	ABRITI CHATTERJEE	AEIE	HERITAGE INSTITUTE OF TECHNOLOGY	8603186889	Participant		Rs. 150/-	Non Veg	
7	Agnibha Bhattacharjee	AEIE	Heritage Institute of Technology	8582810114	Participant		Rs. 100/-	Non Veg	Agnibha Bhattacharjee
8	AJIT THAKUR	EE	CAMELIA INSTITUTE OF TECHNOLOGY	8420965787	Competitor	LINE FOLLOWING ROBOT	Rs. 200/-	Non Veg	Ajit Thakur
9	Ajoy Sengupta	AEIE	Heritage Institute of Technology ✓	9830800664	Competitor	Smart Car	Rs. 200/-	Non Veg	Ajoy Sengupta
10	AKSHYADRIK SENGUPTA	ECE	RCC INSTITUTE OF INFORMATION TEC.	8584057011	Competitor	Lipoxy-efficient Battery Charger Design for Generating Light	Rs. 200/-	Non Veg	Akshyadrik
11	Atakananda Mukherjee	ECE	Heritage Institute of Technology	9836800177	Participant		Rs. 150/-	Non Veg	
12	Anita Chattermadhyay	AEIE	Heritage Institute of Technology	8145106744	Participant		Rs. 150/-	Veg	
13	Aniket Roy	CSE	Camelia Institute Of Technology	8584035431	Competitor	Fabrication of solar powered computer using raspberry pi	Rs. 200/-	Non Veg	Aniket Roy
14	Anirban De	AEIE	Heritage Institute of Technology	9674484423	Participant		Rs. 130/-	Non Veg	Anirban De
15	Anish Nayal	CSE	Camelia Institute Of Technology	0874704956	Competitor	Fabrication of Solar powered computer using raspberry pi	Rs. 200/-	Non Veg	Anish Nayal
16	Amaraj Choudhury	AEIE	Heritage Institute of Technology	7278065071	Participant		Rs. 150/-	Non Veg	Amaraj Choudhury


 Dept. of Applied Electronics & Instrumentation Engineering
 Heritage Institute of Technology

17	Aqsa Zca	AEIE	Techno India, Salt Lake	8981302855	Competitor	Wireless Health Monitoring System Using Arduino	Rs. 200/-	Veg	Apurva
18	Archita Roy	FCI	Heritage Institute Of Technology	8017026151	Competitor	Integrated anti-theft alert system for automobile batteries	Rs. 200/-	Non Veg	Archita Roy
19	Arjit Majumder	AEIE	Heritage Institute of Technology	9163889541	Participant		Rs. 150/-	Non Veg	
20	Arju Patra	CE	Camellia Institute Of Technology	9674444724	Competitor	WASTE WATER TREATMENT PLANT MODEL	Rs. 200/-	Non Veg	
21	Arshia Bhattacharjee	ECE	Institute of Engineering & Management	7003035002	Participant		Rs. 150/-	Non Veg	
22	Arunava Ghosh	EE	Heritage Institute of Technology	9475254284	Competitor	Water Level Detector	Rs. 200/-	Non Veg	
23	Arunima Sarkar	AEIE	Heritage Institute of Technology	9735443781	Participant		Rs. 150/-	Non Veg	Arunima Sarkar
24	Avijit Ghosh	Physics	University of Gour Banga	7602621586	Participant		Rs. 150/-	Non Veg	
25	Bibhasan Chatterjee	AEIE	Heritage Institute Of Technology	7059150034	Participant		Rs. 150/-	Non Veg	
26	Bibhasan Chatterjee	ECE	Camellia Institute of Technology	8478940389	Competitor	Fabrication of solar powered computer using raspberry pi	Rs. 200/-	Non Veg	Bibhasan Chatterjee
27	Bin Bireswar Bala	CSE	CAMELLIA INSTITUTE OF TECHNOLOGY	7980305298	Project Competitor	LINE FOLLOWING ROBOT	Rs. 200/-	Non Veg	Bin Bireswar Bala
28	Bishwarup Dutta	AEIE	Heritage Institute of Technology	7278521456	Participant		Rs. 150/-	Non Veg	
29	Chandani Banerjee	AEIE	IITK	9547113604	Participant		Rs. 150/-	Non Veg	Chandani
30	DEVDEEP DUTTA	AEIE	IIT-k	7059903792	Participant		Rs. 150/-	Non Veg	Devdeep
31	Dipam Das	AEIE	Heritage Institute of Technology	9933435747	Participant		Rs. 150/-	Non Veg	
32	DIPANWITA BANERJEE	ECE	HERITAGE INSTITUTE OF TECHNOLOGY	9804857974	Competitor	Integrated anti-theft alert system for automobile batteries	Rs. 200/-	Non Veg	Dipankar Banerjee
34	INDROJYOTI RANO	AEIE	Asansol Engineering College	7909095898	Competitor	Vehicle Tracking And Security System	Rs. 200/-	Non Veg	Indrojyoti Rano
35	JAYPRIT HAQUE LASKAR	AEIE	HERITAGE INSTITUTE OF TECHNOLOGY	8109003295	Competitor		200/-	Non Veg	Jayprith Haque
36	Jiya Bala	AEIE	Techno India, Salt Lake	9883392606	Competitor	Wireless Health Monitoring System Using Arduino	Rs. 200/-	Non Veg	Jiya
37	Joy Kumar Chakrabarty	CSE	Camellia Institute Of Technology	9804571736	Competitor	Fabrication of solar powered computer using raspberry pi	Rs. 200/-	Non Veg	Joy Kumar Chakrabarty
38	Jyoti Das	AEIE	IIT	8826057732	Participant		Rs. 150/-	Non Veg	Jyoti Das
39	Kaustav Banerjee	AEIE	Heritage Institute of Technology	7998304203	Participant	iCube: A new way to control your home	Rs. 150/-	Non Veg	

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Heritage Institute of Technology, Kolkata
28/04/17

40	Kanav Daksht	AEIE	HIT-K	947205734	Participant		Rs. 150/-	Non Veg	
41	KUMARARIT YADAV	AEIE	ASANSOL ENGINEERING COLLEGE	8759408455	Competitor	ARTIFICIAL INTELLIGENCE WHEELCHAIR	Rs. 200/-	Veg	Aarti Yadav
42	Kushal Das	AEIE	Haldia Institute of Technology	9531767703	Competitor	IOT BASED SMART HOME AUTOMATION	Rs. 200/-	Non Veg	Kushal Das
43	Mayank thakur	AEIE	Heritage institute of technology	8276016509	Competitor	Smart spoon	Rs. 200/-	Veg	Mayank
44	MD IFTEKAR ALAM	BMI	UNIVERSITY OF CALCUTTA	9609650741	Competitor	A Heartbeat and Temperature Measuring System for Remote Health Monitoring	Rs. 200/-	Non Veg	MD Iftekar
45	MD Salik	EF	Heritage Institute of Technology	9547296170	Competitor	Water Level Detector	Rs. 200/-	Veg	
46	MD Didar	AEIE	Haldia Institute of Technology	8348127192	Competitor	IOT BASED SMART HOME AUTOMATION	Rs. 200/-	Non Veg	MD Didar
47	Megha Saha	AEIE	Heritage Institute of Technology	8337081010	Participant		Rs. 100/-	VEG (Non Veg)	Megha Saha
48	Mehuli Ghosh	ECE	Heritage Institute of Technology	9007508872	Competitor	Integrated Anti-theft alert system for automobile batteries	Rs. 200/-	Non Veg	Mehuli Ghosh
49	Momak Goni	ECE	Heritage	9614680484	Competitor		Rs. 200/-	Non Veg	Momak Goni
50	MONDIRA SAHA	CSE	CAMELLIA INSTITUTE OF TECHNOLOG	9836079135	Project Competitor	LINE FOLLOWING ROBOT	Rs. 200/-	Non Veg	
51	ONKAR NATH BHAKAT	E.C.E	HERITAGE INSTITUTE OF TECHNOLOG	8981027161	Competitor	INTEGRATED ANTI-THEFT ALERT SYSTEM FOR AUTOMOBILE	Rs. 200/-	Non Veg	O. Bhakat
52	pritam kundu	AEIE	hit kolkata	9836043525	Participant		Rs. 100/-	Non Veg	P. Kundu
53	Pritam Sautra	AEIE	Heritage Institute of Technology	8274890695	Participant		Rs. 150/-	Non Veg	
54	Puja Sharma	AEIE	Heritage Institute of Technology	8420654251	Participant	Prototype Design	Rs. 100/-	Veg	
55	Radhika Chatterjee	AEIE	Techno India Salt Lake	8274847705	Competitor	Pulse rate monitoring using embedded system	Rs. 200/-	Non Veg	Radhika Chatterjee
56	Raj Chakraborty	AEIE	Heritage Institute of Technology	8582026198	Participant		Rs. 100/-	Non Veg	Raj Chakraborty
57	Rajrishi Dhar	ECE	RCC Institute of Information Technology	9674676823	Competitor	Cost Efficient LPG Gas Sensing Module with Accident Prevention Feature	Rs. 200/-	Non Veg	Rishi
58	Rajdeep Chatterjee	E.C.E	Heritage Institute of Technology	9007483120	Competitor	Integrated Anti-Theft Alert System for Automobile Batteries	Rs. 200/-	Non Veg	Rajdeep Chatterjee
59	Ratan Masanta	EF	Heritage Institute of Technology	7013441396	Competitor	Water Level Detector	Rs. 200/-	Non Veg	
60	RIBUTA BAGCHI	ECE	Heritage Institute of Technology	9073174069	Competitor	Integrated Anti-theft alert system for automobile batteries	Rs. 200/-	Non Veg	Ributa Bagchi
61	Roma Gupta	AEIE	Heritage institute of technology	8276960678	Participant		Rs. 150/-	Veg	

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Signature

Date

Mehuli

28/04/17

62	Rohit Kumar	AEIE	Heritage institute of technology	9800184111	Participant		Rs. 150/-	Veg	Rohit Kumar
63	Roni Mondal	E.E	CAMELIA Institute of Technology	8276829613	Competitor	Line Following Robot	Rs. 200/-	Non Veg	
64	RONI MONDAL	EE	CAMELIA INSTITUTE OF TECHNOLOGY	8276829613	Competitor	LINE FOLLOWING ROBOT	Rs. 200/-	Non Veg	Roni Mondal
65	Roshan Jha	AEIE	Bankura umayanti institute of engineering	9051664737	Competitor	IDT Theft Detection Using Raspberry	Rs. 200/-	Non Veg	
66	Rupayan Paul	AEIE	Heritage Institute of Technology	9051085226	Competitor	Automated Railway Level Crossing	Rs. 200/-	Non Veg	
67	RUPAYAN PAUL	AEIE	HERITAGE INSTITUTE OF TECHNOLOGY	9051085226	Competitor	Automated Railway Level Crossing	Rs. 200/-	Non Veg	
68	Rwitoban Ghosh	AEIE	Heritage institute of technology	9674119247	Competitor	i-cube	Rs. 200/-	Non Veg	
69	SARYASACHI TEWARY	AEIE	HERITAGE INSTITUTE OF TECHNOLOGY	9883215667	Participant		Rs. 150/-	Non Veg	Saryasachi Tewary
70	SAGAR MITRA	FCE	RCC INSTITUTE OF INFORMATION TEC	8902232893	Competitor	Energy-efficient Battery Charger Design for Generating Light	Rs. 200/-	Non Veg	Sagar Mitra
71	Saheli Mukherjee	Aeie	Heritage Institute of Technology	9874951302	Participant		Rs. 100/-	Non Veg	Saheli Mukherjee
72	SAIKAT MONDAL	AEIE	ACADEMY OF TECHNOLOGY	9647040767	Competitor	SMART HOME AUTOMATION	Rs. 200/-	Non Veg	Saikat Mondal
73	Sambuddha Hazra	AEIE	Heritage Institute Of Technology	9674014753	Participant		Rs. 150/-	Non Veg	Sambuddha Hazra
74	Samrat Dey	AEIE	Techno India, Salt Lake	7890361594	Competitor	Wireless Health Monitoring System Using Arduino	Rs. 200/-	Non Veg	Samrat Dey
75	Sanjatta Das	EE	CAMELIA Institute Of Technology	9874374485	Competitor	Fabrication of Solar powered computer using raspberry pi	Rs. 200/-	Non Veg	Sanjatta Das
76	Sourav Kumar	FIE	Techno India, Salt Lake	8420887626	Participant	Pulse Rate Monitoring Using GSM Module	Rs. 200/-	Veg	Sourav Kumar
77	Soyak Pal	AEIE	Academy of Technology	+917278817491	Competitor	Home Automation	Rs. 200/-	Non Veg	SKP.
78	Sayantan Pal	AEIE	Heritage Institute of Technology	8335916861	Participant	Development of a prototype skin color monitor for non-invasive estimation of	Rs. 150/-	Non Veg	
79	Shiladitya Chakraborty	AEIE	Heritage Institute of Technology, Kolkata	8697685946	Participant		Rs. 100/-	Non Veg	Shiladitya Chakraborty
80	Shreemoyee Bhattacharyya	ECE	RCC Institute of Information Technology	9874075590	Competitor	Cost Efficient LPG Gas Sensing Module with Accident Prevention Features	Rs. 200/-	Non Veg	
81	Shruya Saha	AEIE	Heritage Institute of Technology	9674384756	Participant		Rs. 150/-	Veg	
82	Shubhrajit Ray	AEIE	Heritage Institute of Technology	9932342304	Participant		Rs. 150/-	Non Veg	
83	Shuvrodeep Pal	AEIE	Academy of Technology	7378367761	Competitor	Smart House	Rs. 200/-	Non Veg	

Professor & HOD
Applied Electronics & Instrumentation
Heritage Institute of Technology, Kolkata
20/04/17

84	Neha Chakraborty	AEIE	Heritage Institute of Technology	8350007010	Participant		Rs. 100/-	Non Veg	
85	Sohini Mukherjee	AEIE	Heritage Institute of Technology	8376853723	Participant		Rs. 100/-	Non Veg	Sohini Mukherjee
86	Sourkalya Laha	AEIE	Heritage Institute of Technology	9830083858	Participant		Rs. 150/-	Non Veg	
87	SOMKALPA LAHA	AEIE	HERITAGE INSTITUTE OF TECHNOLOG	9830083858	Participant		Rs. 150/-	Non Veg	Sourkalya Laha
88	SOURMYADIP NANDI	AEIE	HERITAGE INSTITUTE OF TECHNOLOG	9804373304	Competitor	Automated Railway Level Crossing	Rs. 200/-	Non Veg	Sourmyadip Nandi
89	Sourmyadip Nandi	AEIE	Heritage Institute of Technology	9804373304	Competitor	Automated Railway Level Crossing	Rs. 200/-	Non Veg	
90	SOURAV RAKSHIT	AEIE	ASANSOL ENGINEERING COLLEGE	8256202157	Competitor	Artificial intelligence wheelchair	Rs. 200/-	Veg	Sourav Rakshit
91	Sourav Sarkar	AEIE	Academy Of Technology	8981832518	Competitor	Pedal Powered Mobile Charger	Rs. 200/-	Non Veg	Sourav Sarkar
92	Sourav Mallik	AEIE	Heritage Institute of Technology	8922251686	Participant		Rs. 150/-	Non Veg	Sourav Mallik
93	SUBHAJEEB GHOSH	ECE	RCC INSTITUTE OF INFORMATION TEC	9046190901	Competitor	efficient Battery Charger Design for Generating Light	Rs. 200/-	Non Veg	Subhadip Ghosh
94	Subhanil Chakraborty	AEIE	Haldia Institute of Technology	7076377595	Competitor	IOT BASED SMART HOME AUTOMATION	Rs. 200/-	Non Veg	Subhanil Chakraborty
95	SUBHANS SAMANTA	AEIE	HERITAGE INSTITUTE OF TECHNOLOG	8145396729	Participant		Rs. 150/-	Non Veg	
96	Sudam Karmakar	AEIE	Heritage Institute of Technology	9477310268	Participant		Rs. 150/-	Non Veg	S. Karmakar
97	Sudam Biswaschatterjee	ME	Heritage Institute of Technology	9874428514	Competitor	Industry 4.0 based Product Life Cycle Management	Rs. 200/-	Non Veg	Sudam Biswaschatterjee
98	Sumit Banerjee	AEIE	Techno India Salt Lake	9874036778	Competitor	Pulse rate monitoring using embedded system	Rs. 200/-	Non Veg	Sumit Banerjee
99	Suvam Ghosh	AEIE	Academy of Technology	7688004331	Competitor	Home automation	Rs. 200/-	Non Veg	Suvam Ghosh
100	Suyaman Sinha	AEIE	Heritage Institute Of Technology	8335917075	Competitor		Rs. 150/-	Non Veg	
101	Suyaman Sinha	AEIE	Heritage Institute Of Technology	8335917075	Participant		Rs. 150/-	Non Veg	Suyaman Sinha
102	Tanya Ghose	AEIE	IIT-K	9051789202	Participant		Rs. 100/-	Non Veg	Tanya Ghose
103	Tanmay Koley	AEIE	Heritage Institute of Technology	9674025928	Competitor	Automated Railway Level Crossing	Rs. 200/-	Non Veg	
104	Tanmay Ghosh	AEIE	Heritage Institute of Technology	8479946190	Competitor	FOSE	Rs. 200/-	Non Veg	
105	Tanmay Ghosh	AEIE	Heritage Institute of Technology	8479946190	Competitor	FOSE	Rs. 200/-	Non Veg	
106	Tanish Rakshit	AEIE	Heritage Institute of Technology	9831866611	Participant	Automatic Water level & controller by Arduino	Rs. 150/-	Non Veg	Tanish Rakshit

1019-2022-23

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21/04/17

107	TULIKA Das	AEIE	Heritage Institute of Technology	9674431263	Participant		Rs. 150/-	Non Veg	Tulika Das
108	Utkarsh Singhania	AEIE	Heritage Institute of Technology	8444965214	Participant		Rs. 100/-	Veg	Utkarsh Singhania
109	UTSAV MITRA	AEIE	Heritage Institute of Technology	9007496871	Competitor	Design & Fabrication of a robust gas sensing system for monitoring	Rs. 200/-	Non Veg	Utsav Mitra
110	Utkas Shah	AEIE	Techno India, Salt Lake	8697108688	Competitor		Rs. 200/-	Veg	Utkas Shah
111	Vijayaditya Handepadhyay	AEIE	Heritage Institute of Technology	9830677532	Participant		Rs. 150/-	Non Veg	Vijayaditya Handepadhyay
112	Vivek Deyhan	AEIE	Heritage Institute of Technology Kolkata	7595843840	Competitor		Rs. 100/-	Non Veg	Vivek Deyhan
113	Yash Agarwal	AEIE	Heritage Institute of Technology	8910047921	Competitor	Automated Railway Level Crossing	Rs. 200/-	Veg	
114	YASH RAJ	AEIE	HERITAGE INSTITUTE OF TECHNOLOGY	7070161001	Participant	Prototype Design For Maskind	Rs. 150/-	Veg	
115	Zeba Tabassum	AEIE	Techno India saltlake	9831779187	Competitor	Wireless health monitoring system using arduino	Rs. 200/-	Veg	Zeba Tabassum
116	Sanchita Chakraborty	AEIE	Heritage Institute of Technology	98615448	Participant		Rs. 100	Non Veg	Sanchita Chakraborty
117	Manaswita Biswas	AEIE	Heritage Institute of Technology	9831368394	Competitor	Asthma Detector	200/-	Non Veg	Manaswita Biswas
118	Ayan Ghosh		Techno India, Saltlake	9674109916	"			Non-Veg	Ayan Ghosh
119	Ashim Roy		Techno India, Salt lake					Non-Veg	Ashim Roy
120	Ankita Datta		Techno India, Salt Lake					Non-Veg	Ankita Datta
121	Rajanya Sen		"					Non-Veg	Rajanya Sen
122	Shiratik Chakraborty		"					Non-Veg	Shiratik Chakraborty
123	Neil Ganguly		"					Non-Veg	Neil Ganguly
124	Anka Bhosnick	AEIE	AOT						
125	Indrani Chakraborty	AEIE	AOT	8274859762	competitor	Portel Power Phone charger	200/-	Non Veg	Indrani Chakraborty
126	Ashish K R	AEIE	HIT K	7278736691	Competitor	Portel Power phone charger	200/-	non veg	Ashish K R
	Vijayaditya Handepadhyay	AEIE	HIT K	785780991	Participant		200/-	non veg	Vijayaditya Handepadhyay
				9830677532	Participant				

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 Heritage Institute of Technology
 Kolkata
 20/04/17

Welcome
Chief Guest
to
4th Inter College Competition on
"Prototype Design for Mankind"



Dr. Kuttanellore
Muraleedharan
Director, CSIR-IGCRI

