

# HETC Chronicle

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## Campus News- On and Off

- The Orientation Programme for newly admitted 1<sup>st</sup> Year students was held on 13<sup>th</sup> August 2014.
- A 3-day Entrepreneurship Awareness Camp was organized by the Entrepreneurship Development Cell of HETC in collaboration with Enterprise Development Institute, Kolkata during 30th July to 1st August, 2014. 75 students successfully completed the programme.

## Events Organized

- The Computer Science & Engineering Department organized a Half-day seminar on 'Big Data and Analytics' in association with Data Brio Academy on 13th August 2014.
- Students of Civil Engineering Department organized 'CIVIL-O-PEDIA', an Inter-college Competition on Technical Quiz, Technical Paper and Debate on 12th September, 2014.
- Students of Mechanical Engineering Department organized 'MECH-QUEST - 2014', an Intra-college Quiz and Presentation Competition on 16th September, 2014.

## Consultancy Work

- ❖ Department of Civil Engineering took up Consultancy Work on Testing of Concrete Cube Moulds and steel bars of various grades for Mondal Construction Co. Ltd.
- ❖ Department of Civil Engineering has taken up Consultancy Work on Testing of Soils, Sands, Bricks, Aggregates and Water of various sites of M/S Furnace Febrica (India) Ltd. working on behalf of IOCL. The work is in progress.

## Departmental Academic Activities

### Civil Engineering Department

- News bulletin (CE NEWS- No. II. Vol - I) was published on November, 2014.

### Seminars organized

#### Civil Engineering Department

- Prof. Mainak Bhattacharya delivered a Lecture on the topic of “Treatment for Arsenic removal from water”, on 28th August, 2014.
- Prof. Debashis Bhattacharya delivered a Lecture on the topic of “An assessment of tied-arch-action in rectangular reinforced concrete beams with plain web failing in shear”, on 14th November, 2014.

#### Computer Science & Engineering Department

- Prof. Rajkumar Mondal delivered a Lecture on the topic of "Routing Protocol in Wireless Sensor Network" on 8th August, 2014.
- Prof. Sanghamitra Das delivered a Lecture on the topic of "Rough Set Theory" on 22nd October, 2014.

#### Electrical Engineering Department

- Prof. Avijit Maity delivered a Lecture on the topic of “Asynchronous Operation of Synchronous Generator under Field Failure” on 6<sup>th</sup> March, 2014.
- Prof. Mousumi Jana Bala delivered a Lecture on the topic of “Characterisation of Single-Phase Permanent Magnet Induction Motor” on 23<sup>rd</sup> July March, 2014.
- Mr. Debasish Bose delivered a Lecture on the topic of “To determine shunt and series parameters of a single phase transformer by performing open and short circuit test” on 1<sup>st</sup> August, 2014.

#### Electronics & Communication Engineering Department

- Prof. Deb Kumar Sheet delivered a Lecture on the topic of “Telecommunication Signaling” on 26<sup>th</sup> July 2014.
- Mr. Ratan Kr. Paul, delivered a Lecture on the topic of “AM Radio Receiver” on 2<sup>nd</sup> August 2014.
- Dr. Arindam Biswas delivered a Lecture on the topic of “A journey from classical to quantum breathers in optical communication” on 9<sup>th</sup> August 2014.
- Prof. Jagadish Bhattacharya delivered a Lecture on the topic of “VLSI Design Flow” on 16<sup>th</sup> August 2014.
- Ms. Shyamali Gayen delivered a Lecture on the topic of “Voice Communication using FM” on 23<sup>rd</sup> August 2014.
- Mr. Manish Kr. Singh delivered a Lecture on the topic of “Robot Arm Kinematics” on 13<sup>th</sup> September, 2014.

#### Mechanical Engineering Department

- Prof. Abhishek Mandal delivered a Lecture on the topic of “Analytical hierarchy Process”, on 9<sup>th</sup> August, 2014.
- Prof. Shamik Ghosh delivered a Lecture on the topic of “Night Vision Technology in Automobiles”, on 26<sup>th</sup> August 2014.
- Prof. Samir Ghosh delivered a Lecture on the topic of “Bio-diesel is the perspective diesel fuel for India”, on 28<sup>th</sup> October, 2014.

## General Science & Humanities Department

- Mr. Sourav Chowdhury delivered a Lecture on the topic of “Android Overview” at the fifth Departmental Seminar on 19<sup>th</sup> July, 2014.
- Dr. Sankar Prasad Mukherjee delivered a Lecture on the topic of “Challenges for future Engineer makers: An overview” at the sixth Departmental Seminar on 5<sup>th</sup>. August, 2014.
- Mr. Abhranil De delivered a Lecture on the topic of “Global Warming and its consequences” at the seventh Departmental Seminar on 9<sup>th</sup>. September, 2014.
- Ms. Tamoghna Datta delivered a Lecture on the topic of “Beyond ‘Englishness’: An overview of India’s dialogue with the English language” at the eighth Departmental Seminar on 10<sup>th</sup>. November, 2014.
- Mr. Kallol Mallik delivered a Lecture on the topic of “World War II: The rise of super power” at the ninth Departmental Seminar on 22<sup>nd</sup>. November, 2014.

## Students’ Achievements

- Fourth year students, Kaustav Ghosh and Deepranjan Paul stood first in the Technical Quiz competition of ‘CIVIL-O-PEDIA’ organized by Civil Engineering Department of HETC.
- Third year students, Pritam Mondal, Debdyuti Nath and Anirban Saha stood first in the Debate competition of ‘CIVIL-O-PEDIA’ organized by Civil Engineering Department of HETC.

## Students’ Participations

- Sudipto Bhowmik and Sourav Chandra will present the paper, “A comparative study on central lobe of frequency response curve for FIR Filter using Window Techniques”, in International Conference on Computing, Communication and Manufacturing 2014 (ICCCM 2014) , ACEEE 2014 , December 2014 , Kolkata , West Bengal , India. [Accepted and to be Published]
- Sayantan Sen, Aritra Mukherjee and Aparna Roy Chowdhury, 4<sup>th</sup> year students of EE department participated in the 1<sup>st</sup> Students Conclave with the theme “Reform of Engineering Education for Better Employability of Engineers”, organized by Engineering Council of India on 3<sup>rd</sup> September 2014 at the auditorium of Indian Institute of Chemical Engineers, JU Campus, Kolkata.

## Publications of Students

- T. Singha, S. Sakhari, T Sarkar, P. Das of 4<sup>th</sup> year Mechanical Engineering Dept. (2010-14 Batch) under the supervision of Prof A. Dutta & Dr. A. Patra, published a paper titled "Experimental Analysis of utilization of Heat Using Methanol-Disel Blended Fuel in Four Stroke Cylinder Water Cooled Diesel Engine", in the “International Journal of Engineering Research and Technology”, ISSN: 2278-0181, Vol. 3, issue 6, June-2014. pp 375-379.
- T. Singha, S. Sakhari, T Sarkar, P. Das of 4<sup>th</sup> year Mechanical Engineering Dept. (2010-14 Batch) under the supervision of Prof A. Dutta, published a paper titled “The Effect of Load and the Methanol Percentage in the Blended Fuels on the Performance of Four Stroke Single Cylinder Water Cooled Diesel Engine” in “International Journal of Emerging Technology & Advanced Engineering” ISSN 2250-2459, Volume 4, Issue 6, June, 2014.

## Faculty Participation

- Prof. Rajdip Paul and Prof. Tanumoy Ghosh attended a short term training programme on “Laboratory test on Concrete and Introduction to Non Destructive Testing”, Organized by NITTTR, Kolkata from 22<sup>nd</sup> to 26<sup>th</sup> September, 2014.
- Prof. Rajdip Paul and Prof. Tanumoy Ghosh attended a seminar on “Research Methodology”, Organized by IEST, Shibpur from 26<sup>th</sup> to 28<sup>th</sup> November, 2014.
- Prof. Sirshendu Hore of CSE Department, attended a one week TEQIP sponsored Faculty Development programme (FDP) on “Cloud Computing and Social Network (FDP-CCSN) “ from 14th October to 18th October 2014, jointly organized by Department of computer Science and Information Technology ,MCKV Institute of Engineering.
- Prof. Sirshendu Hore, Prof. Sandeep Bhowmik of CSE Department and Mr. Anish Srivastav, TPO, HETC attended “Big Data Analytics Summit”, organized by NASSCOM in association with WILEY on 16th July, 2014 at Park Hotel, Kolkata.
- Prof. Abhijit Dutta attended a complimentary seminar on “MATLAB & Simulink for Engineering Education” organized by MathWorks on 7th November, 2014 in Kolkata.
- Prof. Abhranil De, participated in a seminar on “Recent advances in Chemistry: Challenges & Opportunities” on 21<sup>st</sup> & 22<sup>nd</sup> August, 2014 in Dept. of Chemistry, Raghunathpur College, Purulia-723133.
- Prof. Sandip Das attended a Two-week ISTE Workshop on Control Systems, conducted by IIT Kharagpur, under the National Mission on Education through ICT (MHRD, Govt. of India), from 2<sup>nd</sup> to 12<sup>th</sup> December, 2014.

## Faculty Achievements

- Prof. Rajdip Paul has become a member of IRC with effect from October, 2014.
- Prof. Tanumoy Ghosh has become a member of IRC with effect from October, 2014.
- Prof. Arpita Das has become a member of Institute of Engineers with effect from August, 2014.
- Prof. Mainak Bhattacharya, one of the faculty members of the department has been selected as the No. 1 candidate for pursuing Ph.D at IIT, Kanpur.
- Prof. Subham Ganguly of General Science & Humanities Department has obtained his M.Phil. degree in English from Rabindra Bharati University, Kolkata in 2014.
- One PhD Thesis for award of Doctor of Philosophy is to be submitted (Pre-submission seminar over) at NIT Durgapur under the able guidance of Prof. (Dr.) Arindam Biswas (Co-supervisor).
- Prof. Rupam Some enrolled for PhD in September, 2014 in Indian Institute of Engineering Science & Technology.

## Publications of Faculty Members

### Publications in Journals

#### ❖ International Journal

#### Computer Science & Engineering Department

- T. Bhattacharya, **S. Hore** and S. R. Bhadra Chaudhuri. “ A Semi-Fragile Blind Digital Watermarking Technique for Medical Image File Authentication using Stationary Wavelet Transformation” ,in International Journal of Computer Applications ,Volume 104, Number 11: pp.8-13, October 2014,doi 10.520/18245-9245.

## Electronics & Communication Engineering Department

- S Das, P Chowdhury, **Arindam Biswas**, P.P. Sarkar, “Analysis of a Miniaturized Multiresonant Wideband Slotted Microstrip Antenna with Modified Ground Plane”, IEEE Antenna and Wireless Propagation Letters (Doi:10.1109/LAWP.2014.2354474), (Online First).
- Saswata Chakraborty, **Arindam Biswas**, Aniruddha Ghosal, A.K Bhattacharjee, “Velocity-field and Conductance Characteristics of GaN Quantum Well Wire” , Journal of Electron Devices (France), Vol. 19, pp. 1670-1673 (2014).
- Saswata Chakraborty, **Arindam Biswas**, Aniruddha Ghosal, S Mazumder, A.K Bhattacharjee, “Current-Voltage Characteristics of GaN MOSFET: A Monte-Carlo Simulation”, Archive of Applied Science Research, Vol 6, pp. 23-26 (2014).
- Saswata Chakraborty, **Arindam Biswas**, Aniruddha Ghosal, S Mazumder, A.K Bhattacharjee, “Fundamental of Electron Transport in Semiconductor: A Review”, Int. J. Electronics and Communication Tech. (Cosmic Journal), Vol 5, pp. 235-246 (2014).
- Asif Iqbal Mondal, Bijay Mandal, Subhra Jyoti Mandal, **Arindam Biswas** and A K Bhattacharjee, “Designing Architecture for Security of Wireless Sensor Networks Environmental”, Journal of Telecommunication (UK), Vol 27, pp.1-8 (2014).
- P Chakraborty, S K Mandal, B Mandal, **Arindam Biswas**, A K Bhattacharjee, and D P Chakravarti, “A Unified Approach for Metamaterial with Absorbing Boundary Condition using FDTD”, Archives of Applied Science Research, Vol 6, pp.284-289 (2014).
- P Chakraborty, **Arindam Biswas**, A Ghosal, “Oscillating Magneto resistance with Low Temperature in CdSe Nanostructure ”, Int. J. Electronics and Communication Tech. (Cosmic Journal), Vol 5, pp. 134-135 (2014).
- Asif Iqbal Mondal, Bijay Mandal, Subhra Jyoti Mandal, **Arindam Biswas** and A K Bhattacharjee, “Design for Sensor Security in Bluetooth Network”, Int. J. Advanced Science and Technology (Korea) (In Press).

## Mechanical Engineering Department

- **Supriyo Roy**, Prasanta Sahoo, “Small optimization of wear of electroless Ni-P-Cu coating using artificial bee colony algorithm”, Procedia Technology 14 (2014) 320-327; doi: 10.1016/j.protcy.2014.08.042.
- **Smitadhi Ganguly**, A. Nandi, S. Neogy, “Stability analysis of non-axisymmetric three-dimensional finite element rotor models with partial and full mass lumping”, Sadhana, Vol. 39, Part 3, June 2014, pp. 597–606, doi: 10.1007/s12046-014-0246-5.

## General Science & Humanities Department

- **R. Patra**, S. P. Barik, M. Kundu and P.K.Chaudhuri, “Plane Elastostatic Solution in an Infinite Functionally Graded Layer Weakened by a Crack Lying in the Middle of the Layer”, International Journal of Computational Mathematics, Volume 2014 , Article ID 358617.
- Dhananjay Dey, Hare Ram Yadav, **Abhranil De**, Sourav Chatterjee, Milan Maji, Angshuman Roy Choudhury, Niranjana Koley and Bhaskar Biswas, “Synthesis, structural Characterization, and solution properties of a 1D Pb(II)-bipyridine coordination polymer”, Journal of Coordination Chemistry, UK, DOI 10.1080/00958972.2014.985215.
- **Subham Ganguly**, “Revolutionary Insurgency and its Aftermath: A Close Reading of Jhumpa Lahiri’s *The Lowland*”, International Journal of English Language, Literature & Humanities, Volume II, Issue VII, pp. 197-203, November 2014, ISSN: 2321-7065.

## ❖ National Journal

### Civil Engineering Department

- **Bhattacharya, P.G., Ghosh, T. and Paul, R.**, “Assessment of Suitability of Lime-Laterite Soils in the Construction of Road Base”, Indian Roads Congress, Volume 42; Issue 11; November 2014; ISSN 0376-7256.

### Other Areas

- **N. Tarafder**, “Evaluation of Properties and Clothing Comfort – A Review”, Man-Made Textiles in India, Vol. XLII, April 2014, No. 4, pp. 132 - 136.
- **N. Tarafder**, “Textiles for Protection Against Harmful Ultraviolet Radiation – Part II”, Man-Made Textiles in India, Vol. XLII, August 2014, No. 8, pp. 300 - 306.
- **N. Tarafder**, “Fancy Yarns – Application and Production Methods”, Man-Made Textiles in India, Vol. XLII, September 2014, No. 9, pp. 334 - 349.

## Publications in Conferences

### ❖ International Conference

#### Computer Science & Engineering Department

- **Rupam Some**, Indrajit Banerjee, “PRMN: Predictive Location Based Routing for Mobile Nodes in Wireless Sensor Network”, published in 2014 Fourth International Conference on Advances in Computing and Communications, IEEE Xplore(pp.309-315).

#### Electrical Engineering Department

- **Sandip Das**, “Logically Organised Sensor Based Prototype Model for Automatic Control of Process Temperature”, Proceedings of The Second International Conference on Information Systems Design and Intelligent Applications – 2015, organized by FETM, University of Kalyani – 741235, W.B., India. [Accepted and to be Published]

#### Electronics & Communication Engineering Department

- **Subhojit Malik, Writi Mitra**, “Estimation of Coefficients of Digital Systems using Genetic Algorithm”, in International Science and Technology Congress 2014 (IEMCON2014) , Elsevier Publications 2014 , August 28-31,2014 , Kolkata , West Bengal , India , pp: 104-110, ISBN : 9789351072485.
- **Subhojit Malik, Writi Mitra**, “A Novel Approach Towards FPGA Implementation of a Multiple Parameter Optimization Technique using Genetic Algorithm”, in International Conference on Computing, Communication and Manufacturing 2014 (ICCCM 2014) , ACEEE 2014 , December 2014 , Kolkata , West Bengal , India. [Accepted and to be Published]
- **Subhojit Malik**, “A comparative study on central lobe of frequency response curve for FIR Filter using Window Techniques”, in International Conference on Computing, Communication and Manufacturing 2014 (ICCCM 2014) , ACEEE 2014 , December 2014 , Kolkata , West Bengal , India. [Accepted and to be Published]
- Bijay Mandal, **Arindam Biswas, Swarup Samanta**, Anup Kumar Bhattacharjee, “Intrinsic Localized Modes in Metamaterials”, International Conference on Opto-Electronics and Applied Optics 2014 (IEM OPTRONIX 2014) held on 17-18 dec.’ 2014, organized by IEM Kolkata (Springer-Verlag).

#### General Science & Humanities Department

- **Akash Roy, N.K. Pandey, Vandna Shakya, Suneet Misra, Sanchita Singh, Anoop Kumar, Alok Kumar**, "Characterization of Nanocomposites of WO<sub>3</sub>-SnO<sub>2</sub> and its Application as a Moisture Sensor", Proceedings

## Photo Gallery



Entrepreneurship Awareness Camp - July 2014



Orientation Programme - August 2014



Big Data and Analytics – August 2014



CIVIL-O-PEDIA – September 2014





MECH-QUEST – September 2014