

INDIAN INSTITUTE OF TECHNOLOGY DELHI  
INDUSTRIAL RESEARCH & DEVELOPMENT UNIT

No.IITD/IRD/SURA-2015/ 2839

Dated: 01/05/2015

References : IITD/IRD/SURA-2015/2530 dated 20/04/2015  
IITD/IRD/SURA-2015/2341 dated 13/04/2015  
IITD/IRD/SURA-2015/2320 dated 10/04/2015  
IITD/IRD/SURA-2015/2335 dated 10/04/2015

The following students have been **shortlisted** to work on the research project as mentioned against each, during summer vacation of 2015. The award will finally be awarded to only those students who are able to complete their project in time and to the satisfaction of the Technical Committee, who will evaluate the outcome of the projects in November 2015

**Deptt. of Chem. Engg. & Deptt. of Bio-chem. & Biotechnology (DBEB)**

#	Title of the Project	Name of the Student & Deptt.	Entry No. & C.G.P.A.	Name and Deptt. of the Project Facilitator	Budget (In Rs.)	Remarks
1.	Magnetic Conditioning of Water	Aman Khandelwal Shubham Badola Chem Engg.	2013CH10069/7.75 2013CH10126/8.11	Prof. Rajesh Khanna Chem. Engg.	25,000/-	
2.	Observing the Growth Pattern of Algae by increasing the solubility of CO <sub>2</sub> in water	Shuchi Maheshwai Alisha Agrawal Chem Engg.	2013CH10127/7.9 2013CH70147/7.8	Dr. Vikram Singh Chem. Engg.	25,000/-	
3.	Exploring Time Dependent Self-discharge of a super capacitor	Anjali Mittal Apoorva Jain Chem Engg.	2013CH10329/9.2 2013CH70839/8.49	Dr. Anupam Shukla Chem. Engg.	25,000/-	
4.	Study of functioning of colloidal Gas Aphron(CGA) as Oil Carrier in a Soil Matrix with Different Salinity Temperature and Pressure Conditions	Madhav Agrawal Shubham Bageshwar Chem Engg.	2013CH10087/7.54 2013CH10969/8.15	Prof. Ashok N. Bhaskarwar Chem. Engg.	25,000/-	
5.	Bacterial Cell Surface display of Dibenzothiophene Monoxygenase(DSZC)	Mira Kabra Vageesh Gupta DBEB	2013BB50022/8.01 2013BB50046/7.6	Dr. Preeti Srivastava DBEB	25,000/-	
6.	Numerical Modeling of STF treated high performance fabric using finite element method and experimental vlidation	Varun Himanshu Goyal Text. Tech.	2013TT10975/8.0 2013TT10932/7.44	Dr. Abhijit Majimdar Text. Tech. Prof. B.P.Patel Deptt. of App. Mech.	-	

**Deptt. of Comp. SC. & Engg. & Mathematics**

7.	Analysing the learning Pattern of students	Akshay Kumar Gupta Kabir Chhabra CS&E	2013CS50275/9.43 2013CS50287/9.24	Dr. Mausam CSE	NIL	
8.	3 D reconstruction using an IMU enabled mobile device	Kartikeya Gupta Prateek Kumar Verma CS&E	2013CS10231/9.78 2013CS10246/8.87	Prof. Subhashis Banerjee CS&E	25,000/-	
9.	Point Location in 3 D Subdivision	Harman Kumar Haroun Habeeb CS&E	2013CS10224/9.35 2013CS10225/9.03	Dr. Sandeep Sen CS&E	NIL	Scope to be limited.

10.	Metal Corrosion	Yash Gupta Rishi Sanmukhani CS&E	2013CS10302/9.31 2013CS10255/9.6	Dr. Subodh Kumar CS&E	NIL	Scope to be limited
11.	Modelling a 3D Humanoid for training rural healthcare providers for analysing the functioning of different body organs and techniques of acupressure	Suryakant Pandey Abhishek Kumar barnwal CS&E	2013CS10261/7.67 2013CS10202/7.90	Prof. Anoop Chawla Mech. Engg. Dr. Subodh Kumar CS&E	NIL	
12.	Real-Time Spoofing Detection for Civilian GPS receivers	Abhishek Gupta Anmol Mahajan CS&E	2013CS50272/8.71 2013CS50278/8.38	Dr. Kolin Paul CS&E	Rs. 5,000/- for IMU proposed during presentation	
13.	Design of a Secure Platform for Cloud Storage Consolidation Data Privacy & Sustainability	Noman Ahmed Sheikh Shivanshu Gupta	2013CS10244/8.89 2013CW50298/8.74	Prof. Huzur Saran CS&E	NIL (as of now due to scope reductions. Can revisit if the tests are achieved earlier.	Scope to be limited.
14.	Predicting Blood Glucose to Reduce Risk of Hypoglycaemia	Mridul Krishna Srishti Singla Maths	2013MT60603/7.98 2013MT60623/8.53	Dr. S. Sampath Mathematics	NIL	
15.	Development of SMS Normalization Scheme using HMM (Hidden Markov Model)	Shubhi Singh Arshdeep Singh Gulati Mathematics	2013MT60621/8.03 2013MT60589/8.67	Prof. N. Chatterjee Mathematics	NIL	
16.	Portfolio Selection using Copula	Kartikay Garg Yash Keerti Mathematics	2013MT60600/9.38 2013MT60626/8.38	Dr. Aparna Mehra Mathematics	should submit the name/ title etc. of the book to be purchased.	

### Deptt. of Civil Engg. & Mech. Engg.

17.	Influence of Waste Plastic on Properties of Asphalt Binder and Asphalt Concrete	Amir Tophel Civil Engg.	2013CE10326/7.54	Dr. Arvind K. Swamy Civil Engg	16,000/-	
18.	Role of thermal properties of soil in harnessing geothermal energy	Roopesh Mittal Onkar Ghorpade Civil Engg.	2013CE10387/8.10 2013CE10366/7.78	Dr. Tanusree Chakraborty Civil Engg	7,500/-	
19.	Application of Phase change material in Green Building of enhance the performance	Padala Suresh Kumar Ajay Yadav Civil Engg.	2013CE10368/8.67 2013CE10319/8.10	Prof. B. Bhattacharjee Civil Engg	25,000/-	Student is requested to submit details of budget which is not provided in the proposal.

20.	Geotechnical Characterisation of Municipal Solid Waste Incinerated Bottom Ash	Shreyansh Somvanshi Yash Mittal Civil Enhh	2013CE10392/8.67 2013CE10419/7.98	Pof. G.V. Ramana Civil Engg	17,500/-	
21.	Hybrid Fibre Reinforced Concrete	Pushpendra Gehlot Sugam Bansal Civil Engg	2013CE10377/7.64 2013CE10397/8.42	Dr. D.R. Sahoo Civil Engg.	25,000/-	
22.	Evaluation of Engineering Properties of Basalt Fiber reinforced Soils	Anurag Singh Civil Engg	2013CE10332/7.83	Dr. R. Ayothiraman Civil Engg.	25,000/-	
23.	Design and Fabrication of Bio-Inspired Varying Liquid Lens	Shivam Agarwal Roshan Patra Mech Engg	2013ME20800/8.92 2013ME10717/7.53	Dr. S.S. Bahga Mech. Engg.	25,000/-	
24.	Smart Casing for Smart Phones	Varan Gupta Rishabh Baid Mech. Enagg.	2013ME10737/8.83 2013ME10712/8.85	Prof. Sudipto Mukherjee Mech Engg	10,850/-	
25.	Modelling of Self intersection and supercoiling of biomolecules	Kumar Sambhava Mech Engg	2013ME10685/8.24	Dr. Ajeet Kumar App. Engg	NIL	
26.	Studying Forward Propulsion in a rigid wing using a simplistic representation of bird flight	Gagan Madan Sauhard Gupta Mech Engg	2013ME10015/9.51 2013ME10117/9.57	Dr. Amit Gupta Mech. Engg.	25,000/-	

### Elect. Engg. & Physics

27.	Fractal and Aperiodic Fibre Bragg Gratings	Romil Audhkhasi Physics	2013PH10032/9.21	Dr. Varsha Banerjee Physics	-	
28.	Compact Modelling of OxRAM Devices	Abhishek Kedia Karan Singh Elect. Engg.	2013EE10431/9.10 2013EE10465/9.48	Dr. Manan Suri Elect. Engg.	-	
29.	RF Driving and Feedback Controlled Circuit for Microplasma Generation	Rahul Singh Dangi Elect. Engg. Tarique Anwar Physics	2013EE10486/7.44 2013PH10877/8.18	Dr. Bhaskar Mitra Elect. Engg.	9,000/-	
30.	Study of Refractive Effects in Digital Images	Pranjal Maheshwari C.S. & E. Tarun Agarwa Elect. Engg.	2013CS50702/9.27 2013EE10505/9.17	Prof. Santanu Chaudhary Elect. Engg.	10,000/-	
31.	Adaptive Finite Element Methods with Applications in Biomedical Imaging	Shreyas Padhy Physics Shikhar Murty Elect. Engg.	2013PH10871/8.67 2013EE10462/8.48	Dr. Uday Khankhoje Elect. Engg.	-	
32.	Low Cost Digital Controller Platform for the Power Electronics Application	Karan Varshney Aditya Porwal Elect. Engg.	2013EE30557/9.29 2013EE30543/7.91	Dr. Ramkrishan Maheshwari Elect. Engg.	20,000/-	
33.	Analysing Small Motion Effects After Video Magnification	Anmol Gupta Harsh Sharma Elect. Engg.	2013EE10437/8.55 2013EE30554/7.45	Dr. Brejesh Lall Elect. Engg.	10,000/-	
34.	Combining Topological Priors with Gene Expression and Interaction Data for the Inference of Gene Regulatory Networks	Armaan Singh Bhullar P. Kishen Suraj Elect. Engg.	2013EE10439/9.64 2013EE10480/9.01	Dr. Sumeet Agarwal Elect. Engg.	-	

35.	Computational Prediction of Origin of Replication in Prokaryotes and Primitive Eukaryotes	Shantanu Kumar Elect. Engg. Barun Patra, C.S. & E.	2013EE10798/9.58  2013CS10773/9.56	Dr. Kushal K. Shah Elect. Engg.		
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### Terms and Conditions

- It is again clarified that the above students have only been **shortlisted** to work on the research proposals submitted by them under SURA – 2015. Only those students who are able to complete their projects to the satisfaction of the technical committee, would finally be given Summer Undergraduate Research Award (SURA) certificate for the year 2015.
- The students are required to submit a **report** on the project by **23/10/2015 (5 p.m.)** at IRD and make a final presentation before the Technical Committee. **In case, the report is not submitted by the students on time, the project will be treated as withdrawn.**
- In case, any student finds it difficult to initiate or make significant progress in his/her respective project during the summer vacation, either due to unavailability of an equipment or his/her other commitments, the students must report the matter immediately in writing to IRD through their Facilitator and request for withdrawal of the project.
- The shortlisted students will be provided remuneration of Rs.1500/- per week per student for maximum period of eight weeks. The payment for first six weeks would be released by IRD accounts at the end of the summer vacation based on the attendance certificate issued by the Project Facilitator. The remaining payment of last two weeks will be made after presentation of the project report. In addition, the student can utilize the budget approved against their project for purchases related to the project activity. All the purchases should be carried out as per the institute store purchase rules with the help of facilitator.

The expenditure on the above projects will be charged to the IRD funds from budget head 'SURA'. The Facilitators will exercise the powers of PI in the implementation of the project.

  
 (V.K. Vashistha)  
 Asstt. Registrar, IRD

### Distribution

1. All shortlisted students through their project facilitators
2. A.R. (IRD) Accounts

