

Newsletter from IIT Patna

Impulse

March 2018 / Vol. X

FROM THE DIRECTOR'S DESK



Dear IIT Patna fraternity

As we commence 2018, embarking on the decennial year of IIT Patna, I wish all of you great year ahead. I truly believe that sustaining excellence is equally, if not more, important than creating the same, for this requires zeal and determination. With its various activities, IIT Patna is making an indelible mark in all the fields of Technology, Science, Humanities and Social Sciences. We strive for an overall mental and physical well-being through harmony of academics, culture and sports. IMPULSE magazine is the platform for reporting such all-round activity of IIT Patna.

I am extremely happy to state that IIT Patna has been placed 108th in the QS University Rankings 2017: BRICS. There are two ways of spreading light: to be the candle or the mirror that reflects it. With the trio of esteemed teachers, bright students and enthusiastic administrative staff, IIT Patna is the light that the world admires, and I have firm faith that IIT Patna will continue reaching ever greater heights. I heartily congratulate and wish good luck to the team of IMPULSE for their laudable efforts in its conceptualization and publication.

विश्व का मुकुटमणि आई आईटी पटना

सदा तत्पर सदा जाग्रत पीछे ना जाने हटना।

Jai Hind!

Prof. Pushpak Bhattacharyya

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APPLIED
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NONINFERIORITY
SECOND EDITION

Gravity
springs and
pendulums

Volume
Sur
150

Editorial

Welcome to IIT Patna's newsletter IMPULSE for the decennial year 2017-18. Congratulations to all those who have received awards and recognitions since the last edition of the newsletter. This newsletter is not only a showcase of the achievements of our faculty members, staffs and students but also a reflection of their constructive ideas and innovative thoughts.

On behalf of the editorial team, we thank our Hon'ble Director, Prof. Pushpak Bhattacharyya, faculty members, staffs and students for their willing support in bringing out this newsletter.

We sincerely hope this edition makes for an interesting read!

Dr. Priyanka Tripathi
Dr. Meghna Dutta

Texts in Statistical Science
Graphics for Statistics and Data Analysis with R

Theory of Point Estimation
Second Edition

Linear Programming and Network Flows

Statistical Decision Theory



Convocation 2017

The 5th Annual Convocation was held on 06th August 2017. Padma Bhushan Dr. Babasaheb Kalyani, Chairman and Managing Director of Bharat Forge was the chief guest of the function. Prof. Ajit Prasad, Director, IIM Lucknow and Prof. M.S. Vijay Kumar, Associate Dean & Senior Strategic Advisor for Digital Learning, MIT, U.S. were guests of honour. In this convocation, 28 students received their Ph.D. degree, 70 students received the M.Tech degree, and 177 students received B.Tech (CHEM- 17, CEE- 20, CSE-54, EE-40, ME- 46) degree. Various medals and awards were also given to the selected students.

Mr. Shubham from the Department of Computer Science & Engineering received the President of India Gold Medal. Ms Divya Garg received the Director's Gold Medal. Five students one each from Chemistry Department, Mr. Ashutosh Singh; Civil and Environmental Engineering Department, Mr. Juturu Ajay Reddy; Computer Science & Engineering Department, Mr. Shubham; Electrical Engineering Department, Ms. Garima Gautam, Mechanical Engineering Department, Mr. Raunak Srivastava respectively received the Institute's Silver Medals. Institute Proficiency Prizes were also given to six students one each from Chemistry, Civil and Environmental Engineering, Computer Science & Engineering, Electrical Engineering and two from Mechanical Engineering departments.

Chairman's Gold Medal was given to Mr. Tapan Sood, an M.Tech student from Mechanical Engineering branch. Institute Silver medals were given to 08 M.Tech students one each from each M.Tech branch. Shri Kedar Nath Das Memorial Award was given to Mr. Titas Nandi from the Department of Computer Science & Engineering for outstanding all round performance, excellent organizational abilities and leadership qualities in Department of Computer Science & Engineering.



Sponsored projects from January 2017 to February 2018

Sl.	Name of PI	Name of Co-PI	Dept of PI	Project Title	Dept	Agency	Year	TYPE	Sponsoring Agency	Date of commencement
1	Dr. Trishikhi Raychoudhury		CEE	Arsenic immobilization by in-situ synthesis of iron-based adsorbent under reducing environment within porous media	CEE	DST	2016-17	Sponsored	DST	05.01.2017 to 04.01.2020
2	Dr. Avik Samanta, Dr. K.K. Hussaini	NIL	Civil	Vetting of structural design and drawing of vivil structures for waterways promenade, Elevated Flyover, Community cum cultural centre and Community centre	Civil	BUIDCO	2016-17	Consultancy	Bihar Urban Infrastructure Development Corporation Ltd. Patna	10.02.17 to 10.04.17
3	Dr. Anup Kumar Keshri	N/A	MSE	Plasma Sprayed Carbon Nanotube and Graphene Reinforced Alumina Hybrid Nanocomposite Coating with Enhanced Properties for Light Metal Alloys.	MSE	ISRO	2016-17	Sponsored	ISRO	23.03.2017 to 22.03.2019
4	Dr. Chandramika Bora	Dr. Sahid Hussain (Mentor)	CHEMISTRY	Graphene/conducting polymer nanocomposite based enzymatic biosensors for the detection of biomolecules.	CHM	SERB	2016-17	Sponsored	SERB	09.02.2017 to 08.02.2019
5	Dr. Md. Lokman Hakim Choudhury	N/A	CHEMISTRY	Exploration of Multicomponent Reactions (MCRs) Towards Green Synthesis of Novel Functionalized & Sequence Regulated Macromolecules.	CHM	SERB	2016-17	Sponsored	SERB	22.03.2017 to 21.03.2020
6	Dr. Manas Kumar Sarangi	N/A	PHYSICS	Fluctuations in DNA for molecular recognition	PHYSICS	SERB	2016-17	Sponsored	SERB	24.03.2017 to 23.03.2020
7	Dr. Jobin Jose	N/A	PHYSICS	Photoionization and Electron Scattering Dynamics of Free and Confined Atomic Systems	PHYSICS	SERB	2016-17	Sponsored	SERB	27.03.2017 to 26.03.2020
8	Dr. Debashree Guha Adhya	Dr. Yogesh Mani Tripathi	Math	Development of agreegation operatus for fusion of uncertain data : special emphasis to interrelated data and information majors of uncertain data	MA	SERB	2016-17	Sponsored	SERB	30.03.2017 to 29.03.2020
9	Dr. Arijit Mondal	Dr. R. K. Behera	CSE & EE	A Software tool for planning and design of smart micro power grids(proposal id-6158)	CSE & EE	MHRD	2017-18	Sponsored	MHRD	25.03.2017
10	Dr Shovan Bhaumik	Dr. Nutan Kumar Tomar	EE	Underwater Target Motion Analysis with Passive Sensors	EE	NPOL, DRDO	2017-18	Sponsored	NPOL,DRDO	24.03.2017
11	Dr Suman Majhi	NIL	CSE	A Computational Model for 3DFluorescence Microscopy Super Resolution	CSE	SERB	2017-18	Sponsored	SERB	07.06.2017
12	Dr. Ranganathan Subramanian	NIL	CHEMISTRY	Theoretical investigation of intermolecular forces and optical properties of atmospheric aerosols	CHE	CSIR	2017-18	Sponsored	CSIR	01.05.2017
13	Dr Mayank Tiwari	Dr Akhilendra Singh	ME	Design of an integral squeeze film damper	ME	ARDB	2017-18	Sponsored	ARDB	15.07.2017
14	Dr Sudhir Kumar	NIL	EE	Cyber-Physical Systems for M-Health	EE	SERB	2017-18	Sponsored	SERB	27.07.2017
15	Dr. Mohd. Kaleem Khan	Faculty Advisor	ME	Enduro student india 2018	ME	IITP	2017-18	Sponsored	IITP	2017
16	Dr Venkat Ramanaiah Dantham	NIL	PHY	Enhancement of Raman scattering signal of single molecules using photonic nanojet mediated surface enhanced Raman scattering (SERS) technique	PHY	CSIR	2017-18	Sponsored	CSIR	08.11.2017
17	Dr Asif Ekbal	NIL	CSE	A platform for Crosslingual and Multilingual Event Monitoring in Indian languages	CSE	DeiTY	2017-18	Sponsored	DeiTY	2017
18	Dr Anup Kumar Kesari	NIL	MSE	Plasma Sprayed Carbon Nanotube reinforced Molybdenum Disulphide anti-Friction Nanocomposite Coating with enhanced mechanical and wear properties	MSE	NRB	2017-18	Sponsored	NRB	30.11.2017
19	Dr Afshan Naaz	Dr A K Thakur (Mentor)	Physics			SERB	2017-18	Sponsored		2017
20	Dr Pradeep Kumar Rai		Math				2017-18	Sponsored		2017
21	Dr Sriparna Saha Dr Asif Ekbal Prof Pushpak Bhattacharya	NIL	CSE	LG Life Assistant	CSE	LG Soft	2017-18	Sponsored	LG Soft	07.02.2018
22	Dr Sriparna Saha Dr Asif Ekbal Prof Pushpak Bhattacharya	NIL	CSE	1. Sentiment analysis based business intelligence system 2. Imagery based deep learning alorithms for real time feature analytics	CSE	SkyMap Global	2017-18	Sponsored	SkyMap Global	24.11.2017

COLLABORATIONS

MoU/LOI between IIT Patna and Foreign Universities and Organizations

National Informatics Center (NIC)

IIT Patna has signed up a Memorandum of Understanding (MoU) with National Informatics Center (NIC). This MoU was signed by Director, IIT Patna and Deputy Director General, Govt. of India, Dept. of Information Technology, National Informatics Centre, New Delhi on 02.03.2017.

The purpose of this collaboration is to undertake joint research, participation in seminars, workshops, colloquia, short term courses and other types of academic discussions, contributions to training programmes, conduct study tours, joint consultancy and research work, participation in research and internship for IIT Patna students at NIC Patna.

TUSUR University

IIT Patna has signed up a Memorandum of Understanding (MoU) with TUSUR University, with aims to promote academic cooperation and academic mobility of students, staff and researchers. This MoU was signed by Director, IIT Patna and Professor Alexander Shelupanov, Rector, TUSUR University, Toms, Russia on 02.12.2017.

The purpose of this Agreement is exchange of undergraduate and graduate students (internship or academic program), exchange of faculty and staff members, joint research and consultancy activities, participation in seminars and academic meetings, exchange of academic materials and other information and special short-term academic programs and projects.

Dublin City University (DCU)

IIT Patna has signed up a Letter of Intent (LOI) with Dublin City University, with the aim of furthering research collaboration and

student & staff exchange. This MoU was signed by Director, IIT Patna and Professor Andy Way, School of Computing, DCU on 07-12-2017.

The purpose of this collaboration is to support the future engagement of researchers associated with both institutions in order to promote cutting edge research in the areas of Machine Translation (MT), Natural Language Processing (NLP), Data Analytics and Computational Science. School of Computing, DCU recognizes the benefits to be derived from increased collaboration, cooperation and interaction for the further promotion and understanding of MT, NLP, Data Analytics and Computational Science.

University of Denver

IIT Patna has signed up a Letter of Intent (LOI) with University of Denver, with the aim of furthering research collaboration and student & staff exchange in the field of Computer Science, Electrical & Computer Engineering and Mechanical & Material Engineering. This LOI was signed by Dr. Probir Saha, Associate Dean Resource, IIT Patna and Professor JB Holston, Dean, Ritchie School, University of Denver on 20-02-2018.

The purpose of this collaboration is to support the future engagement of researchers associated with both institutions in order to promote cutting edge research in the fields of Computer Science, Electrical & Computer Engineering and Mechanical & Material Engineering. Ritchie School recognizes the benefits to be derived from increased collaboration, cooperation and interaction for further promotion and understanding of these areas of engineering.



MoU exchange between IIT Patna and National Informatics Centre on 02-03-2017.



LOI exchange between Director, IIT Patna and Professor Andy Way, School of Computing, DCU on 07-12-2017.

ACADEMIC EVENTS

Workshop on 'Advances in Physics: From Concepts to Applications'

A workshop on 'Advances in Physics: From Concepts to Applications' during July 20-21, 2017 was organized at the Department of Physics, IIT Patna.

Prof. P. K. Mukherjee, Professor, Ramakrishna Mission Vivekananda University and ex-senior Professor, Indian Association for the Cultivation of Science, Kolkata addressed the audience and gave an inspiring lecture on "Advancement in atomic and molecular structure: A chronological development". The two-day workshop ended with the valedictory function on 21st July 2017 and Prof. Dolly Sinha, Pro-VC of Patna University, became the chief guest for the event.



Workshop on "Language- Mind- Brain: Interface Studies"

A two-day workshop on "Language- Mind- Brain: Interface Studies" was organized by HSS, IIT Patna on 19- 20 August, 2017 in collaboration with School of Language and Linguistics, Jadavpur University and Central Institute of Indian Languages, Mysore. Around 50 academicians participated in the workshop from all across the country. Prof. (Retd.) R. Amritavalli (EFLU, Hyderabad), Dr. Niladri Dash (ISI Kolkata), Dr. Dipanjan Roy (National Brain Research Centre, New Delhi) and Dr. Kamal Kumar Chaudhary (IIT Ropar) were the resource persons. Dr. Sweta Sinha was the convener of this workshop.

Language-Mind-Brain: Interface Studies workshop concludes at IIT Patna

Kaushal Sinha

PATNA: Language is essential to cognition and in order to comprehend human intelligence one must understand the way brain comprehends language said Sweta Sinha, Assistant Professor, IIT Patna and the convener of the workshop while concluding a two-day workshop on "Language-Mind-Brain: Interface Studies" at IIT Patna campus here on Monday. The workshop was organized by the department of Humanities and Social Science (HSS), IIT Patna in collaboration with Jadavpur University, Kolkata and Central Institute of Indian Languages (CIIL), Mysore.

The plenary sessions were conducted by Prof. Pashpak Iltisatryya (IIT Patna) Professor and a global expert on "Natural Language Processing elaborated the technological advancements in



understanding human cognition through the medium of language. During the session (Former) Professor R. Amritavalli, English and Foreign Languages University (EFLU) Hyderabad and expert in Natural Language Processing and Language Acquisition discussed various researches and methodologies pertaining to child language acquisition and how child talk can be used to understand the cognitive process of concept

formation. Eminent academician of Linguistics Prof. K. A. Jayascelan (EFLU) Hyderabad was the chief guest for Valedictory. The Chief guest applauded the initiative by HSS department and the allied collaborators as such events prove to be important milestones in creating general awareness about something as simple as language and as intriguing as intelligence and their correlation. Other eminent academi-

cians like Niladri Dash, Indian Statistical Institute (ISI), Kolkata, Dr. Kamal Kumar Chaudhary, Indian Institute of Technology (IIT) Ropar and Dipanjan Roy, National Brain Research Centre (NBRC) New Delhi, provided useful insights into the upcoming researches in this area. More than 100 Participants across the country enthusiastically attended all the sessions which were divided into two session of explanatory and interactive.



Science Academies 93rd Refresher Course in Experimental Physics

A "Refresher Course in Experimental Physics", supported by the three Prestigious Science Academies in India, during November 07-22, 2017 was organized in the Department of Physics, IIT Patna.

Prof. C.S Sundar (IGCAR, Kalpakkam) was the Course Director and Prof. Utpal Roy, Department of Physics, IIT Patna was the Course Coordinator.



39th International Conference of the Linguistic Society of India (ICOLSI 39)

39th International Conference of the Linguistic Society of India was organized in IIT Patna from Dec. 8- 11, 2017 in collaboration with Central Institute of Indian Languages, Mysore. The conference was attended by more than hundred participants from Indian and abroad. Padmashree Prof. (Retd.) Anvita Abbi (JNU, New Delhi), Prof. P.K.S. Pandey (JNU, New Delhi), Prof. Caroline Fery (University of Frankfurt, Germany), Prof. (Retd.) K.V. Subbarao, Prof. Girish Nath Jha (JNU, New Delhi, Prof. Panchanan Mohanty (Central University of Hyderabad), Dr. Niladri Dash (ISI, Kolkata), Kalika Bali (Microsoft Research- India), Prof. Shailendra Mohan (Deccan College, Pune) and Prof. (Retd.) Shreesh Chaudhary were the invited speakers in the conference. Dr. Smriti Singh and Dr. Sweta Sinha were the conveners for this four day long academic event.



NEXUS IITP 2017

IIT Patna organized NEXUS IITP 2017 on 14th & 15th December, 2017. This program has primarily three parts – Industry-Academia summit, Alumni Meet and Startup conclave.

Dr. Prabhat Ranjan, Executive Director, TIFAC, DST India, was the Chief Guest of the program. Mr. Ravindra Prasad, Director, Department of Industries, Govt. of Bihar was the Guest of Honour. Several other dignitaries for different fields joined this program which includes Dr. Prashant Jha, Physician, Engineer, Innovator, Teacher, Editor, Entrepreneur, AIIMS New Delhi, Dr. Sukhamay Kundu, associate professor in School of Electrical Engineering and Computer Science of Louisiana State University, USA, Dr Arpan Pal, Principal Scientist and Head, Embedded Systems and Robotics, TCS Research and Innovation, Ms. Nivedita Samal, University and Industry relation program manager, GE Aviation, Mr. Shuvajyoti Ghosh, Engineering manager GE Aviation.

The Startup Conclave was organized by Incubation Centre IIT Patna on Friday, 15th Dec. 2017. The winners of MedTech Hackathon and IoT Appathon were awarded by Dr Asif Ekbal, Associate Dean R&D in the presence of Dr Probir Saha -Associate Dean Resource, Dr Jimson Mathew, Head of Computer Science Department, Dr KC Ray, founding professor in charge of Incubation Centre, Dr PKTiwari, Professor In charge of Incubation Centre and other faculty and participants.

The officials of IIT Patna has acknowledged the support it was receiving from Honorable Chief Minister Shri Nitish Kumar, Dr. S Sidhardh IAS, Principal Secretary of Dept of Industries, Shri Rahul Singh IAS, Secretary Dept of IT and other Govt of Bihar officials.



The Inaugural Ceremony of NEXUS IITP 2017



Dr. Prabhat Ranjan talked about the upcoming opportunities in the field of interdisciplinary cyber physical systems and also shared the view from technology vision 2035 of TIFAC 2017.



Alumni meet as part of NEXUS IITP 2017



A panel discussion on the topic "how to drive innovation" was held with the active involvement of Prof. Sukhamay Kundu, University of Louisiana USA, Dr Arpan Pal, Principal Scientist and Head, Embedded Systems and Robotics, TCS Research and Innovation, Ms. Nivedita Samal, University and Industry relation program manager GE Aviation, Mr. Shuvajyoti Ghosh, Engineering manager GE Aviation

One day symposium on “The Revival and the Sustenance of the Languages of Bihar”

One day symposium on the theme “The Revival and the Sustenance of the Languages of Bihar” was organized in IIT Patna by the Centre for Endangered language studies and Department of HSS on February 21, 2018 to celebrate International Mother Language Day. Around 30 participants from all across the State gathered to share their ongoing researches in language revival strategies and policies. Prof. Arun Kumar ‘Kamal’ (recipient of Sahitya Akademi Award and Former HOD, Patna University) was the chief guest for this event. The other invited speakers were Prof. Birendra Jha (Patna University) and Prof. Rajesh Ranjan (Nava Nalanda Mahavihara). The symposium was convened by Dr. Smriti Singh and Dr. Sweta Sinha.



National Science Day Celebration

One day workshop on the “National Science Day Celebration & 125th Birth Anniversary of S. N. Bose” was organized by the Department of Physics, convened by Dr. Utpal Roy, on 6th March 2018.

The inaugural session was graced by three eminent chief guests, Prof. Amitava Datta (University of Calcutta), Prof. R. K. Kotnala (NPL, Delhi), Prof. Sourabh Basu (IIT Guwahati) and Head of the Department, Dr. Utpal Roy.



(From left) Prof. Amitava Datta, Prof. R K Kotnala, Prof. Sourabh Basu, Prof. Utpal Roy





Research Scholars Day

Celebration of Research Scholars Day (RSD) is a remarkable event in the academic calendar of Indian Institute of Technology Patna where research scholars from the institute display their research work through poster and oral presentation. This year the 7th edition of RSD was celebrated on March 17, 2018. This event gives an opportunity to young researcher to communicate their work not only amongst their peers but represent it in front of the experts. In the recent years, enormous increase in the interest of research scholars towards participation dictates a promising future of research culture at IIT Patna.

This year we witnessed eminent personalities like Prof Sudhakar Rao, Chairman Department of Civil engineering IISc Bangalore as chief guest; Prof Pratap Raychaudhuri (Shanti Swarup Bhatnagar Awardee & Professor Department of Condensed Matter Physics TIFR Mumabi) as guest of honor and Prof Shankar Ashish Dutt (Professor, Department of English Patna University) as our special guest.

There were total 110 participants in three minutes and poster presentation competition. In the three minutes presentation, there were 24 participants from the ten departments and among them Mr. Durga Prasad Ghosh (ME) and Ms. Sonam Kumari (CH) were awarded first best presentation award, Mr. Rakesh Palisetty (EE): 2nd and Mr. Kumar Nishant Ranjan Sinha (ME) got the third prize.

Among the 102 poster presentation from ten departments, the department wise winners are as follows: Rakesh Kumar Sinha (CBE), Kumari Sweta (CE), Yogesh Jaiswal (CH), KM Pooja (CSE), Rahul Gupta (EE), Mamta Kumari (HSS), Anshika Srivastava (MA) Ashu garg (ME) and Nilanjan Kundu (PHY).

Organizing Committee:

Prof Pushpak Bhattacharyya (Patron), Dr. Ajay D Thakur (Convener), Dr. Meghna Dutta (Member), Dr. R.K. Bag (Member), Mr. Ashutosh Kumar (PG Representative)



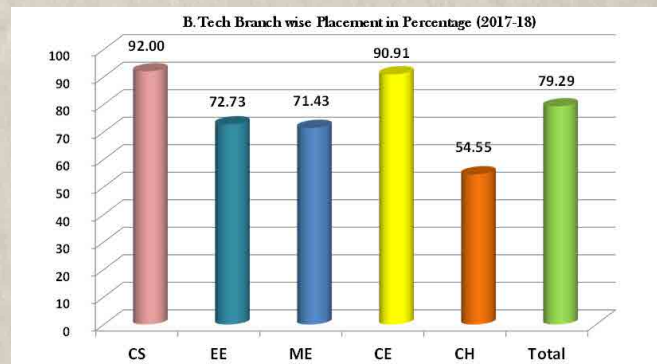
PROUD MOMENTS OF IIT PATNA

- IIT Patna has been placed 108th in QS University Rankings: BRICS. This is the first time IIT Patna has entered a QS ranked list.
- Prof. Pushpak Bhattacharyya listed among top NLP/ML researchers: 2012-2017. The following analysis (3rd graph) <http://www.marekrei.com/blog/ml-nlp-publications-in-2017/> places Prof. Bhattacharyya amongst the top prolific researchers in Natural Language Processing and Machine Learning in the period 2012-17
- Interesting research works on Computational Sarcasm by Prof. P. Bhattacharyya, Director, and his team has been reported in The Times, London Edition on 19th September, 2017. <https://www.thetimes.co.uk/article/ai-can-struggle-to-detect-sarcasm-vprkpdfxl>
- Dr. Maheshkumar H. Kolekar received DAAD fellowship from May 1, 2017 to July 31, 2017 to visit TU Berlin Germany under faculty exchange programme
- Dr. Maheshkumar H. Kolekar received best paper award during International Conference on SYMHEALTH 2017 held at Pune during May 3-5, 2017 for his paper, "EEG based Epileptic Seizure Detection using Empirical Mode Decomposition and Hidden Markov Model"
- Dr. Suman Kumar Maji has been awarded the SERB Early Career Research Award in 2017.
- Dr. Sweta Sinha was awarded the 'Certificate for Best Paper Presentation' in the International Conference on Linguistics and Phonology (ICLP 19) organized by World Academy of Science Education and Technology from 30- 31 August 2017 in Bangkok, Thailand
- Marquis Who's Who has selected Dr. Sanjoy Kumar Parida, Dr. Saurabh Pandey and Vinay Trivedi for Albert Nelson Marquis Lifetime Achievement Award
- Team ButterRoti, comprising Bhavit Sharma, Prateek Karnal and Shaurya Gupta is amongst the eight Indian teams to have qualified for ACM-ICPC World Finals 2018, Beijing, China.
- Mr. Akash Arya won the MERIT PRIZE for oral presentation at the conference on Advances in Spectroscopic Techniques and Materials (ASTM-2018) held at IIT (ISM), Dhanbad
- IIT Patna stood 8th in Inter IIT Tech Meet 2017.
- Ms. Srishti and Dr. Papia Raj: Best E-poster award for the paper titled "Exploring the Potential of Health Informatics as an approach for Improving Maternal Health" in the session on "Information Technology, E-learning & Social Issues in Public Health" at the 61st Annual National Conference of Indian Public Health Association (IPHA) organized by the Department of Community Medicine and Family Medicine, All India Institute of Medical Sciences (AIIMS) Jodhpur (Rajasthan).

TRAINING AND PLACEMENT – 2017 – 18

The response from industry has been overwhelming in 2017-18 placement season. Nearly 80 % of the IIT Patna students are already placed in the campus placement. More than 70 companies have visited campus. This year placement season also saw a hike in the number of core companies visiting the campus. More than 145 job offers were made to the students with the profiles of software engineer, product manager, research engineer, associate consultant, analyst and scientist among others.

The highest package of 39.23 Lakhs per annum was offered by Adobe to one of the students. Similarly, DE Shaw offered 29.5 Lakhs to two students and Amazon has offered 27.6 Lakhs to five students. Apart from this, students received tempting offers from Microsoft, Samsung, Mathworks, Directi, Deloitte, Future First, Arista Network, Cognum, Sigmoid, L&TECC, Oyo Rooms, Infosys, Mediatek, Siemens, Volvo Eicher, Smartprix, Finisar, Tejas Network, Cognizant, TCS Research, Capgemini, TVS Motors, Tata Motors and many more. Among the PSUs, the likes of ISRO and IOCL have visited the campus and offered jobs to the students. Many of these companies have also offered internship offers to pre-final year students. The average package so far has been nearly 11 Lakhs.



INSTITUTE COLLOQUIUM

Institute Colloquium on Nobel Prizes – 2017

A series of Nobel Prize Lectures were organized at IIT Patna

1. Nobel prize in Literature – 2017: (Kazuo Ishiguro who, in novels of great emotional force, has uncovered the abyss beneath our illusory sense of connection with the world) by Dr. Smriti Singh
2. Nobel prize in Medicine - 2017: (Jeffrey C. Hall, Michael Rosbash and Michael W. Young for their discoveries of molecular mechanisms controlling the circadian rhythm) by Dr. Prolay Das
3. Nobel prize in Physics – 2017: (Rainer Weiss, Barry C. Barish and Kip S. Thorne for decisive contributions to the LIGO detector and the observation of gravitational waves) by Dr. Ajay D. Thakur
4. Nobel prize in Peace - 2017: (International Campaign to Abolish Nuclear Weapons (ICAN) for its work to draw attention

to the catastrophic humanitarian consequences of any use of nuclear weapons and for its ground-breaking efforts to achieve a treaty-based prohibition of such weapons) by Dr. Aditya Raj

5. Nobel prize in Chemistry - 2017: (Jacques Dubochet, Joachim Frank and Richard Henderson “for developing cryo-electron microscopy for the high-resolution structure determination of biomolecules in solution) by Dr. Sahid Hussain
6. Nobel prize in Economics - 2017: (Richard H. Thaler, for his contributions to behavioural economics) by Dr. Nalin Bharti

Institute Lecture

Dr. Pranava C. Deshmukh, Professor of Physics, Indian Institute of Technology Tirupati, “Complex behavior of simple systems - Rudiments of chaos theory”, Apr. 7, 2017

Events – Cultural / Technical and Sports

CULTURAL EVENTS, IIT PATNA

NEBULA

Nebula welcomes the freshmen into the college. Nebula puts forth an unparalleled multitude of events, meticulously fashioned to suit the interests of band geeks, music and dance maniacs. The cultural delight of the fest, pro-night share the glamour of the Mr. & Miss Nebula competition, serenity of classical art forms and amusement of comedy shows. It is celebrated every year on 12th of August.



Independence Day Celebration

The Independence Day Celebrations started with the flag hoisting ceremony by Honorable Director of IIT Patna, Prof. Pushpak Bhattacharyya. The intellectual minds performed many cultural activities, which created an atmosphere of national pride in the institute premises.



Republic Day Celebration

IIT Patna celebrated Republic Day with great zeal and passion. After the flag hoisting ceremony and the address by Honorable Director Sir, the students presented a multitude of cultural events.



AABHAR (TEACHER'S DAY)

Aabhar'17, Teacher's day was celebrated with great enthusiasm and zeal. Teachers got to know how much they are liked and appreciated by the students. Special motivation speeches were also given by honourable teachers to the student community.



REVERBERANCE

Reverberance is the cultural event of two days including many cultural Inter-year competitions. Competitions are the core of any fest and Reverberance is no different.

The Inter-Year Cultural Competitions at Reverberance have been a bastion of opportunities to showcase the talent in any genre of cultural proficiency. Covering the genres of Dance, Dramatics,

Design and Gaming, Fine Arts and Music, we at Reverberance have something for everyone.

SAADHANA

Saadhana, a devotional and cultural event to commemorate the contribution of Mahatma Gandhi and Lal Bahadur Shastri, was organized on October 24, 2017, and was a great success. HoSCA organized SPICMACAY where esteemed artists performed.



UNITY WEEK

IIT Patna celebrated Ekta Divas (National Unity Day) in order to extend their heartfelt appreciation about the life and the involvement of the great leader, Sardar Patel. Events like Slogan writing competition on the theme of National Integrity, Essay writing on the theme "Relevance and Importance of Sardar Patel in today's India, Elocution based on Sardar Patel and Unity day, T-shirt designing competition and movie screening of Sardar were organized. Students participated enthusiastically in all the events.

ANWESHA 2018

Anwasha the splendid platform which brings together the reigning talents of today's youth such as dance, drama, music, technical, literary, fine arts to name a few, together with a social

appeal defines the meaning which 'Anwasha' holds. A perfect blend of ecstasy and expression, of energy and excitement, the three-days fest concluded with its eighth edition this January end and we must say, it was one serious affair of talent, passion, and celebration.

At least 1,500 students from various colleges and institutes, including St Xavier's College-Patna, NIT-Patna, NSIT-Patna, NIFT-Patna, Patna Women's College, Patna College, BIT (Mesra)-Patna, Bakhtipur Engineering College, International Institute of Information Technology-Allahabad, IIT-BHU and K K Roy Institute-Dhanbad, participated in the fest.

The fest concluded with enthralling performances by 'Naalaayak' and 'Chaar Hazaari' bands. The prizes and certificates were distributed by IIT-P registrar Vishwa Ranjan and associate dean of students' affair Akhilendra Singh.



TECHNICAL EVENTS

CELESTA

The academic year 2017-2018 stands a testimony to a number of advancements that the various technical departments of IIT Patna have accomplished. We have been reaching new heights year after year and this year again we ensured to live upto the expectations of a billion eyes. The year kick-started with an amazing Celesta-the annual techno-cultural fiesta of IIT Patna. With the fest going inter-college, it definitely promised an increased footfall like never before and we did witness enormous participation in the diversified competitions held by the various clubs (around 500 external participants). In the following week, we also organised two workshops catering to Machine Learning and Ethical Hacking which holistically attracted a crowd of around 200 candidates from the various colleges of Patna.



The NJACK Club conducted plethora of classes through the various subdivisions that the club has. The classes covered web

and app development, competitive programming, Linux and various sessions on open source. Also, in December the club organised NWOC (NJACK Winter of Code) wherein the student had to contribute to various open source projects while being mentored by the project owners. Again the participation was not just limited to the students of IIT Patna but the people beyond the boundaries of the college participated too, both as project mentors and contributors. The college performed exceptionally well in competitive programming with the team "BUTTER ROTI", qualifying for the world finals and will be visiting Beijing, China for the world finals too.

The Chem E Car-a model bot which runs without any external power source and stops in given time. So far the project has seen commendable progress and they have generated voltage with the temperature difference between ice and hot water with the help of TEG (thermoelastogram). Currently the team of 7 members is working on an iodine clock stopping mechanism with the help of photoresistor and arduino. This project is jointly running under the Threshold Club and the Tinkerer's Lab, IIT Patna.

Inter-IIT Tech Meet

In the wake of January, 2018 a contingent of 14 members participated in the 6th Inter-IIT Tech Meet and grabbed an overall 8th spot among a participants of 19 IITs in all. Most importantly we had far left behind all the other new IITs that got established with us! We also lived up to witness the fact that we actually beat the older IITs in two events bagging a silver and a bronze respectively in two separate events at the tech meet.

Human Powered Vehicle (HPV)

Team Alacrity at IIT Patna is dedicated to the cause of developing highly engineered and innovative Human Powered Vehicles which can be used for everyday transportation.

In 2017, the team developed an HPV named Alacrity which participated in ASME Human Powered Vehicle Challenge (HPVC) held at LNMIIT, Jaipur from 3rd-5th March 2017 and secured an overall third rank at the event. It is a light weight, efficient, dexterous vehicle which can safely and effectively be used for everyday transportation.



Team INVINCIBLES IITP

In 2018, under the mentorship of Dr. Mohd. Kaleem Khan and Dr. Manabendra Pathak, Team INVINCIBLES IITP, a group of 30 enthusiastic members was led by Mr. Abhimanyu Singh Rathore to take up the task of designing and fabrication of an All Terrain Vehicle (ATV). The team participated in various national level competitions and bagged 2nd position in rule quiz, 6th in the Endurance Race and 7th in Cost Event of Enduro Student India 2018.



SPORTS ACTIVITIES

INTER IIT TOURNAMENT

IIT Patna participated in Inter IIT Tournament held in IIT Madras. Our Football team qualified for quarters final for the first time. We got overall second position in vibe board made by IIT Madras.



MARATHON

A marathon was organised, in which there were participants from the whole college along with faculty members. We gathered to participate and to spread a message for a cause.

STUDENTS - CORNER

The Woman

The darkness was slowly creeping in,
Bringing some untold fears within.
The woman woke up with a startle,
Her dream made her mind boggle.

Out of the window she looked at the deserted land,
Alone in the room she lay waiting, the clock at distance
trickled sand. The clatter of pans, the breaking of fire,
Called for a helping hand against her desire.

But there was something ringing in her mind,
Some questions left unanswered to find.
Did she see a ghost or a beast in her dream?
Or she met with an accident with no one to
hear her scream.

No, all of this would have scared her for a while,
These childish fears she would have dealt with a smile.
She closed her eyes to find a way through the dark
maze,
Recalling the picture cleared as fog lifted from haze.

On a warm afternoon she was happily
flying in the vast sky,
With wings on her back she soared really high.
Undeterred by strong winds or shadow of cloud,
She glided in the air bold and loud.

But suddenly, before she could duck,
She got caught in a web, her wings stuck.
As she shook with every try, Her wings frayed,
wearing off by.
And then came a strong blow, Her
wings came off and she fell low.
With the pain there was a deafening scream,
And that was when she woke from her dream.

Her mind was now crystal clear'
It was not the imaginary that we did fear.
But the beast that grew amongst we people,
Curtailed and controlled our thoughts, making us
feeble.

As the last ray of sun kissed her forehead,
She set her mind, not uncertain determined instead.
From the corner she pulled out her books,
covered with dust,
Cleaned it as her eyes gleamed with lust.

Unheeded to the cries and angry calls from inside,
With a lantern lighting her path she stepped outside.
All her belongings packed she left to start a
journey new, Breaking all ties to a world with
barriers few, All fears all attachments she cast aside,
She moved ahead confidently, God her aide.

Zufishan

M.Tech. - Communication Systems Engineering

मंथन

कोहरे में सिमटी धूल में लिपटी
सन्नाटों में है वो विराजमान
कहाँ है मेरी पहचान?

पिछली बारिश में देखा उसे भीगते हुए
खिलखिलाते हुए महकते हुए।
सावन तो इस बार भी बरसे हैं
पर हम हर बूँद को तरसे हैं।

खो गयी है अब वो मुस्कान
कहाँ है मेरी पहचान?

हर प्रत्युष यह एहसास दिलाता
समय से पहले और भाग्य से ज्यादा
कोई मनुष्य नहीं है पाता
तो तू कौन सा अपवाद है ?
तेरे हृदय में तो न प्रीत है न प्यास है।

सुन अपने हृदय से आती उस आवाज़ को
सरिता के सागर से मिलने की प्यास को
और कर संकल्प हिमालय को पिघलाने का
अपने पंखी को क्षितिज से मिलाने का।।

विजयी है वही जिसने आत्म को पहचाना है
ज्ञान को तलाशा है और भय को त्यागा है
फल को छोड़ केवल निरंतर कर्म को साधा है।।

अंकुर "बनारसी"

Ankur Pandey

M.Tech. - Communication Systems Engineering





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