

षष्ठम दीक्षांत समारोह
Sixth Convocation

Wednesday, May 16, 2018

निदेशक प्रतिवेदन

प्रोफ़ेसर विनोद के. सिंह

Director's Report

PROFESSOR VINOD K. SINGH



It is my privilege to welcome you all to the sixth convocation of IISER Bhopal. Shri Jamshyd N Godrej, Chairperson, Board of Godrej & Boyce Manufacturing Company Ltd., is with us today to bless our graduands.

You all are aware that IISER Bhopal is completing a decade of its journey since its inception in the year 2008. In the current academic year, we have a combined strength of about 1351 students in BS-MS, Ph.D and Integrated Ph.D programmes pursuing their studies in various branches of science. We are proud to make special mention that more than 30% of the student population is female.

So far, a total of 402 students have graduated from IISER Bhopal and all of them have been well placed in different corners of the world, bringing glories to the Institute. It is the result of the hard work put together by the students and our team of Faculty members. Our Institute is continuously rising in various parameters of science and research, duly making a mark in the international platform. The Institute has been ranked 56 in the overall ranking of NIRF survey conducted by the Govt. of India for the year 2017-18.

This year 130 BS-MS (Dual Degree), 1 BS Degree, 21 MS Degrees and 39 Ph.D. degrees are being awarded by the Institute and I extend my heartiest congratulations to all graduands. Now, it's a pleasure for me to present a brief report on the activities and achievements of the Institute during the year 2017-2018.

ACADEMIC ACTIVITIES

At IISER Bhopal, it is our constant endeavour to refine and introduce appropriate programmes in a variety of disciplines in order to prepare our graduates for careers in research, academia, and industry.

Presently, the Institute is running the following programmes:

- Bachelor of Science-Master of Science, BS-MS (Dual Degree) programme in Biological Sciences, Chemical Engineering, Chemistry, Earth and Environmental Sciences, Electrical Engineering & Computer Science, Mathematics and Physics.
- Integrated Ph.D. programme in the Departments of Chemistry, Mathematics and Physics.
- Ph.D. programme in the Departments of Biological Sciences, Chemical Engineering, Chemistry, Earth and Environmental Sciences, Electrical Engineering and Computer Science, Humanities and Social Sciences, Mathematics and Physics.

The total number of students enrolled in Academic Year 2017-2018 was 1351, of which, nearly 30% are post-graduate students.

The detailed break up is as under:

Five year BS-MS (Dual Degree) Programme:

Total Strength 968

Batch	BIO	CHM	EES	MTH	PHY	NA	Total
2012 Batch	2	1	-	1	-	-	4
2013 Batch	36	55	2	11	34	-	138
2014 Batch	35	35	21	16	54	10	171
2015 Batch	43	43	18	12	54	13	183
2016 Batch	-	-	-	-	-	179	179
2017 Batch	-	-	-	-	-	293	293

Integrated Ph.D. Programme:

Total Strength 64

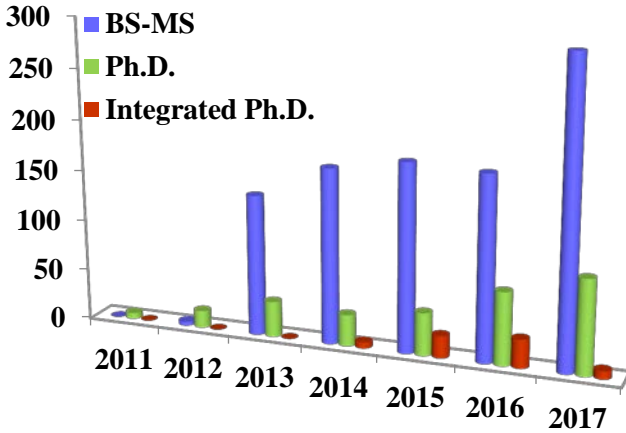
Batch	CHM	MTH	PHY	Total
2014 Batch	-	2	4	6
2015 Batch	9	7	6	22
2016 Batch	12	5	11	28
2017 Batch	3	2	3	8

Ph.D. Programme:

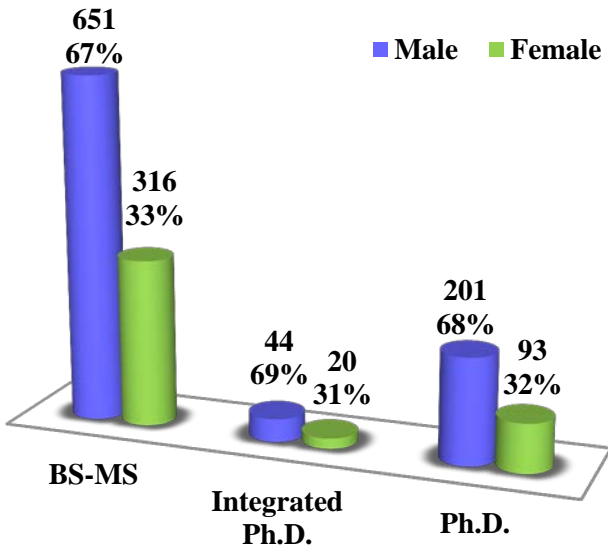
Total Strength 319

Batch	BIO	CHE	CHM	EES	EECS	HSS	MTH	PHY	Total
2009 Batch	1	-	-	-	-	-	-	-	1
2011 Batch	5	-	2	-	-	-	-	2	9
2012 Batch	8	-	19	1	-	-	-	3	31
2013 Batch	10	-	20	1	-	-	-	6	37
2014 Batch	18	-	5	1	-	-	-	7	31
2015 Batch	18	-	16	1	-	-	2	5	42
2016 Batch	17	1	35	4	1	-	3	11	72
2017 Batch	22	3	38	14	-	1	3	15	96

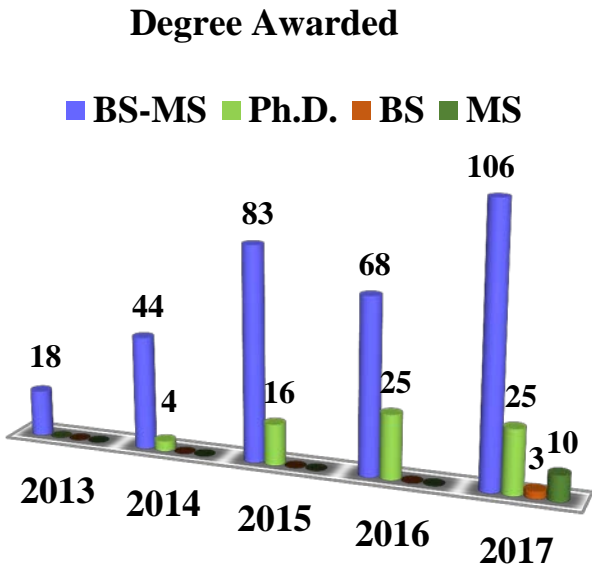
Registered Students as on May 5, 2018



Gender-wise Distribution as on May 5, 2018



The break-up of the degrees awarded during the last five convocations are outlined in the following graph:



During academic session (2017-2018), which commenced from August 2017, 375 students were admitted in various programmes across all the Departments. Another set of 34 students were admitted in Ph.D. in January 2018, thereby making a total of 409 students for the Academic Year 2017-2018.

Today, 191 students, who have successfully completed their programmes will receive their degrees in the following disciplines/program:

BS

Total	Mathematics
1	1

BS-MS (Dual Degree)

Total	Biological Sciences	Chemistry	Mathematics	Physics
130	35	54	11	30

MS

Total	Chemistry	Mathematics	Physics
21	9	6	6

Ph.D

Total	Biological Sciences	Chemistry	Physics
39	7	28	4

INSTITUTE-LEVEL ACADEMIC ACTIVITIES

In order to promote and popularize science education amongst youth, the Center for Outreach Programs in Education (COPE) carried out the following academic activities:

(A) Outreach Program

The Outreach Program is our in-house program conducted every year during summer, to make science interesting and opening venues for bright young students of classes IX, X and XI studying anywhere in India. They get exposure to the state-of-the-art laboratories and hands on experience in working therein. Stimulating lectures by faculty members and a visit to the Science Museum are alternative strategies to interest students further. During the year 2017, 116 students participated in the Outreach Program scheduled from May 15 - 19, 2017 and for the

current year 2018, 105 students have been shortlisted for the program to be held from May 07 - 12, 2018.

(B) Rashtriya Avishkar Abhiyan

Rashtriya Avishkar Abhiyan (RAA) is an initiative taken by MHRD to nurture a spirit of enquiry and creativity for school children in State Government Schools. RAA also aims to mentor teachers and improving school infrastructural facilities. Under this flagship scheme, five schools have been assigned by MHRD to IISER Bhopal for mentoring (two schools in a nearby village Bhauri, two in Bakaniya and one in Jamuniya cheer).

- Students from the BS-MS (Dual Degree) Program volunteer to visit these schools every Saturday and conduct classes in Science and Mathematics.
- RAA conducted a one-day Science workshop at IISER Bhopal for the students studying in classes X and XII from nearby villages on October 28, 2017. There were 50 participants accompanied by two teachers. There were 3 student lectures to spread awareness about nutrition, health and hygiene. The participants were given a tour of the laboratories where various experiments were demonstrated besides providing lunch and transportation facilities. Books related to hygiene and general Science question and answers were distributed to them.
- Dr. Madhumita Mukherjee, Nodal Officer, RAA received a grant of Rs. 4 lakhs from the Department of Biotechnology, Govt. of India under the Citizen Science Endeavour, for a proposal to use "Foldscopes" (paper origami microscopes) as tools to be used to teach students in these State Government schools.

Other Outreach Programs:

- COPE organized a 2-day Outreach Program for 34 participants (4th year students of an Integrated MSc Program) from Pt. Ravishankar Shukla University, Raipur from March 26-27, 2018. Besides stimulating lectures and interactive sessions, there were visits to the Departmental labs, Central Instrumentation Facility, Library and Computer Center.
- A one-day Outreach Program was conducted on December 15, 2017 for 144 students from Kamla Devi Public School, Bhopal. A talk giving a general overview of IISER Bhopal along with the admission procedure in IISERs was held.

CONFERENCES/ WORKSHOPS/ SCHOOLS/ SEMINARS

Various conferences, seminars, workshops and schools were organised by the Departments of the Institute during the year. A few of them are outlined below:

- **The Global Initiative of Academic Network (GIAN) Programme:** A National level Immunology course entitled "Molecular Dissection of Host-Pathogen Interaction: The Basic and Translational Immunology" was organized at IISER Bhopal with the support of MHRD under the "Global Initiative of Academic Network (GIAN) scheme from February 17-28, 2018. This course attracted many enthusiastic candidates across the country. This was successfully conducted by the course coordinator Dr. Himanshu Kumar, Principal Investigator at Laboratory of Immunology and Infectious Disease Biology, Associate Professor at Department of Biological Sciences and his team at IISER Bhopal. This course was jointly taught by Dr. Himanshu Kumar and the foreign faculty member Prof. Akinori Takaoka, Principal Investigator at Division of Signaling in Cancer and Immunology, Professor at Institute for Genetic Medicine, Hokkaido University, Japan.

- **2nd NTU-IISER Bhopal Chemistry Workshop:** The 2nd NTU-IISER Bhopal Chemistry Workshop on Synthetic and Materials Chemistry was organized during January 04-06, 2018 at IISER Bhopal. This Workshop was intended to discuss the recent advances in Chemistry research spanning over some of the niche areas under a single platform. The topics were designed to include a wide spectrum of subjects involving both fundamental aspects as well as applications of the research. The Workshop hosted several participants from the Nanyang Technical University, Singapore along with eminent scientists from India. Besides stimulating scientific lectures, there were poster sessions for two days where the students of the Department of Chemistry, IISER Bhopal showcased their present research.

- **National Conference on Electronic Structure (NCES) 2017:** Department of Physics 3rd National Conference on Electronic Structure during December 26-28, 2017. The conference was attended by about 75 participants that included researchers from across the country working in the area of photoelectron spectroscopy and allied areas.

- **Workshop in High Energy Physics Phenomenology (WHEPP):** The Department of Physics had organized Workshop in High Energy Physics Phenomenology (WHEPP) from December 14-23, 2017. The Workshop in High Energy Physics Phenomenology (WHEPP) is a series of international workshops on Particle Physics, with the main focus being on particle physics phenomenology and its relation to both formal theory and experiment. They are held in every alternate year and constitute the most important international event in particle physics phenomenology which is held regularly in India. The activities of this workshop cover almost entire area of particle physics dividing into various working groups according to topics.

- **The 3rd Indian Drosophila Research Conference-2017 (InDRC):** With an active involvement of Dr. Vimlesh Kumar and Dr. Varun Chaudhary from the Department of Biological Sciences, IISER Bhopal "Third Biennial Indian Drosophila Research Conference (3rd InDRC) and workshops on live-imaging and electrophysiology" was organized at IISER Bhopal from December 5-9, 2017.
- **IWM: Regional Workshop on Career & Opportunities:** This workshop was held during October 7-8, 2017 at IISER Bhopal. It was a one-and-a-half day workshop that was open to all post-graduate students, Ph.D scholars, research fellows and college/university faculty members primarily working in various areas of mathematics. There was a special focus however on women participants. The aim was to encourage and support large-scale participation from women, and to provide an exposure to research and a platform to discuss career opportunities in mathematics.
- **XVIII-NOST-OCC Conference 2017:** The XVIII-NOST-OCC Conference 2017 was held at IISER Bhopal during August 24-26, 2017. At the conference, Faculty members from Global Institutes and IISERs along with Postdocs/ Ph.D students participated in the Conference. In addition to this, students actively participated in the poster presentation.
- **Science Academies' Refresher Course on Partial Differential Equations and their Applications (PDEA-2017):** Differential Equations is a basic topic of research and teaching in mathematics. The abstract theory behind this topic is also most important from the point of view of applications in a large number of areas of mathematics itself and, of course, in science and engineering. A few examples are geometry (including differential geometry), economics, hydrodynamics, elasticity, general relativity, geometric flows, biology etc. There are a few excellent research groups in India, especially in partial differential equations (PDE),

but these are located in a very small number of central institutes and the manpower available for teaching this topic in universities, and colleges are too small. The purpose of this course was to provide an excellent opportunity to young teachers and researchers from various educational institutions of the country to interact and learn important topics on PDEs and its applications from some of the experts of this subject.

- **Science Academies' Lecture Workshop on "Geometry and Topology"**: The purpose of this two-day workshop is to provide an opportunity to young teachers, researchers and students of Mathematics to learn about important topics in Geometry, Topology and their applications from active researchers and experts.
- **Workshop on Regional Earth System Modelling**: The Department of Earth and Environmental Science organized a workshop on 'Regional Earth System Modelling' from December 14-21, 2017 conducted by Dr. Dmitri Sein, AWI, Germany.

ACADEMIC INFRASTRUCTURE DEVELOPMENT

Instrumentation Facilities

The Central Instrumentation Facility CIF and Departmental research facilities are equipped with the most sophisticated and state-of-the-art equipment which are fully functional. Depending on the requirements, both teaching and research, the existing infrastructural facilities are improved on a regular basis and a number of new equipments have been installed as a part of Departmental research facilities and/or CIF.

Some of the major research equipments and facilities acquired by the Institute during 2017-18 are:

- High Content Imaging and Analysis Platform (HCS), Rs. 99.85 Lakhs (Department of Biological Sciences)
- Nikon Laser Based Total Internal Reflection Fluorescence Microscope (TIRF), Rs. 103.47 Lakhs (Department of Biological Sciences)
- LED Plant Growth Chamber, Rs. 23.87 Lakhs (Department of Biological Sciences)
- Gas Chromatograph and Mass Spectrometer (GC-MS), Rs. 46.37 Lakhs (Department of Biological Sciences)
- Micromanipulator Setup for Step Injection, Rs. 16.22 Lakhs (Department of Biological Sciences)
- Hybrid Multimode Microplate Reader, Rs. 49.65 Lakhs (Department of Biological Sciences)
- Wire Bonder, USD 26999, Approx. Rs. 18 Lakhs (Department of Physics)
- Femtosecond laser - 35fs pulse duration, 5kHz, 8Watt system, Rs. 180 lakhs (Department of Physics)
- Turbomolecular pumps, Rs. 45 lakhs (Department of Physics)
- Optomechanics, Rs. 18 lakhs (Department of Physics)
- Reflected Light provisions in Petrological Microscopes Rs. 12 lakhs (Department of Earth and Environmental Sciences)
- Quaternary Gradient Ion Chromatography System, USD 50,000 (Department of Earth and Environmental Sciences)

Central Library

The Central Library is a vibrant nexus, connecting collections, ideas, spaces, and intellectual capital of the institute. It is regarded as the heart of our institute to fulfil the academic needs of the users mainly towards the completion of their academic programmes as well as the research activities.

At present, the library is catering to the needs of more than fifteen hundred undergraduates, postgraduates, research scholars, faculty members and staff members of the institute. The Library has an excellent print collection of about 10,000 books, which can be viewed by using the Library Online catalogue. The Library is fully automated and RFID application has been successfully implemented. Through this, all bonafide members can carry out the Self-Check-in, Self-Check-out and Self-Renewal of books from the Library.

The Library offers services as Lending facility, Claims/Reservations, Renewals, Reading Room, Inter Library Loan, Document Delivery Services, SDI/CAS Services, Library website, Reprography Services, Orientation Programme, Remote Login Access, Grammarly software, Anti plagiarism software, Institutional Digital Repository, Web of Science (citation database), SciFinder, etc. In addition, being a core member to e-Shodh Sindhu (e-SS) consortium, presently, the Institute subscribes to more than 1500 e-journals and 10 databases across all academic disciplines. Institutional Digital Repository (IDR) has been set-up to host full-text of research publications of Faculty and researchers of IISER Bhopal. IDR provides a platform for Faculty and researchers to deposit, reuse and share their research publications. Besides, the regular support to the users, Library has also organized few 'Author workshop' to motivate researchers to publish research articles in reputed journals. Facilities like Discussion room, Browsing area, Reading zone, Photocopy and e-Library are also made available to the users. The Library is actively involved in different

activities of the National Digital Library project of MHRD under NME-ICT.

A three days National Conference on Role of Academic Libraries for Excellence in Research (ROALER) 2018 was also organized by Library during 18-20 January, 2018. The backdrop of the conference was to come up with a wider view that Academic Libraries can play a key role in achieving the excellence in Research and Learning. Around 160 participants from various parts of country and different institutions like IITs, NITs, IISERs, IIMs, IITs, CSIRs, etc. participated in ROALER 2018.

Centre for Archives and Digitization (CAD)

The Institute, in tune with the Government of India Digitization initiatives, created a Centre for Archives and Digitization (CAD) under Institute's Digital Initiatives Project (DIP). Accordingly, Ms. Ruchi Srivastava, Assistant Librarian is appointed as the Custodian-in-charge, CAD who shall be directly responsible for implementation of Institute's Digital Initiatives Project (DIP), duly reporting to the Dean, Academic Affairs in the capacity of Chairperson, Library Management and Advisory Committee. Ms. Ruchi Srivastava is also nominated as Nodal Officer of the Institute for various MHRD portals like NAD, AISHE and Sodhganga.

RESEARCH AND DEVELOPMENT

The research in this Institute aims toward exploring new fields and generating innovative ideas using young and bright minds in order to contribute to the development of the society and the growth of the industry. The Institute benefits tremendously from such research activities that not only address the current problems in the society but also aim towards the development of new technologies.

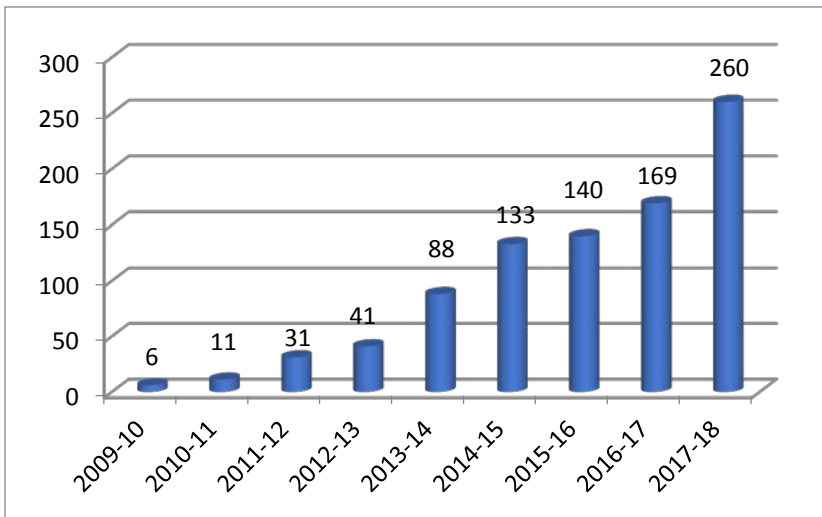
The Research and Development at IISER Bhopal has shown a phenomenal growth from R&D Projects sanctioned worth Rs.16.5 lakhs in 2009 -10 to Rs. 1814.30 lakhs in FY 2017-18. The Institute has so far received more than 269 different research projects including Young Faculty Fellowship Programmes and MHRD projects, sponsored by various governmental and non-governmental agencies with a financial outlay of about Rs. 113.63 crores. The table depicted below provides a summary of the Research and Development Projects with details of funding agencies supporting R&D activities, and the distribution of Young Faculty Fellowship Programmes. The main research findings arising from these projects are regularly published in internationally reputed and peer reviewed journals.

S. No.	Particular	Financial Year	Total No. of Projects	Total Value of Projects Sanctioned (Amount in Rs.)
A	Research & Development Projects	FY 2009 - 10	01	16,48,000
		FY 2010 - 11	16	4,31,11,210
		FY 2011 - 12	12	3,09,63,927
		FY 2012 - 13	20	6,20,84,824
		FY 2013 - 14	06	1,52,92,200
		FY 2014 - 15	12	6,04,01,170
		FY 2015 - 16	23	6,95,81,955
		FY 2016 - 17	39	24,75,81,372
		FY 2017- 18	40	18,09,87,911
Total			169	71,16,52,569
B	Consultancy Projects	FY 2016 - 17	4	1,42,01,009
		FY 2017 - 18	1	4,42,500
Total			5	1,46,43,509
C	Young Faculty Fellowship Programmes	FY 2010 - 11	02	1,43,00,000
		FY 2011-12	03	2,19,00,000
		FY 2012 -13	01	35,00,000
		FY 2013 - 14	07	4,67,97,832
		FY 2014 - 15	05	4,34,09,709
		FY 2015 - 16	05	2,79,94,141
		FY 2016 - 17	19	5,06,92,499
FY 2017 - 18	21	3,86,20,000		
Total			63	24,72,14,181

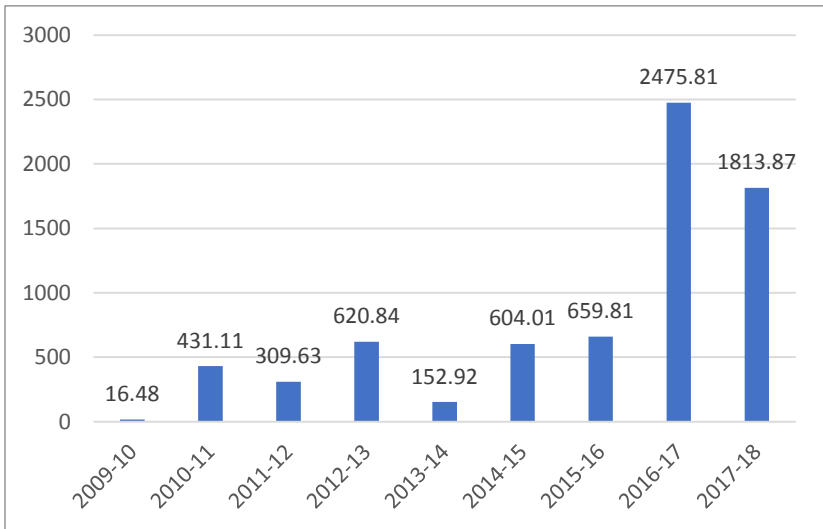
D	DST Projects - FIST	FY 2015 – 16	02	7,78,00,000
		FY 2016 – 17	01	1,98,00,000
Total			03	9,76,00,000
E	MHRD Projects	FY 2014 – 15	01	1,50,00,000
		FY 2015 – 16	01	3,25,00,000
		FY 2016 – 17	05	34,39,000
		FY 2017 - 18	01	8,16,000
Total			08	5,17,55,000
F	Travel Grant	FY 2016 – 17	1	6,07,500
		FY 2017 - 18	3	3,49,265
Total			04	9,56,765
G	Seminar/ Conference/ Workshop	FY 2015 - 16	02	2,00,000
		FY 2016 - 17	03	27,41,000
		FY 2017 - 18	12	95,89,866
Total			17	1,25,30,866
Grand Total (A+B+C+D+E+F+G)			269	1,13,63,52,890

The graphical representation below depicts the number of projects sanctioned over the years and the value of funding received:

Total Number of New Projects Sanctioned



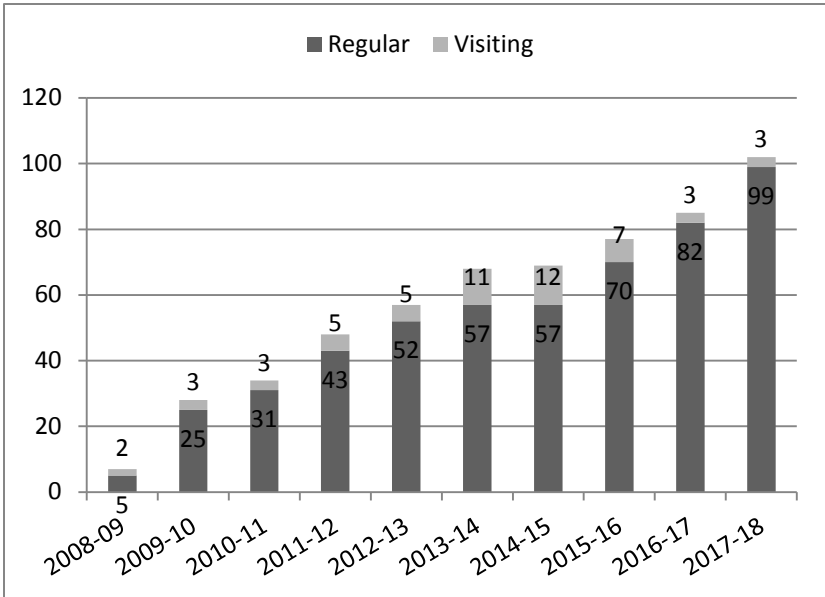
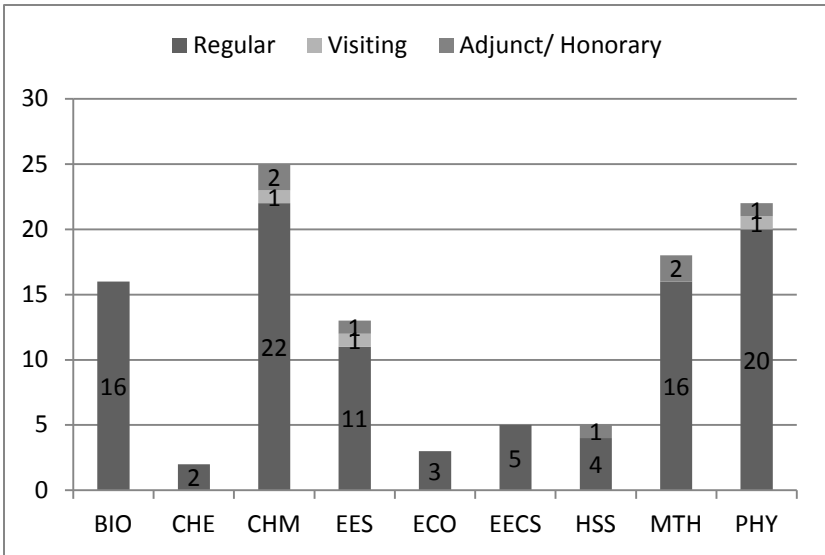
Total Value of Projects Sanctioned (Amount in Lakh)



FACULTY AND STAFF

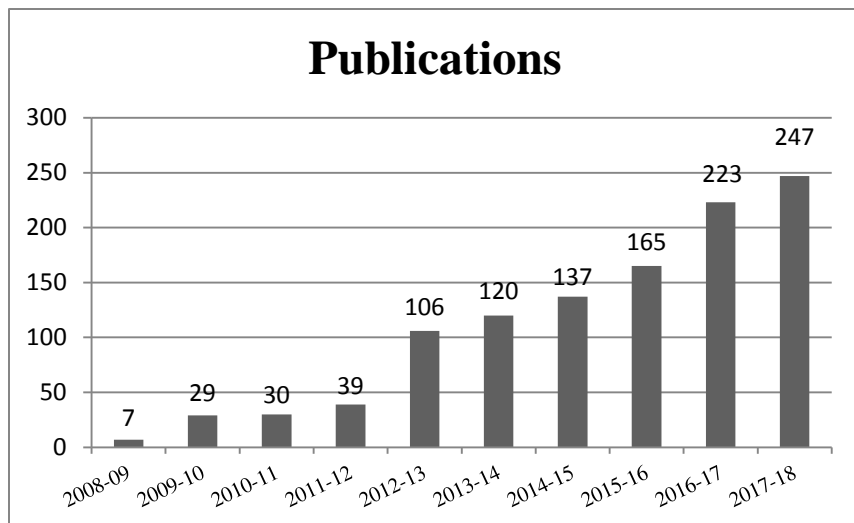
There is a continuous drive to recruit Faculty members in all disciplines keeping in mind the global academic requirements and to meet the ever increasing demand of quality teaching and research. The current Faculty strength in the Institute is 10 (99 Regular, 3 Visiting and 7 Adjunct/ Honorary Professors).

The graphs below exemplify the rising trend in the number of faculty members in the Institute as well as across each discipline over the years.



Publications:

The quality research carried out by the Faculty members of the Institute are published regularly in peer reviewed journals of National/ International repute. In the year 2017-18, IISER Bhopal has published 247 original research papers in International peer-reviewed journals.



Faculty Achievements:

Our Faculty members are actively involved in cutting edge research which have earned them and the Institute several accolades in the form of awards/ honors/ fellowships and distinctions from National and International organizations. Some of the major distinctions achieved by our Faculty members during 2017-18 are:

- **Prof. Vinod Singh**, has been awarded 'Professor Subramania Ranganathan Memorial Medal (2018)' by the Indian National Science Academy (INSA) for his outstanding contributions in Chemistry.

- **Dr. Sanjeev Shukla**, Department of Biological Sciences was recognized by few of the major media groups viz. The Hindu, India Science Wire and The Wellcome Trust/DBT India Alliance for his research work on Breast Cancer.
- **Dr. R. Mahalakshmi**, Department of Biological Sciences, has been nominated as Advisory Member, Wellcome/ DBT India Alliance Gateway
- **Dr. Sankar Chakma** was awarded “Hiyoshi Young Leaf Award” for outstanding contribution to research, design & methodology development and application of science & technology for the protection and conservation of the environment (2017).
- **Dr. R. Mahalakshmi**, Department of Biological Sciences, has been nominated as Editorial Board Member, Biopolymers: Peptide Science
- **Dr. Vinita Gowda**, Department of Biological Science TrEE lab herbarium officially registered with the Index herbariorum as BHPL
- **Dr. Vishal Rai**, was awarded BIRAC-BIG grant for “Protein Labeling Technologies” initiates the first startup at TBI, IISERB (August 2017).
- **Dr. Joyanta Choudhury**, has been chosen as one of the "Movers & Shakers" by the industry-leading magazine "The Catalyst Review", published by The Catalyst Group (TCG), PA, USA (July 2017).
- **Dr. Himanshu Kumar**, Department of Biological Sciences has been nominated as Guest Associate Professor at WPI Immunology Frontier Research Center.

Awards

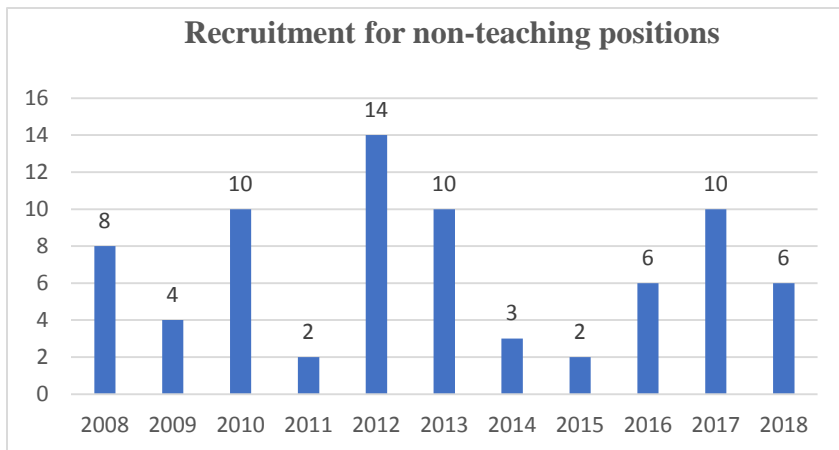
- **Dr. Ajit Chande**, Department of Biological Sciences awarded Innovative Young Biotechnologist Award (IYBA)
- **Dr. Nitin T. Patil** was awarded the CRSI Bronze Medal for 2017-18
- **Dr. Bhargava Ram N.** was awarded SERB Early Career Research Award, 2018-2020

Fellowships

- **Dr. Chandan Sahi**, Department of Biological Sciences, awarded Matsumae International Fellowship
- **Dr. Varun Chaudhary**, Department of Biological Science, awarded DBT-Ramalingaswami Fellowship
- **Dr. Ajit Chande**, Department of Biological Sciences awarded Ramanujan Fellowship Award
- **Dr. K V Adarsh** has received the Bhaskara Advance Solar Energy Research Fellowship, 2018
- **Dr. Bhargava Ram N.** has received the DST Inspire Faculty Fellowship, 2017-2022
- **Dr. Bhargava Ram N.** has received the Netherlands Science Foundation – Visitor Fellowship 2017

The current non-teaching staff strength is 75 and the remaining sanctioned vacancies are being filled up, through the regular recruitment activity.

The graph below summarizes the recruitment for non-teaching positions.



CONSTRUCTION AND CAMPUS DEVELOPMENT

On completion of execution of the permissible area of 1,17,000 sqm as per approved DPR and shifting of the Institute completely to the permanent campus, the Institute Works Department focussed on development of campus. During the year, the work of rain water harvesting by providing numbers of recharge wells, construction of footpaths, covered parkings, development of entrance gate and security office have been completed.

On renewable energy front, grid connected roof top solar plant of 347 KWp on zero cost model has been installed and is likely to commission soon after obtaining statutory approvals. For up gradation of internet services, data centre has been established in new Computer Centre building.

Apart from its vast and ultramodern infrastructure IISER Bhopal campus boost of splendid horticulture and picturesque landscape work with different species of trees being planted all around the

campus. There was no tree when the land was acquired whereas more than 6000 numbers of trees have been planted now. 40,000 sqm of green sprawling lawn have been developed and are being maintained. Within a span of 4 years one can see greenery everywhere in the campus. Most of the water requirement of horticulture is met with the treated effluent of STP.

I am proud to announce to you that the Institute has completed the development of all the infrastructural facilities as per the DPR in the FY 2017-18 and submitted the report to MHRD. Also The External Peer Review committee which was constituted by the Ministry of HRD had visited the campus during December 4-5, 2017 and submitted a very encouraging report after reviewing the infrastructural facilities created during project period, governance system of the Institute and performance in achieving its objectives. Accordingly the Ministry has notified the closure of initial project mode of operation and shifted the Institute to normal mode of funding.

STUDENTS' ACTIVITIES

IISER Bhopal endeavors to provide students with a perfect balance of extra-curricular skills along with the regular academic curriculum, so that the students passing out from here are not just good academicians, but are good citizens of the nation as well.

STUDENTS' ACHIEVEMENTS

Our students have achieved fellowships and internships from various reputed Institutions. Given below are some of the major accomplishments of our students:

- **Mr. Ranjeet Singh Mahla**, Ph.D student, Department of Biological Sciences, has been awarded 10,200 GBP by British Council and Rs 95,000 by DBT for his research work at University College London and travel assistance.

- **Mr. Md Ishaque Khan**, IPh.D student Department of Physics, has been selected for the prestigious S.N. Bose Scholars Program 2018 jointly by DST-Govt. of India, IUSSTF, SERB and WINStep Forward.
- **Ms. Chetana Tamadaddi**, Research Scholar, Department of Biological Sciences was conferred with M.P. Young Scientist Award in Plant Sciences at 33rd M.P. Young Scientist Congress, held at Rani Durgawati University, Jabalpur during March 15-16, 2018. The award consisted of cash prize and the Fellowship for Training of Young Scientist (FTYS) for carrying out research in any reputed labs in the country, pertinent to the field of work for a period of six months.
- **Mr. Hifzurrahman**, Ph.D student, Department of Earth and Environmental Sciences, has been selected as a “Campus Representative” of IISER Bhopal in Geological Society of America.
- **Ms. Riya Modi**, BS-MS (Dual Degree) Student, Department of Chemistry has secured All India Rank of 4 in GATE 2018 examination.
- **Ms. Mamatharani D V**, BSMS student, Department of Biological Sciences, has been scored CSIR-UGC NET JRF (Rank: 54) and GATE (Rank-27 Score-810).
- **Mr. Ajith Ashokan**, Research Scholar, and **Mr. Saket Shrotri**, BS-MS (Dual Degree) Student from Department of Biological Sciences have received the Tan Jiew Hoe Fellowship from Singapore Botanic Gardens to attend the Ginger Symposium 2018.
- **Md Saquib Saharwardi**, the PhD student in EES Dept., was invited with full financial support by ICTP, Italy to attend an international workshop on "Fourth Workshop on Water Resources in Developing Countries: Hydroclimate Modelling and Analysis Tools" from June 12-23, 2017.

IISER Bhopal was one among 10 teams from all over India to have cleared Stage I of the "Touch the Jovian Moon Contest" organized by LPSC, ISRO. The core team constitutes of 6 BS-MS students and Dr. Kushal Shah, Associate Professor and Head, EECS Dept, IISER Bhopal as faculty mentor.

STUDENTS' ACTIVITY COUNCIL

Students Activity Council (SAC) is a council of students that address their concerns and organizes extracurricular activities in the Institute. It is totally managed, organized and maintained by the students themselves. SAC contains six different Activity Councils (Computing & Networking, Cultural, Fine Arts and Literary, Career Development Council, Science and Sports) and a Representative Council. The Activity Councils of SAC manage the extracurricular affairs while the Representative Council works as the channel to address all the issues of the students related to academics, hostels, and student life in general. The Students Senate is the overall governing body of SAC; all the decision-making regarding the students is done here. Cultural activities are a set of performing and non-performing arts, which are run by a set of clubs corresponding to different skills and interests.

The Student Activity Council is responsible for developing, reviewing, and evaluating plans and setting directions for student affairs in accordance with the vision, mission and strategic plan of the institute. SAC primarily fosters the coordination and communication between Institution and student body and make sure student's opinions are being heard.

Enthuzia 2017-18: IISER Bhopal Annual Cultural Festival

The Cultural Council under SAC had organized the fifth edition of the Annual Cultural Fest of IISER Bhopal, Enthuzia-18 from January 26-28, 2018. The competitions witnessed participation

from students of IISERB as well as from other Institutions in and around Bhopal.

Singularity 2017: IISER Bhopal Annual Science Festival

The fourth annual science festival titled “Singularity 17” was organised by the Science Council, under Student Activity Council of IISER Bhopal from October 13-15, 2017. There were many competitions during this festival which amused students and demonstrated how curiosity can make an impact in creating interest in research field if given a chance to wonder about basic science laws and principles through these competitions. The entire events combined saw 570+ participants from IISERB and 100+ participants from outside. Inspirational and prominent speakers from India and abroad graced the festival.

Dining Hall

There are 4 Dining halls that are located in the Institute campus and are operated by the Students Cooperative Mess Management Committee for each Dining hall. The Mess Committee consists of the students who look after the hygiene and mess management which includes the Menu. Every Dining hall has a separate Mess Committee.

Hostel Facilities

Institute provides an on-campus hostel accommodation to all the students registered in the BS-MS, PhD and Integrated PhD Programmes. Institute has a total of 06 Hostels (4 Boys Hostel and 2 Girls Hostel). Hostel buildings have provision of ramp at entrance and lift (elevators) facility is also available for easy movement of students. Provision of rooms with attached toilet is also made available for the students with disability. Each hostel room is provided with all the basic amenities for the students. Gym facilities for boys and girls equipped with latest equipment are available in the Institute. Another gym is also located at the Institute club.

Counselling Services

The students' counsellors strive to ensure welfare of students by providing them with emotional and moral support during times of academic or emotional stress, anxiety, depression etc. Counselling Service is completely driven by trust and the highest degree of confidentiality is maintained. The counsellor also arranges for regular talks and seminars by eminent psychologists to boost morale of the students and also to address specific issues faced by the students.

Sports Initiatives

Institute has appointed full time Sports In charge and sufficient number of coaches for different sports i.e., Lawn Tennis, Table Tennis, Badminton, Volley Ball, Yoga and basketball. Coaches are available in morning and evening hours for the students so that they can get trained in their presence.

Students Achievements in 6th Inter IISER Sports Meet (IISM-17) held at IISER Mohali

- Championship trophy in Athletics
- Championship trophy in Football (Girls)
- Championship trophy in Kho-Kho (Girls)
- Championship trophy in Lawn Tennis (Girls)
- Runner-ups trophy in Badminton (Girls)
- Runner-ups trophy in Kho-Kho (Boys)
- Runner-ups trophy in Table Tennis (Boys)

Mini Marathon 2017

The 4th mini marathon was organised on the occasion of Sports Day on August 27, 2017. Almost 350 people from Institute community participated in the event.

IISER Bhopal Cultural and Sports Foundation (ICSF, Bhopal)

Institute has constituted the “IISER Bhopal Cultural and Sports Foundation” (ICSF, Bhopal) to promote sports and other cultural and recreation activities for the students and campus community members. This also comprises of the Sports Council represented by the Students under the Student Activity Council (SAC). Activities conducted under the aegis of ICSF:

National Youth Day- 2017

The National Youth Day is observed all over India to commemorate the birthday of great Swami Vivekananda i.e. 12th January as a National Youth Day every year.

As a part of the of Celebration of the National Youth Day, IISER Bhopal invited Swami Sarvasthananda (The Minister-in-charge, Ramakrishna Vedanta Center, UK) to deliver a motivational talk entitled “Becoming Tomorrow's Contributors”.

International Day of Yoga- IDY 2017

The Institute celebrated International Day of Yoga-IDY2017 on June 21, 2017. A weeklong celebration from June 15 to June 21, 2017 was organized on the occasion by organising Yoga Sessions every morning. In addition to this essay writing contest, Blog contest, Yoga Asana Competition, Yoga Dance presentation were organised for the community members.

“SWACHCH BHARAT ABHIYAAN” ACTIVITIES

Celebration of Swachhta Pakhwada - September 1 - 15, 2017

IISER Bhopal observed Swachhta Pakhwada-2017 from September 1-15, 2017. The initiatives undertaken during the fortnight were cleanliness awareness; Cleanliness drives by respective stake holders at their respective building premises.

An off-campus cleanliness drives and awareness programme by the Unnat Bharat Abhiyan (UBA) team conducted in nearby villages. Furthermore, activities like various competitions, tree plantation were organised.

Swachhta Hi Seva - September 15 to October 02, 2017

The Institute observed “Swachhta Hi Seva” from September 15 to October 02, 2017 as per Government of India fresh initiative to celebrate the 3rd anniversary of Swachh Bharat Abhiyan. The following activities were undertaken during the celebration period:

“Swachhta Hi Seva”- Pledge: “Swachhta Hi Seva” pledge taking ceremony was held on September 22, 2017 in the Institute Auditorium.

Interactive Session: As part of the celebration of “Swachhta Hi Seva”, an interactive session was held on On-campus Garbage collection and cleaning system and initiatives on Rain Water Harvesting.

“ENLIVEN”- A tree plantation: During the Celebrations the Environmental and Social Initiative Club (ESIC) in association with Institutes Horticulture officials organised the “ENLIVEN”- A tree plantation drive in the campus. Enliven-Phase-2 Tree plantation drive was also held on October 02, 2017 on the occasion of “Mahatma Gandhi Jayanti. The Swachhta Hi Seva elicited widespread participation by the students, faculty and staff members.

National Unity Day: The IISER Bhopal celebrated Rashtriya Ekta Diwas (National Unity Day) on October 31, 2017 to commemorate the Birth Anniversary of Late Sardar Vallabh Bhai Patel. As a part of the Celebration of Rashtriya Ekta Diwas, the Institute organized a pledge taking ceremony and ‘Run for Unity’ and paid tribute to the great leader.

Observance of Constitution Day: The IISER Bhopal celebrated Constitution Day by Observing Fundamental duties and Run for Unity.

Ek Bharat Shreshtha Bharat (EBSB): IISER Bhopal is Celebrating Ek Bharat Shreshtha Bharat (EBSB) a year-long cultural integration under EBSB activities from October 2017 to October 2018. A series of online, open stage and field events, along with cultural programme were organized by the student community under EBSB activities. Celebrations and events involved participation from students of different cultural backgrounds and the aim was to enlighten them with the traditions of the different states.

Matrihasha Diwas: These events were conducted in the Institute auditorium on Wednesday, February 14, 2018 in collaboration with EBSB activities on the day. The Celebration was postponed due to Mid Semester examinations in the Institute commenced from February 17, 2018. Matrihasha Diwas was celebrated by organising events such as singing songs or lullabies, reciting a poem or narrating a short story in their mother tongue (participants were requested to translate their presentation in English or Hindi for the benefit of the audience).

ALUMNI AND INTERNATIONAL RELATIONS

The aim of the Office of Alumni at IISER Bhopal is to establish and maintain a long-term relationship with the Alumni Community. To achieve this, the office is constantly in touch with the Alumni by sending Alumni Newsletters on a monthly basis. To strengthen it further, the Alumni Meets in the US (at Pittsburgh and Boston) were organized and was attended by our Alumni currently residing in the US. A Web Portal is created for collecting donations from our alumni (<https://donate.iiserb.ac.in/Donate>).

One of our faculty recently visited Japan, under the Sakura Science Program. We have signed an International MoU with

ENS Paris – Saclay/Lyon in 2017-18. 3 of our students (two from BSMS program and one from PhD program) have been selected for the Internship Program at ENS Paris.

With an aim to provide an opportunity for all our community members to learn foreign languages, our office with the help of Alliance Francoise, Bhopal has introduced “French Language Program” within the campus. After this course, the participants will be eligible to appear for the internationally recognized French Language Certificate Exam "DELF A 1".

To foster collaboration between IISERB and other Institutions, the Office has organized the visit of delegates to the campus:

Mr. Hiroshi Yoshino, Director (University of Tokyo India Office), Dr. Tomoko Nasukawa, Executive Director & Vice President (Hyogo University of Teacher Education) and Ms. Noriko Nasukawa, President (Nihongo Center President) visited IISER Bhopal in August 2017 to educate the IISER Community on 'Higher Studies and Research in Japan'.

Ms. Gaëlle Lienhardta, the representative of Campus France Indore, visited IISER Bhopal in November 2017 to interact with our students who have enrolled in the French Learning Program and provided them information on the opportunities available for higher education in France.

Professor Keitaro NAKATANI, Vice-président chargé de la Recherche, and Professor of Chemistry, ENS Paris-Saclay, visited IISER Bhopal in November 2017. He presented a talk on "Presentation of the Ecole Normale Supérieure (ENS) system, and ENS Paris-Saclay: a research-based training program". It was an interactive session with faculty and students to create awareness of the available opportunities for research in ENS Program, France.

Ms. Arbinder Pal, Trade Commissioner at the Consulate General

of Canada in Mumbai visited IISER Bhopal in March 2018. She presented a talk titled “Education in Canada: A World of Possibilities Awaits”. It was an interactive session attended by faculty and students to know about the prevailing opportunities in the areas of research in Canada.

Mr. Yanick Ricard, VP for Research, Mrs. Severine Dalynjak-Bresciani, Manager, International Cooperation (ENS Lyon), Mr. Keitaro Nakatani, VP for Research (ENS Paris Saclay) & Mrs. Sandrine Maximilien from French Embassy in India visited IISER Bhopal in March 2018 to discuss the various opportunities available for research collaborations. Also, there was a MoU signed between the IISER Network and ENS Paris during their visit to India.

Professors, Dr. Andreas Kirschning, Dr. Gerald Dräger, Dr. Regina Nogueira, and Dr. Herbert Pfnür along with Dr. Balasubramanian Ramani (Advisor and Regional Coordination) from Leibniz Universität Hannover visited IISER Bhopal in March 2018 to meet various faculty members and discuss opportunities available for collaboration.

Intellectual Property Rights and Incubation Cell (IPRIC), IISER Bhopal

The Intellectual Property Rights and Incubation Cell (IPRIC) which functions under the R&D wing of the Institute helps the researchers and students at IISER Bhopal in preparing and filing the patent and other IP applications. With an intention to provide basic knowledge of different IPRs, a short course in IPR is offered to the BSMS students and PhD students of all disciplines every year. During the year 2017-18, three patent applications were filed through IPRIC, and the details are given below:

Title: Systems for Cellular and Sub-cellular Organelle Targeting
Inventors: Dr. Apurba Lal Koner, Kaushik Pal, Aman Sharma
Department: Department of Chemistry

Title: The Signal Recognition Particle as a Novel Antibacterial Target

Inventors: Dr. Ishu Saraogi, Sudipta Ghosh, Snehlata Saini

Department: Department of Chemistry

Title: Amphiphilic Cationic Polyelectrolytes and Nano Formulations Thereof

Inventors: Dr. Aasheesh Srivastava

Department: Department of Chemistry

Placement Cell

The Placement Cell at IISER Bhopal is responsible for campus as well as off-campus placements and making internship opportunities available for students of the institute. It also entails a Student's council, namely the CDC (Career Development Council), which looks after co-ordination of placements and related events, organizing workshops, as well as publishing newsletters and magazines. In the year 2017-18, placement cell hosted two successful campus placements during which four of our students got offers in the range of Rs. 5 lacs to 13 lacs per annum. The department has also arranged for internship opportunities for students.

Innovation and Incubation Centre for Entrepreneurship (IICE): Technology Business Incubator at IISER Bhopal

Innovation and Incubation Centre for Entrepreneurship (IICE) at IISER Bhopal has been set up with an aim to establish and facilitate the creation of an entrepreneurial ecosystem. Department of Science and Technology (DST) and IISERB have provided the funds and resources for the Infrastructure Development and Operations. Our faculty and students have taken initiatives to start their own Start-Ups.

Currently, there are two companies which have been approved for incubation, of which one company named “Protein Labeling Technologies” received the first BIRAC (BIG) Biotechnology Ignition Grant. We have been receiving applications from faculty and students to start their own companies which are currently under consideration. Also, IICE has been organizing many talks/ workshops on Innovation, Grants and Entrepreneurship.

CLOSING REMARKS

Today as you are all set to become IISER Bhopal graduates, I take this opportunity to congratulate all the degree recipients, their parents and family members. You are about to enter a new segment of your life, a special phase that will make you independent individuals. I am sure that the knowledge that you have imbibed during your stay in this Institute will enable you all to achieve success in whatever you do. As an alumnus of IISER Bhopal, you will always stand up for the right cause and keep the spirit and ethos of your alma mater high. There will be several avenues which you all venture to explore; the road will be rough, there will be hurdles. However, through sheer dedication and hard work, you will reach the zenith. Our best wishes will always be there for every one of you. We will eagerly wait to hear the success stories that you will achieve and the laurels you will acquire. Your contributions will enrich the heritage of the Institute. As students you have helped us to build IISER Bhopal and now as alumni, you will contribute in creating a mark on the global academic canvas. I wish you all the very best in all your endeavours.

Jai Hind.

Vinod K Singh
Director, IISER Bhopal



भारतीय विज्ञान शिक्षा एवं अनुसंधान संस्थान भोपाल
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