



Pandit Dwarka Prasad Mishra

**Indian Institute of Information Technology,  
Design & Manufacturing Jabalpur**

(An Institute Established by MHRD, Govt. of India)

**Annual Report**

**2013-14**





## Contents

Sl. No.	Description	Page No.
1.	Director's Report	1
2.	The Institute	5
3.	Governance	
	Board of Governors	8
	Finance Committee	9
	Senate	10
	Building & Works Committee	14
	Institute Level Standing Committees/Cell	15
4.	Academics/Administration	
	Faculty	16
	Research Engineers	25
	Office Administration	26
	Staff Members	27
5.	Academic & Research Activities	
	Academic Programmes	29
	Research Projects	35
	Research Publications	37
6.	Convocation 2013	47
7.	Library	50
8.	Students' Life	54
9.	Students' Festivals and Events	60
10.	IIITDM-Japan Collaboration	63
11.	Seminars/Workshops/Conferences/Training Programmes	66
12.	Infrastructure Development	70
13.	Equipment Procured	78
14.	Annual Accounts	80
15.	Details of Expenditure Incurred	81
16.	Annual Audit Report	85
17.	Right to Information Act 2005 : Report	93





## DIRECTOR'S REPORT

IIITDMJ has the distinction of being the first institute established by the MHRD, Government of India with the primary objective of promoting high quality education and research in design and manufacturing with the applications of IT. Established in 2005 the Institute is imparting education in three basic fields of engineering, Computer Science and Engineering, Electronics and Communication Engineering and Mechanical Engineering. With the graduate, master's and PhD programmes in these disciplines, the institute also offers Master and PhD programmes in Design, Master programme in Mechatronics, PhD programmes in Natural Sciences and short term courses in Japanese language.



It is indeed a privilege for me to report the progress and achievements of the Institute and give a brief account of some of the activities and events that took place at the Institute in the year 2013-14.

### Academic and Research Activities

Faculty and students of the Institute have been organizing various conferences, workshops and symposia to provide a platform for interaction and exchange of ideas among researchers, professionals and students. The first IEEE International conference on control, automation, robotics and embedded systems was organized during December 16-18, 2013 by Dr Prabin Kumar Padhy, Dr Jawar Singh and Dr Sachin Kumar Jain. This was the first IEEE event organized at the campus and participants from USA, Japan and Australia etc. participated in the conference apart from a large number of participants from different parts of the country. Keynote lectures were delivered by Prof Toshio FUKUDA, Prof S C Srivastava, Prof Suraju Mohanty and Prof S N Singh.

Sixteenth international Conference of International Academy of Physical Sciences was also organized by Dr Prabin Kumar Padhy, Dr Sachin Kumar Jain and Dr Sraban Kumar Mohanty during March 20-22, 2014. More than 200 participants from across the country participated in the conference. Ten Scientists were felicitated by the academy due to their outstanding research contribution.

In the series of design workshops, a Mini Design Workshop on 'Nature Inspired Design' was organized during December 6-7, 2013 by Dr Jayesh Pillai and Mr K K Balakrishnan. In the workshop, a students' design challenge was also organized that attracted entries from outside India also. Winner of the students design challenge was Ms Nikita Chandekar from MIT Institute of Design Pune, India and her design idea was Eco-Bhel.

A school on advanced algorithms was organized jointly by the Institute and Indo-German Max Planck Centre for Computer Science during June 11-14, 2013. Dr Atul Gupta was the coordinator from the Institute. Another noteworthy workshop on "Research Trends in Nanofabrication with TCAD Simulation" was also organized by Dr Asutosh Shrivastava.





It is worthwhile to mention here that skill development programme series has also been started by our faculty members with the initiatives of Dr Prashant Kumar Jain and Dr Pavan Kankar and contribution of various faculty members.

Commitment and dedication of our faculty and academic staff in intensifying quality research in various fields has started showing up. Some of their works have had the distinction of high citation and most viewed articles. Dr Nihar Ranjan Jena's recent work on mechanism, mutation and repair of DNA damage has received considerable attention and citation in the works of other researchers. Dr Pavan Kumar Kankar's work with his PhD guides on vibration-based fault diagnosis of a rotor bearing system has also attracted the attention of researchers working in the field and has been cited in a number of scholarly publications. Other most viewed / downloaded articles were by Dr Jawar Singh and Dr Anil Kumar and his co-authors.



Dr Rajesh Kumar Pandey's work with his co-author Dr O P Agrawal on Generalized Isoparametric Constraint Variational Problems has received the distinction of the best paper by Mechatronic and Embedded Systems and Applications (MESA) committee of ASME in 2013. Another remarkable work on Generation of Safety Validation Test Cases from UML Activity Diagram by Dr Atul Gupta and his student Saurabh Tiwari earned the Best Paper award in the twentieth Asia-Pacific Software Engineering Conference (APSEC) 2013. It is a matter of pleasure that Mr Biswajeet Mukharjee has been chosen for Young Scientist Award at the 31st General Assembly and Symposium of International Union of Radio Science (URSI) in 2014. Prof Puneet Tandon has been invited to Chair '2014 International Conference on Mechatronics and Mechanical Engineering' (ICMME 2014) scheduled during September 6-8, 2013 at Chengdu, China. The article written by Dr Jayesh Pillai and his co-authors on "Presence in Visual Mental Imagery" has received the best paper award in the '3rd International Visual Informatics Conference (IVIC 2013)'. His short film has also been selected for 7th International Documentary and Short Film Festival of Kerala and 4th Gujarat International Film Festival of India.



## Students' Achievements

Students had better placement opportunities this year. Twenty three different companies have given offers to our students including Infosys, Capital IQ, Oracle, Persistent, IBM, Hitachi, AMDOCS and MHI. More companies are likely to visit the campus in future to take the benefit of talent pool available here. The trend among students is now changing and many students are aspiring for higher studies in institutions of repute. We would like to mention achievements of some of them. Harshit Gupta and Nitin Khandelwal have secured direct admission after B. Tech. to the PhD programme of IIT Kanpur.





Ankit Awasthi has secured admission at the University of Dallas, Vineet Singh at Trinity College, London and Robin Singh Nanda at Indian Institute of Science. Further, Mayank Garg has received prestigious MEXT scholarship of Japan Government for master's programme in Nagoya University, Japan.

I would like to particularly mention a different path taken by some of the alumni of this Institute. Ankur Agrawal, Suteerth Tripathi, Manish Pandey and Akash Agrawal (B. Tech. final year students) have made a modest beginning as entrepreneurs by starting their company "Appcon". Arpit Gupta has also launched a company called T.R.E.E.S. that provides robotic and embedded systems solutions. Although, this may not be counted in the present context as a success story of our alumni, we hope, they will carve out their space and shall become a source of inspiration for other students of the institute. Many other alumni have also brought laurels to the Institute by their achievements in various important sectors. I would like to particularly mention that Piyush Pandey of B. Tech. 2012 batch has secured 195<sup>th</sup> rank in the IAS merit list. Our heartiest congratulations to all of them and we wish they serve the nation and fulfil their dreams.

## Students' Activities

Year round activities of students keep the campus vibrant and colourful. Three important annual festivals of the Institute Tarang, Abhikalpan and Gusto organized by the students have become the most popular events in this part of the country. For the first time, our students' team have also participated in the prestigious "Robocon" competition and their performance was quite satisfactory. Students have also started the famous Baja SAE club activities at the Institute.

The Institute enjoys a special relationship with Japan under a treaty signed between the Governments of Japan and India. This is a unique opportunity for us and our faculty, students are taking benefit of the association. This year, 14 students visited Japan under the JENESYS programme for a period of two weeks and three students were also offered six months internship under the IIITDMJ – Japan collaboration. Further, eleven Japanese professors visited the Institute to contribute in our teaching programme during the session 2013-14.

## Financial Report 2013-14

An amount of ₹ 8000.00 Lakhs was sanctioned as the Plan Grant to the Institute in FY 2013-14. Internal Income for the FY 2013-14 was ₹ 480.41 Lakhs. A total amount of ₹ 9090.91 was available for expenditure during FY 2013-14 including internal income of ₹ 524.85 Lakhs and an unspent balance of ₹ 85.64 Lakhs. An Internal Institute corpus has been created with internal income amounting ₹ 1005.26 Lakhs in FY 2013-14. The Grant amount was utilised in different heads as follows:





₹ in Lakh

Particulars	Head 36 (Salaries)	Head 31 (General Expenditure)	Head 35 (Creation of Capital Assets)	Total
Opening Balance of Grant as on 01.04.2013	85.04	0.00	0.60	85.64
Grant Sanctioned for FY 2013-14	581.82	1909.09	5509.09	8000.00
Total Fund Available	666.86	1909.09	5509.69	8085.64

Out of total funds available, an amount of ₹ 7525.26 Lakhs has been utilized in different heads as follows:

₹ in Lakh

Particulars	Head 36 (Salaries)	Head 31 (General Expenditure)	Head 35 (Creation of Capital Assets)	Total
Grant Available	666.86	1909.09	5509.69	8085.64
Expenditure Incurred	648.59	1367.14	5509.53	7525.26
Balance Fund as on 31.03.2014	18.27	541.95	0.16	560.38

Out of total expenditure of ₹ 7525.26 Lakhs an amount of ₹ 4419.64 Lakhs was deposited with CPWD for different construction works. An amount of ₹ 105.53 Lakhs was spent on construction works undertaken by the Institute, an amount of ₹ 82.58 Lakhs was spent on furniture and fixtures, an amount of ₹ 213.64 Lakhs was spent on purchase of equipment and an amount of ₹ 166.99 Lakhs was spent on Library books and e-journals. An amount of ₹ 311.13 Lakhs was spent on purchase of Computers Hardware and Software.

### Infrastructure Support

This year was dedicated to development of roads and other services in the Institute campus. Design and development took a long time and was finally approved by the Board of Governors. DG set of 1000 KV capacity has been installed and is in testing phase. With the commissioning of the DG set, the electric supply will be 24 × 7 at the Institute. The sick project of Mess and Dining Hall is now geared up and it is expected that the central mess facility will start from the next academic session.





## THE INSTITUTE

### Brief Historical Background

Pandit Dwarka Prasad Mishra Indian Institute of Information Technology, Design & Manufacturing (PDPM IIITDM) Jabalpur was established by the Ministry of Human Resource Development on January 24, 2005 under Madhya Pradesh Society Registration Act 1973. The foundation stone of the Institute was laid by Late Shri Arjun Singh, the then Minister of Human Resource Development (MHRD) on February 7, 2005. The Institute is named after Pandit Dwarka Prasad Mishra, former chief minister of Madhya Pradesh, who hailed from Jabalpur. The first academic session of PDPM IIITDM Jabalpur started from August 2005. The Institute started operating from the temporary location at the IT Bhawan of the Jabalpur Engineering College. Prof Sanjay G. Dhande, Director, IIT Kanpur was given the additional charge as the Director of the Institute. On May 3, 2006, a land of 250 acres near Dumna Airport of Jabalpur was identified by the State Government of M.P. and was handed over to the Institute. The construction work of Phase I buildings was started in 2007.

### Vision

PDPM Indian Institute of Information Technology , Design and Manufacturing (IIITDM) Jabalpur shall emerge as a Global Knowledge Hub for quality research and teaching under the broad area of Design and Manufacturing through cross disciplinary, innovative, futuristic and dynamic approaches.

### Mission

To create an environment of high quality research and training that

- provides maximal opportunities for intellectual and creative development.
- provides exposure to solve real life problems through interdisciplinary approaches.
- encourages students to learn through inquiry and hands on experience rather than simple transmission of knowledge through class room teaching.

### Values

Besides continuing its ongoing activities, the Institute seeks to act in a manner that is guided by a deeprooted sense of shared values and aspirations for its future planning. Working under such a sound



frame of reference, the Institute:

- seeks to establish and maintain an environment enabling academic community to take intellectual and creative risks and to embrace changes that will lead to the technological innovations and development in future years.
- encourages, recognizes and rewards high performance in learning, teaching, scholarship, research and other creative activities by promoting intellectual curiosity and protecting the basic principles of academic freedom.
- provides an environment that imbibes respect for nature and environment, culture and human values.
- aspires to build an environment of tolerance and reasoned debate without any gender, caste, religious, regional or cross country bias by affirming the worth and personal dignity of every constituent member of the Institute and by contributing to a campus climate of civility.

### **Present Status**

Presently, the Institute is operating from its own campus at Dumna Airport Road, Jabalpur. First few buildings have come up and others are under construction. Presently the Institute is offering undergraduate, postgraduate and research programmes in Computer Science and Engineering, Electronics and Communication Engineering and Mechanical Engineering. Apart from this, the Institute also offers Ph.D. programmes in Design, Natural Sciences and master level programmes in Design and Mechatronics.

### **Future Perspective**

Construction work of residential buildings, PG Hostels, Girls Hostel, Visitors Hostel, Health Centre, and Sports Complex is likely to be completed in the next year. We have created an Internal Corpus for future plans and have plans to add good sum this year. Dual degree programme is running successfully and some specialization at masters level courses will be started in 2014-15. Some more facilities are to come up in 2014-15 such as Language Lab, Virtual Class room etc.









## GOVERNANCE

Administration and Governance: The Institute is governed by the Ministry of Human Resource Development through a Memorandum of Association (MOA). As per the MOA following bodies are the Institute's Administrative Authorities:

- Board of Governors (BOG)
- Finance Committee (FC)
- Senate
- Building & Works Committee (BWC)

### Board of Governors

#### Name of Member

#### Designation

Prof S V Raghavan  
Scientific Secretary,  
Office of the Principal Scientific Advisor,  
Govt. of India

Chairman

Shri Ashish Kumar Chauhan  
Managing Director & CEO, BSE Ltd.

Member

Prof U B Desai  
Director, IIT Hyderabad

Member (upto 13-02-14)

Shri D M Gupta, IOFS (Retd.)  
Former DGOF & Chairman,  
Ordnance Factory Board

Member

Shri Amit Khare (IAS)  
Joint Secretary, Bureau of Administration  
MHRD, Govt. of India

Member (Ex-officio)

Mr Ajay Kumar (IAS)  
Joint Secretary,  
Dept. of Electronics & Information Technology  
Govt. of India

Member

Prof Pradeep Mathur  
Director, IIT Indore

Member (upto 13-2-2014)

Prof Aparajita Ojha  
Director, PDPM IIITDM Jabalpur

Member (Ex-officio)





Shri Hari Ranjan Rao (IAS) Secretary, Department of IT, Govt. of Madhya Pradesh	Member (Ex-officio)
Prof G K Sharma Professor, IIT Gandhinagar	Member
Prof Tanuja Sheorey Professor, PDPM IIITDM Jabalpur	Member
Prof R K Shyamasundar Senior Professor Tata Institute of Fundamental Research, Mumbai	Member (upto 13-2-2014)
Prof Puneet Tandon Professor, PDPM IIITDM Jabalpur	Member
Shri R P Dwivedi Registrar PDPM IIITDM, Jabalpur	Secretary (Ex-officio)

Four meetings of the BOG were held during the year 2013-14.

## Finance Committee

### Name of Member

### Designation

Prof SV Raghavan Scientific Secretary, Office of the Principal Scientific Advisor, Govt. of India	Chairman (Ex-officio)
Prof U B Desai Director, IIT Hyderabad	Member(upto13-02-2014)
Prof Ashok Jhunjhunwala Professor, IIT Madras	Member (upto 11-10-2013)
Shri D M Gupta, IOFS (Retd.) Former DGOF &Chairman, Ordnance Factory Board	Member (From 11-10-2013)
Shri Alok Mishra Director (Technical) MHRD, Govt. of India	Member (Ex-officio)



Prof Aparajita Ojha Director PDPM IIITDM Jabalpur	Member (Ex-officio)
Shri Navin Soi Director (Finance), MHRD, Govt. of India	Member (Ex-officio)
Shri RP Dwivedi Registrar PDPM IIITDM Jabalpur	Secretary (Ex-officio)

Three meetings of the Finance Committee were held during 2013-14.

## Senate

### Name of Member

### Designation

Prof Aparajita Ojha Director PDPM IIITDM Jabalpur	Chairperson
Dr Sunil Agrawal Head (ME Discipline) PDPM IIITDM Jabalpur	Member
Shri S M Amane GM-IT, Foton Motors Mfg. Pvt. Ltd., Pune	Member
Dr M Amarnath Assistant Professor, ME PDPM IIITDM Jabalpur	Member
Prof V M Gadre Professor, EE IIT Bombay	Member
Dr Atul Gupta Associate Professor, CSE PDPM IIITDM Jabalpur	Member
Prof Vijay Kumar Gupta Dean (Academics) PDPM IIITDM Jabalpur	Member
Dr Prashant K Jain Associate Professor, ME PDPM IIITDM Jabalpur	Member





Prof V K Jain Professor, ME IIT Kanpur	Member
Dr Pavan Kumar Kankar Assistant Professor, ME PDPM IIITDM Jabalpur	Member
Dr Pritee Khanna Head (CSE Discipline) PDPM IIITDM Jabalpur	Member
Prof Uday Khedkar Professor, CSE IIT Bombay	Member
Prof P N Kondekar Professor, ECE PDPM IIITDM Jabalpur	Member
Dr Lokendra Kumar Assistant Professor PDPM IIITDM Jabalpur	Member
Dr Sraban Kumar Mohanty Assistant Professor PDPM IIITDM Jabalpur	Member
Dr Asish K Kundu Head (Natural Sciences) PDPM IIITDM Jabalpur	Member
Dr Prabir Mukhopadhyay Associate Professor, Design PDPM IIITDM Jabalpur	Member
Dr Prabin K Padhy Associate Professor, ECE PDPM IIITDM Jabalpur	Member
Prof Tanuja Sheorey Dean (Students) PDPM IIITDM Jabalpur	Member
Dr Asutosh Shrivastava Associate Professor, ECE PDPM IIITDM Jabalpur	Member (upto 10-02-2014)



Prof Puneet Tandon Dean (P&D) PDPM IIITDM Jabalpur	Member
Dr Dinesh Kumar Vishwakarma Head (ECE Discipline) PDPM IIITDM Jabalpur	Member
Dr Parag Vyas Grau Bär Design, Indore	Member
Shri R P Dwivedi Registrar PDPM IIITDM Jabalpur	Secretary

During the Academic Year 2013-14 three Senate meetings and two special meetings were held.

### **Standing Committees of the Senate**

#### **Under Graduate Committee of Senate (UGCS)**

Prof Vijay Kumar Gupta	Convener
Dr Pritee Khanna	Member
Dr Prabin Kumar Padhy	Member
Dr Asish Kumar Kundu	Member
Dr Gautam Dutta	Member

#### **Post Graduate Committee of Senate (PGCS)**

Prof Vijay Kumar Gupta	Convener
Prof Puneet Tandon	Member
Dr Prabin Kumar Padhy	Member
Dr Sraban Kumar Mohanty	Member

#### **Students Prizes and Awards Committee of Senate (SPACS)**

Dr Atul Gupta	Convener
Dr Sunil Agrawal	Member
Dr Prabir Mukhopadhyay	Member
Dr Pavan Kumar Kankar	Member





Dr Sujoy Mukherjee

Member

Dr Vinay Kumar Singh

Member

### **Students Advisory Committee of Senate (SACS)**

Prof Tanuja Sheorey

Convener

Prof P N Kondekar

Member

Dr Anil Kumar

Member

Dr Sraban Kumar Mohanty

Member

Dr Amaresh Chandra Mishra

Member

Mr Vineet Singh

Student Coordinator  
Counseling Service

Mr Vikas Kumar Malviya

PG Student Senate Member

Mr Yamasani Rahul

UG Student Senate Member

### **Library Committee of Senate (LCS)**

Dr Dinesh Kumar Vishwakarma

Convener

Prof Tanuja Sheorey

Member

Dr Atul Gupta

Member

Dr Mukesh K Roy

Member

Dr Bhupendra Gupta

Member

Dr Anil Kumar

Member

Dr Prabir Mukhopadhyay

Member

Dr Mamta Anand

Member

Ms Menika Patel

Assistant Librarian

Mr Bala Sundersan

Representative member of  
UG Students

Mr Saurabh Tiwari

Representative member of  
PG Students



## Building and Works Committee

### Name of Member

### Designation

Prof Aparajita Ojha  
Director  
PDPM-IIITDM Jabalpur

Chairperson (Ex-Officio)

Shri Alok Mishra  
Director (Technical)  
MHRD, Govt. of India

Member

Er D K Pandey  
SE, MPPKVV Co. Ltd., Jabalpur

Member (upto 20-11-2013)

Er A K Pandey  
Superintending Engineer (Elect)  
MPPKVV Co.Ltd., Jabalpur

Member (from 21-11-2013)

Er P R Patil  
Superintending Engineer  
CPWD (CZ), Bhopal

Member

Prof G K Sharma  
IIT Gandhinagar

Member

Prof Puneet Tandon  
Dean (P&D)  
IIITDM Jabalpur

Member

Shri R P Dwivedi  
Registrar  
PDPM-IIITDM Jabalpur

Ex-Officio Secretary &  
Estate Officer

One meeting of Building & Works Committee was held during 2013-14.





## Institute level Standing Committees/Cells

### SC, ST and Minority Cell

For the welfare of reserved category and minority students and employees and to protect their rights, this cell has been constituted comprising of following members:

Dr Jawar Singh Associate Professor	:	Coordinator
Dr Mamta Anand Assistant Professor	:	Member
Mr Sharique Husain Research Engineer	:	Member
Mr Prabodh Pandey Assistant Registrar	:	Member
Mr Santosh Mahobia Assistant Registrar	:	Member Secretary

### Grievance Redressal Cell

In case of any grievance related to service matters Institute employees may approach the Nodal Officer or any member of the cell. Cell comprises of following members:

Dr Prabin Kumar Padhy Associate Professor	:	Nodal Public Grievance Officer
Prof Vijay Kumar Gupta Professor	:	Member
Mr Prabodh Pandey Assistant Registrar	:	Member

### Women Cell

For the welfare of women employees and to protect the rights, this cell has been constituted comprising of following members:

Dr Pritee Khanna Associate Professor	:	Chairperson
Ms Sangeeta Pandit Visiting Faculty	:	Member
Mr Naresh Joshi Assistant Registrar	:	Member



## ACADEMIC/ADMINISTRATIVE STAFF

### FACULTY

The Institute has been very particular in selecting the most talented faculty available in the country and has grown from the initial strength of only two faculty members to fifty one faculty members and six research engineers who also contribute in the Institute's lab courses research programmes. The Institute also invited people from other Institutes/ organization as guest faculty to deliver lectures in special topics and/or as a part of course. Present sanctioned strength of faculty and research engineers is 65. Following is a list of faculty, research engineers and their specializations.

#### Name and Designation

#### Professional Details

#### Areas of interest & Specialization

### PROFESSORS



Prof Aparajita Ojha  
Director

PhD from RDVV Jabalpur

Geometric Modeling, Computer Aided Geometric Design, Finite Elements, Spline Theory, Approximation Theory, Wavelet Analysis, Object Oriented/ Aspect Oriented Modelling and Design, Visual Cryptography, Path Planning



Prof Puneet Tandon

PhD from IIT Kanpur

Geometric Modeling for Design, Engineering & Manufacturing; Conceptual Design, Product Innovation, Design and Development; Mechatronics; Rapid Prototyping & Tooling, Reverse Engineering, NC programming; Tool Design



Prof Tanuja Sheorey

PhD from IIT Kanpur

Algorithm development and numerical analysis, Mathematical modeling of flow through porous media; Domain decomposition and Parallel computation, Exhaust emission control from automobiles.





Prof Vijay Kumar Gupta

PhD from IIT Bombay

Smart Structures, Machine Design,  
Finite Element Methods



Prof P N Kondekar

PhD from IIT Bombay

Electronic Circuit Design, VLSI  
Design (MOST Level), Device  
Simulation and Modeling, RF  
Identification, RF Power  
Semiconductor and Modeling

## ASSOCIATE PROFESSORS



Dr Pritee Khanna

PhD from Kurukshetra University

Computer Graphics, Geometric  
Modeling, Database Management  
Systems, Biometrics, Data  
Structures.



Dr Atul Gupta

PhD from IIT Kanpur

Software Engineering, Object-  
oriented Systems, Empirical  
Software Engineering, Software  
Testing, Software Engineering  
Education



Dr Prabin Kumar Padhy

PhD from IIT Guwahati

Automatic Controller Tuning,  
Identification and Control of  
Processes.



Dr Ravi Babu Mulaveesala  
(On Lien)

PhD from IIT Delhi

Material Analysis by Thermal  
Wave Imaging; Optical  
Techniques for Non-destructive  
Measurements; Ultrasonic  
Imaging; Radiography;  
Instrumentation for Non-  
destructive Measurements



Dr Sunil Agarwal

PhD from IIT Kanpur

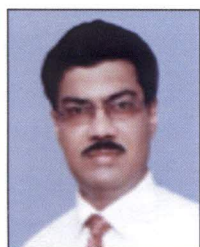
Production and Operations Management, Probability and Statistics, Time series analysis, and Quality control.



Dr Prashant Kumar Jain

PhD from IIT Delhi

Rapid Prototyping & Tooling, CNC machining, Geometric Modeling, CAD/CAM Integration, Computational geometry, Design automation, Nano Technologies in Manufacturing.



Dr Goutam Dutta

PhD from IIT Bombay

Computational fluid dynamics, Heat Transfer, Two phase flow in stability analysis, Nuclear coupled thermalhydraulic instability analysis



Dr Dinesh Kumar Vishwakarma

Ph D from IISc Bangalore

Analytical and FDTD Modeling, Antenna Analysis and Design, Microwave Engineering, Applied Photonics, Fiber Optic Communication.



Dr Prabir Mukhopadhyay

PhD from University of Limerick, Ireland

Injury Prediction, Industrial Ergonomics, Occupational Ergonomics, Ergonomics in Improving Productivity, Transportation Ergonomics, Macro Ergonomics, Cognitive Ergonomics



Dr Jawar Singh

PhD from University of Bristol, UK

VLSI, Low power system design, Nano CMOS and TFET SRAMs, Process variation and fault tolerant SRAM design, Statistical analysis of process variations in Nano-CMOS devices.





Dr Asish Kumar Kundu

PhD from JNCASR, Bangalore

Solid State Physics



Dr Ashutosh Srivastava  
(upto 10-02-2014)

PhD from Jadavpur University

Microelectronics/VLSI, Silicon  
Detectors/ MEMS.

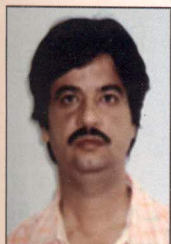
## ASSISTANT PROFESSORS



Dr Subir Singh Lamba

PhD from IIT Kanpur

Parallel Computing,  
Computational Fluid Dynamics,  
Hyperbolic BVP, Spectral  
Methods



Dr Mukesh Kumar Roy

PhD from IIT Kanpur

Formation and characterization of  
magnetic nano particles;  
magnetic multilayer; immiscible  
magnetic alloys, Low Cost Science  
Teaching Methodologies.



Dr Bhupendra Gupta

PhD from IIT Kanpur

Random graphs and its  
applications, Stochastic process,  
Probability Theory.



Dr Rajib Kumar Jha

PhD from IIT Kharagpur

Video indexing, Motion  
detection using optical flow,  
Image water marking,  
Steagography, Stochastic  
Resonance for images, Image  
enhancement using Multi-  
Retinex and newly developed  
high pass filtering approach.



Dr H Chelladurai

PhD from IIT Kanpur

Condition Monitoring, Virtual Instrumentation and Artificial Neural Networks



Dr M Amarnath

PhD from IIT Madras

Condition Monitoring and Fault Detection in Rotating Machinery, Acoustics and vibration analysis, Lubricating Oil Tribology, Nondestructive testing.



Dr Lokendra Kumar

PhD from IIT Kanpur

Spectral Methods, Parallel Algorithms, Partial Differential Equations, Numerical Linear Algebra



Dr Rajesh Kumar Pandey

PhD from IT BHU

Wavelet Analysis; Numerical Analysis



Dr Anil Kumar

PhD from IIT Roorkee

Solid State Electronic Material (Semiconductor Device & Material Semiconductor Material & Technology Solid State Device & Technology)



Dr Sraban Kumar Mohanty

PhD from IIT Guwahati

Algorithms for Big-Data, Security issues in Cloud computing, Clustering for Massive data sets







Dr Mamta Anand

PhD from Banasthali Vidyapeeth

American Transcendentalism,  
Indian Spiritualism, Gender  
Studies, Cultural Studies, Concept  
of Human Identity.



Dr Pavan Kumar Kaṅkar

PhD from IIT Roorkee

Vibrations, Condition Monitoring,  
Nonlinear Dynamics, Soft  
Computing



Dr Nihar Ranjan Jena

PhD from BHU

DNA Dynamics, DNA-Protein  
Interaction, Enzyme Catalysis,  
Protein-Inhibitor Binding & Drug  
Design



Dr Vinay Kumar Singh

PhD from IIT Kanpur

Solid State device and Organic  
electronics



Dr Brajesh Pandey  
(upto 26-02-2014)

PhD from IIT Bombay

High-speed CMOS analog and RF  
integrated circuits and systems  
Low- Power Mixed Signal Circuit  
for VLSI ESD and Input-Output  
(I/O) Circuit Issues Novel Device  
structures for VLSI application



Dr Sujoy Mukherjee

PhD from IISc Bangalore

Structural Dynamics, Smart  
Materials and Structures



Dr Amresh Chand Mishra

PhD from IIT Kharagpur

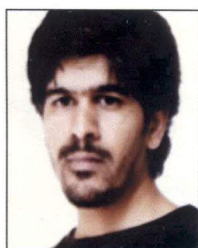
Magnetic thin films,  
Soft magnetic materials,  
Magnetic transport phenomena



Dr Manoj Singh Parihar

PhD from IIT Delhi

RF and Microwave



Dr Jayesh S. Pillai

PhD from Arts et Metiers Paris  
Tech, Angers, France

Visual Communication, Graphic  
Design, Cinema, New Media,  
Virtual Reality



Dr Sachin Kumar Jain

PhD from IIT Kanpur

Power Electronics, Electric Drives,  
Power Systems



Dr Vinod Kumar Jain

PhD from ABV-IIITM Gwalior

Computer Networks, Wireless  
Networks, Machine Learning



Dr Matadeen Bansal

PhD from ABV-IIITM Gwalior

Wireless Communications &  
Networking





Dr Anurag Singh

PhD from IIT Kanpur

Complex Networks



Dr Nihar Kumar Mahato

PhD from IIT Kharagpur

Applied Functional Analysis and  
optimization



Dr Manoj Kumar Panda

PhD from IIT Kanpur

Fluid Dynamics, Numerical  
Analysis



Dr Neeraj Kumar Jaiswal

PhD from ABV-IIITM Gwalior

Applied Physics



Dr Varun Bajaj

PhD from IIT Indore

Biomedical Signal Processing  
(PhD), Microelectronics and VLSI  
design (M.Tech)



Dr Manish Kumar Bajpai

PhD from IIT Kanpur

Parallel Algorithms, Image  
Reconstruction



Dr Mohd Zahid Ansari

PhD from Inha University, Korea

Mechanical Engineering, Design,  
Solid Mechanics, Manufacturing



Mr Akio Haga  
Visiting Professor

Japanese Language

### VISITING FACULTY



Mr Thammana Venkata  
Kumanna Gupta  
(upto 31-12-2013)

Pursuing PhD from IIT Kanpur,  
M Tech (2001) B Tech (1998)

CAD, CAM, Reverse Engineering,  
Abrasive Water Jet, Machining,  
CNC, Rapid Prototyping



Mr K K Balakrishnan

Pursuing PhD from IIT Guwahati

Industrial Design, Sustainable  
Design, Product Service Systems,  
Art & Design



Ms Sangeeta Pandit

Pursuing PhD from IIT Guwahati

Ergonomics and work Physiology



Mr Shekhar Chaterjee

Pursuing PhD from Gujarat  
University

Drawing & Representation, Design  
Skill, Soft Materials Exploration,  
Pattern Development, Lifestyle  
accessory products.





## RESEARCH ENGINEERS



Mr Awadesh Kumar Singh

ME from AIT Thailand

Mechatronics, Design of MEMS  
Devices



Mr K K Soundra Pandian

Pursuing PhD from IIT Patna

Electronics & Communication,  
Instrumentation, Embedded  
Programming, Mechatronics



Mr D S Ramteke

M Tech from IIT Guwahati

Machine Design, Rotor dynamics



Mr B Mukherjee

Pursuing PhD from IIT Bombay

Microwave Electronics



Mr Saket Saurav

BE from RGPV Bhopal

Robotics, Embedded C/C++ and  
VB/VB. NET Programming



Mohd Sharique Husain

BE from RGPV Bhopal

Database Management System



## OFFICE ADMINISTRATION



Mr R P Dwivedi  
MCA, MPM, LLB

Registrar (From 15-10-2013)



Mr Vijay Kumar Dubey  
BE(Civil), MBA

Executive Engineer (Civil)



Mr Prabodh Pandey  
M Sc, MPM

Assistant Registrar  
General Administration  
Establishment  
Public Information Officer  
Official Language Officer



Mr Naresh Joshi  
M Sc

Assistant Registrar  
Finance & Accounts  
Internal Audit



Mr Rizwan Ahmed  
M Sc, PGDHRM

Assistant Registrar  
Purchase & Stores



Mr Santosh Mahobia  
MBA

Assistant Registrar  
Academic  
Students



Ms Menika Patel  
M Lib

Assistant Librarian





## STAFF MEMBERS

### Group B Employees

S.No.	Name (Mr/Ms)	Designation
1.	Mr R K Mishra	JE(Civil)
2.	Mr Sunil Jat	JE (Civil)
3.	Mr Nitesh Kumar	JE(Elect.) (Resigned on 12-09-2013)
4.	Mr Ashok Kumar	Jr Superintendent (On Lien)
5.	Mr Aloysius Beenu Michael	Sr Stenographer
6.	Ms Megha Kushwaha	Sr Information Library Assistant

### Group C Employees

S. No.	Name (Mr/Ms)	Designation
1.	Mr Sandeep Awasthi	UDC
2.	Mr Anil Kumar	UDC
3.	Mr Shailesh Sharma	UDC
4.	Mr Praveen Armo	UDC
5.	Mr Dev Krishna Jha	Dy Account Assistant
6.	Ms Sapna A Wankhede	Library Assistant
7.	Mr Kamlesh Warkhade	Care Taker
8.	Mr Akhilesh Shrivastava	TA
9.	Mr Alok Kulkarni	TA
10.	Ms Bharti Kewat	TA
11.	Mr Rajesh Kumar Singh	TA
12.	Mr Brajesh Kumar	TA
13.	Mr Piyush Kumar Usrethe	TA
14.	Mr Anup Bajpai	TA
15.	Mr Ghanshyam Meshram	TA
16.	Mr Mayur S Mangole	TA
17.	Mr Anupam Shukla	TA



18.	Mr Rajveer	TA
19.	Mr Varun Dubey	LA
20.	Mr Jagat Singh	LA
21.	Ms Aayesha B Mansoori	LA
22.	Mr Ram Dularey Vishwakarma	LA
23.	Mr Robinson George Markam	LA
24.	Mr Anup Gupta	LA
25.	Mr Tabish Khan	LA
26.	Mr Manoj Tigga	LA
27.	Mr Simanta Kar Gupta	LDC
28.	Mr Pankaj Prajapati	LDC
29.	Mr Avashesh Kumar Pal	LDC
30.	Mr Prashant Agnihotri	LDC
31.	Mr Dilip Rangare	LDC
32.	Mr Rajesh Kumar	LDC
33.	Mr Adesh Kumar	LDC
34.	Mr Kanhaiya Lal Barmaiya	LDC
35.	Mr Rajesh	LDC
36.	Mr Mohd Izrael Khan	Driver
37.	Mr Ganesh Prasad Kashyap	Driver
38.	Mr Milind P Bopde	Electrician





## ACADEMIC AND RESEARCH ACTIVITIES

PDPM IIITDM Jabalpur was established in 2005 by the Ministry of Human Resource Development, Government of India with a unique mission of creating a centre of excellence in education and R&D activities on IT enabled Design and Manufacturing. Since its inception, PDPM IIITDM gives emphasis on synthesis, creativity, hands on experience, innovation, Communication and entrepreneurship. These qualities along with basic knowledge of design and manufacturing technologies form the ethos of education at the Institute the institute has been imparting quality education and training with truly interdisciplinary approach both at undergraduate and post graduate levels. In essence PDPM IIITDM Jabalpur strengthens and enhances academic activities with the following aims and objectives-

### Aims

- a) To propel R&D activities in Design and Manufacturing that become catalyst for devising innovative solutions to societal challenges.
- b) To increase cooperation between IIITDMJ and other academic institutions of higher learning in identified areas of mutual interests in the broad field of Design and Manufacturing.
- c) To create commercial opportunities and build sustainable partnership with Indian industry.

### Objectives

- a) To intensify translational research on healthcare, security and consumer products for Indian and Asian markets.
- b) To focus on technologies for improving and diversifying the agricultural productivity of the country.
- c) To promote R&D activities on green energy systems and devices.
- d) To facilitate interdisciplinary design-focused education, mind to market research and entrepreneurial activities.
- e) To act as a hub for a meaningful collaboration and networking between academic partner institutions, design professionals and industry in a hub and spoke model.

### Academic Programmes

**Undergraduate programmes-** The Institute has a unique undergraduate curriculum for imparting education in the following three disciplines of engineering-

- (I) Computer Science and Engineering (CSE)
- (ii) Electronics and Communication Engineering (ECE)
- (iii) Mechanical Engineering (ME)

**Postgraduate programmes-** The Institute runs M.Tech. and Ph.D. programmes in the following disciplines-

- Computer Science and Engineering (CSE)
- Electronics and Communication Engineering (ECE)
- Mechanical Engineering (ME)

In addition, the Institute also offers M.Tech. in Mechatronics, Master of Design and Ph.D. Programmes in Design and Ph.D. programmes in Natural Sciences





Inaugural Session of Mini Design workshop on Nature Inspired Design (December 6-7, 2013)

Students preparing for Robotics Competition



BOG member Shri D M Gupta interacting with Students

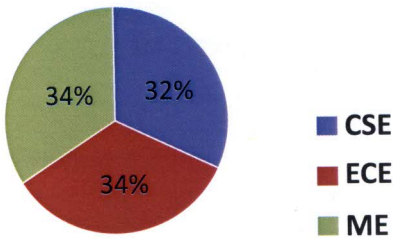




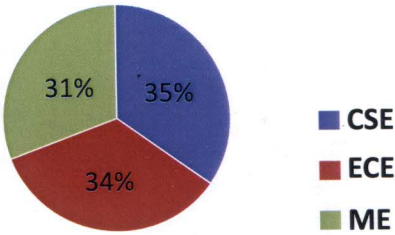
B. Tech. Programme

Students Enrolment

B.Tech. 2010 batch-Branch wise enrolment- Total Students 215



B.Tech. 2011 batch-Branch wise enrolment- Total Students 229



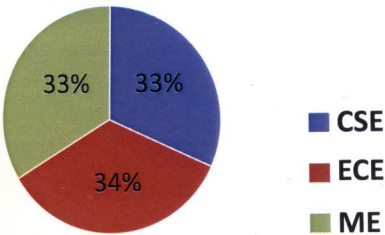
2010 Batch

Branch	OP	OBC	SC	ST	Total
CSE	36	20	09	03	68
ECE	39	21	10	04	74
ME	38	21	10	04	73
Total					215

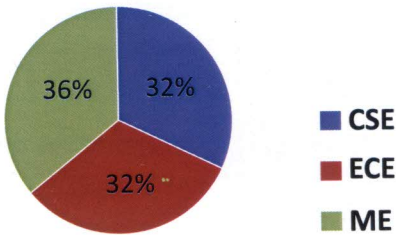
2011 Batch

Branch	OP	OBC	SC	ST	Total
CSE	45	20	08	06	79
ECE	39	22	11	06	78
ME	42	12	11	07	72
Total					229

B.Tech. 2012 batch-Branch wise enrolment- Total Students 251



B.Tech. 2013 batch-Branch wise enrolment- Total Students 228



2012 Batch

Branch	OP	OBC	SC	ST	Total
CSE	41	23	13	06	83
ECE	41	24	13	07	85
ME	40	23	13	07	83
Total					251

2013 Batch

Branch	OP	OBC	SC	ST	Total
CSE	34	24	10	05	73
ECE	34	20	12	06	72
ME	40	25	12	06	83
Total					228





## Post Graduate Programmes

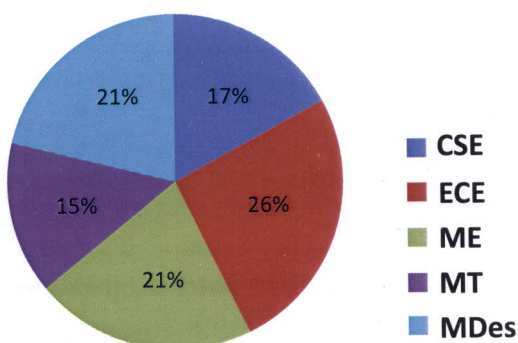
Institute offers Master's degree programmes in:

(a) **M.Tech.**

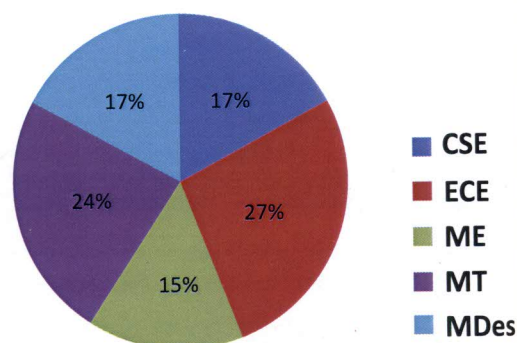
- (i) Computer Science & Engineering (CSE)
- (ii) Electronics & Communication Engineering (ECE)
- (iii) Mechanical Engineering (ME)
- (iv) Mechatronics (MT)

(b) **M.Des. Master of Design**

**M.Tech./M.Des. Programmes 2012 Batch**  
**Total Students-53**



**M.Tech./M.Des. Programmes 2013 Batch**  
**Total Students-52**



**2012 Batch**

Branch	OP	OBC	SC	ST	Total
CSE	05	03	01	00	09
ECE	07	04	02	01	14
ME	07	03	01	00	11
MT	04	03	01	00	08
MDes	06	02	03	00	11
Total	29	15	08	01	53

**2013 Batch**

Branch	OP	OBC	SC	ST	Total
CSE	06	01	01	01	09
ECE	07	03	03	01	14
ME	04	03	01	00	08
MT	08	02	01	01	12
MDes	03	01	04	01	09
Total	28	10	10	04	52





## Ph.D. Programme

The Institute offers Ph.D. in

1. Computer Science & Engineering (CSE)
2. Electronics & Communication Engineering (ECE)
3. Mechanical Engineering (ME)
4. Design
5. Natural Science (Started from July 2013 session onwards)

### Students Enrolment in Ph.D.

**2008 Batch**

Branch	OP	SC	ST	Total
CSE	01	00	00	01
ECE	00	00	00	00
ME	01	00	00	01
Design	00	00	00	00
<b>Total</b>	<b>02</b>	<b>00</b>	<b>00</b>	<b>02</b>

**2009 Batch**

Branch	OP	SC	ST	Total
CSE	01	00	00	01
ECE	01	00	00	01
ME	01	00	00	01
Design	00	00	00	00
<b>Total</b>	<b>03</b>	<b>00</b>	<b>00</b>	<b>03</b>

**2010 Batch**

Branch	OP	SC	ST	Total
CSE	03	00	00	03
ECE	00	00	00	00
ME	02	01	00	03
Design	00	00	00	00
<b>Total</b>	<b>05</b>	<b>01</b>	<b>00</b>	<b>06</b>

**2011 Batch**

Branch	OP	OBC	SC	ST	Total
CSE	05	01	01	00	07
ECE	07	01	03	00	11
ME	05	02	02	00	09
Design	01	00	01	00	02
<b>Total</b>	<b>18</b>	<b>04</b>	<b>07</b>	<b>00</b>	<b>29</b>

**2012 Batch**

Branch	OP	OBC	SC	ST	Total
CSE	03	01	00	00	04
ECE	05	02	02	01	10
ME	03	00	00	00	03
Design	00	00	00	00	00
<b>Total</b>	<b>11</b>	<b>03</b>	<b>02</b>	<b>01</b>	<b>17</b>

**2013 Batch**

Branch	OP	OBC	SC	ST	Total
CSE	02	01	00	00	03
ECE	07	00	01	00	08
ME	02	00	00	00	02
Design	00	00	01	00	01
NS	00	00	00	00	00
<b>Total</b>	<b>11</b>	<b>01</b>	<b>02</b>	<b>00</b>	<b>14</b>





## Academic Performance Evaluation Committee Report – Undergraduate

### Semester II (2012-13)

Batch	No. of Students	No. of Students passed	No. of Students Terminated
2010	224	219	05
2011	251	245	06
2012	253	253	00

### Semester I (2013-14)

Batch	No. of Students	No. of Students passed	No. of Students Terminated
2010	215	212	03
2011	229	223	06
2012	251	251	00
2013	228	228	00

## Academic Performance Evaluation Committee Report – Post Graduate

### Semester II (2012-13)

Batch	No. of Students	No. of Students passed	No. of Students Terminated
2011	43	39	04
2012	55	53	02

### Semester I (2013-14)

Batch	No. of Students	No. of Students passed	No. of Students Terminated
2012	53	51	02
2013	52	48	04





## RESEARCH PROJECTS 2013-14

### Research Projects Approved/Completed/Ongoing

Sl. No.	Project Title	Duration	Investigator	Funding Agency	Amount in ₹	Status
1	Constrained Curve Drawing Algorithms for Robot Motion Planning.	2010-13	PI: Prof A Ojha Co-PI: Prof Tanuja Sheorey	DST, Ministry of Science & Technology, Government of India	9.23 lakhs	Ongoing
2	Electrical Characterization of NANO SCALE MOSFET's Scalability issues and Possible Solutions.	2010-13	Dr Ashutosh Srivastava	DST, Ministry of Science & Technology, Government of India	15 Lakhs	Completed
3	Virtual Lab on Manufacturing Processes.	2010-12	PI: Prof Vijay Kumar Gupta Co-PI(s): Prof Puneet Tandon, Prof Tanuja Sheorey	MHRD, Govt. of India	40 Lakhs	Ongoing
4	Virtual Lab on Automated System.	2010-12	PI: Prof Tanuja Sheorey Co-PI(s): Prof Vijay Kumar Gupta, Prof Puneet Tandon	MHRD, Govt. of India	40 Lakhs	Ongoing
5	Brain Controlled Mobile Robot.	2012-14	PI: Dr P K Padhy Co-PI: Prof Vijay Kumar Gupta	DST, Ministry of Science & Technology, Government of India	18.50 Lakhs	Ongoing



6	Process Development for the Fabrication of Free Form Component Through Incremental Sheet forming.	2012-15	PI: Prof P Tandon Co-PI: Dr Prashant Kumar Jain	BRNS, Department of Atomic Energy, Government of India	78.45 Lakhs	Ongoing
7	Wavelets and Operational Matrix based Techniques for Integral and Differential Equations.	2012-15	PI: Dr Rajesh K Pandey	DST, Ministry of Science & Technology, Government of India	10.22 Lakhs	Ongoing
8	Production on Course Ware e- Content Development for Post-Graduate Subjects. (E-PG-Pathshala)	2012-14	Prof A Ojha	University Grants Commission, New Delhi	112.00 Lakhs	Ongoing
9	Time-Varying Harmonics and Interharmonics Estimation In Real Time for Online Applications	2013-16	PI: Dr Sachin Kumar Jain	DST, Ministry of Science & Technology, Government of India	19.75 Lakhs	Ongoing





## RESEARCH PUBLICATIONS 2013-14

### Publications in Peer Reviewed Journals 2013-14

1. Ahirwal, M.K., Kumar, A., Singh, G.K., Improved range selection method for evolutionary algorithm based adaptive filtering of EEG/ERP signals (2014) *Neurocomputing*, 144, pp. 282-294.
2. Jena, N.R., Mark, A.E., Mishra, P.C., Does tautomerization of FapyG influence its mutagenicity? (2014) *ChemPhysChem*, 15 (9), pp. 1779-1784.
3. Pandey, R.K., Suman, S., Singh, K.K., Singh, O.P., An approximate method for Abel inversion using Chebyshev polynomials (2014) *Applied Mathematics and Computation*, 237, pp. 120-132.
4. Bhandari, A.K., Singh, V.K., Kumar, A., Singh, G.K., Cuckoo search algorithm and wind driven optimization based study of satellite image segmentation for multilevel thresholding using Kapur's entropy (2014) *Expert Systems with Applications*, 41 (7), pp. 3538-3560.
5. Srivastava, P., Jaiswal, N.K., Tripathi, G.K., Chlorine sensing properties of zigzag boron nitride nanoribbons (2014) *Solid State Communications*, 185, pp. 41-46.
6. Kumar, A., Suman, S., Singh, G.K., A new closed form method for design of variable bandwidth linear phase FIR filter using different polynomials (2014) *AEU - International Journal of Electronics and Communications*, 68 (4), pp. 351-360.
7. Bhandari, A.K., Soni, V., Kumar, A., Singh, G.K., Artificial Bee Colony-based satellite image contrast and brightness enhancement technique using DWT-SVD (2014) *International Journal of Remote Sensing*, 35 (5), pp. 1601-1624.
8. Kumar, H., Ranjit Kumar, T.A., Amarnath, M., Sugumaran, V., Fault diagnosis of bearings through vibration signal using Bayes classifiers (2014) *International Journal of Computer Aided Engineering and Technology*, 6 (1), pp. 14-28.
9. Ahirwal, M.K., Kumar, A., Singh, G.K., Adaptive filtering of EEG/ERP through Bounded Range Artificial Bee Colony (BR-ABC) algorithm (2014) *Digital Signal Processing: A Review Journal*, 25 (1), pp. 164-172.
10. Ahirwal, M.K., Kumar, A., Singh, G.K., Adaptive filtering of EEG/ERP through noise cancellers using an improved PSO algorithm (2014) *Swarm and Evolutionary Computation*, 14, pp. 76-91.
11. Mangla, O., Srivastava, A., Malhotra, Y., Ostrikov, K., Lanthanum oxide nanostructured films synthesized using hot dense and extremely non-equilibrium plasma for nanoelectronic device applications (2014) *Journal of Materials Science*, 49 (4), pp. 1594-1605.
12. Sahu, C., Swami, P., Sharma, S., Singh, J., Simplified drain current model for pinch-off double gate junctionless transistor (2014) *Electronics Letters*, 50 (2), pp. 116-118.
13. Rathore, S.S., Gupta, A., A comparative study of feature-ranking and feature-subset selection techniques for improved fault prediction (2014) *ACM International Conference Proceeding Series*.





14. Baudha, S., Kumar, V.D., Miniaturized dual broadband printed slot antenna with parasitic slot and patch (2014) *Microwave and Optical Technology Letters*, 56 (10), pp. 2260-2265.
15. Kumar, R., Kumar, A., Akhil, G., Singh, A., Jafri, S.N.H., Computational efficient method for ECG signal compression based on modified SPIHT technique (2014) *International Journal of Biomedical Engineering and Technology*, 15 (2), pp. 173-188.
16. Sahu, C., Singh, J., Charge-plasma based process variation immune junctionless transistor (2014) *IEEE Electron Device Letters*, 35 (3), art. no. 6712062, pp. 411-413.
17. Kiran, C.P., Clement, S., Chelladurai, H., Experimental investigation of quality interactions in material processing (2014) *ARPN Journal of Engineering and Applied Sciences*, 9 (4), pp. 505-514.
18. Mishra, A.C., Effect of composition on magnetic softness and magnetoimpedance of electrodeposited NiFe/Cu (2014) *Indian Journal of Physics*, 88 (4), pp. 367-373.
19. Bhandari, A.K., Soni, V., Kumar, A., Singh, G.K., Cuckoo search algorithm based satellite image contrast and brightness enhancement using DWT-SVD (2014) *ISA Transactions*, 53 (4), pp. 1286-1296.
20. Rai, P., Khanna, P., A gender classification system robust to occlusion using Gabor features based (2D)2PCA (2014) *Journal of Visual Communication and Image Representation*, 25 (5), pp. 1118-1129.
21. Kharche, S., Reddy, G.S., Mukherjee, B., Gupta, R., Mukherjee, J., MIMO antenna for Bluetooth, Wi-Fi, Wi-MAX and UWB applications (2014) *Progress In Electromagnetics Research C*, 52, pp. 53-62.
22. Srivastava, P., Jaiswal, N.K., Sharma, V., First-principles investigation of armchair boron nitride nanoribbons for sensing PH<sub>3</sub> gas molecules (2014) *Superlattices and Microstructures*, 73, pp. 350-358.
23. Shrivastava, A., Singh, J., Dual-sided doped memristor and its SPICE modelling for improved electrical properties (2014) *Proceedings - International Symposium on Quality Electronic Design ISQED*, art. no. 6783342, pp. 317-322.
24. Kumar, A., Kuldeep, B., Design of cosine modulated pseudo QMF bank using modified Dolph-Chebyshev window (2014) *International Journal of Signal and Imaging Systems Engineering*, 7 (2), pp. 126-133.
25. Jha, R.K., Chouhan, R., Noise-induced contrast enhancement using stochastic resonance on singular values (2014) *Signal, Image and Video Processing*, 8 (2), pp. 339-347.
26. B. Mukherjee, P. Patel, J. Mukherjee, "Hemispherical Dielectric Resonator Antenna based on Apollonian Gasket of circles – A Fractal approach", *IEEE Transactions on Antennas and Propagation*, Vol. 62, No. 1, pp. 40–47, 2014.
27. Sambhav, K., Tandon, Puneet & Dhande, S.G., "Force modeling for generic profile of drills", Submitted to *ASME Journal of Manufacturing Science and Engineering*, 2014, Vol. 136, No. 4, pp. 041019-1-9. doi: 10.1115/1.4027595.





28. Jain, Richa, Vasantha Kumar, M., and Tandon, Puneet, "Optimization methodology for beam gauges of the bus body for weight reduction", *Applied and Computational Mechanics*, 2014, Vol. 8, No. 1, pp. 47-62.
29. Tiwari, Varun, Jain, P.K. and Tandon, Puneet, "Design decision automation support through knowledge template CAD model", *Computer Aided Design & Applications*, 2014, Vol. 12, No. 1, pp. DOI: 10.1080/16864360.2014.949580.
30. Gupta, Vikas, Bajpai, V.K. & Tandon, Puneet, "Slice Generation and Data Retrieval Algorithm for Rapid Manufacturing of Heterogeneous Objects", *Computer Aided Design & Applications*, 2014, Vol. 11, No. 3, pp. 255-262. DOI: 10.1080/16864360.2014.863483
31. Tyagi, S., Khanna, P., Face verification and identification using DCT-NNDA and SIFT with score-level fusion (2013) *International Journal of Biomedical Engineering and Technology*, 13 (2), pp. 154-176.
32. Upadhyay, R., Kankar, P.K., Padhy, P.K., Gupta, V.K., Feature extraction and classification of imagined motor movement Electroencephalogram signals (2013) *International Journal of Biomedical Engineering and Technology*, 13 (2), pp. 133-146.
33. Taufik, M., Jain, P.K., Role of build orientation in layered manufacturing: A review (2013) *International Journal of Manufacturing Technology and Management*, 27 (1-3), pp. 47-73.
34. Nema, S., Padhy, P.K., PI-PD controller for stable and unstable processes (2013) *International Journal of Systems, Control and Communications*, 5 (2), pp. 156-165.
35. Kumar, A., Ojha, A., Subdivision-based corridor map method for path planning (2013) *International Journal of Robotics and Automation*, 28 (4), pp. 331-339.
36. Verma, A., Pandey, A., Mishra, V., Singh, T., Alam, A., Kumar, V.D., Investigation of logarithmic spiral nanoantennas at optical frequencies (2013) *Journal of Modern Optics*, 60 (21), pp. 1950-1957.
37. Shukla, D., Jha, R.K., Aizawa, K., A novel approach for combined rotational and translational motion estimation using Frame Projection Warping (2013) *IEEE VCIP 2013 - 2013 IEEE International Conference on Visual Communications and Image Processing*, art. no. 6706396.
38. Ahirwal, M.K., Kumar, A., Singh, G.K., Descendent adaptive noise cancellers to improve SNR of contaminated EEG with gradient-based and evolutionary approach (2013) *International Journal of Biomedical Engineering and Technology*, 13 (1), pp. 49-68.
39. Mukherjee, B., Patel, P., Mukherjee, J., A novel cup-shaped inverted hemispherical dielectric resonator antenna for wideband applications (2013) *IEEE Antennas and Wireless Propagation Letters*, 12, art. no. 6615942, pp. 1240-1243.
40. Iena, N.R., Mishra, P.C., IsFapyG mutagenic?: Evidence from the DFT study (2013) *ChemPhysChem*, 14 (14), pp. 3263-3270.
41. Chaganty, A., Murthy, G.R., Chilamkurti, N., Rho, S., A novel levelled and sectored based hybrid protocol for wireless sensor networks (2013) *Sensor Letters*, 11 (9), pp. 1715-1720.





42. Anand, M., Tempestuous turbulence in Shakespeare's Hamlet, Othello and Macbeth (2013) IUP Journal of English Studies, 8 (3), pp. 70-79.
43. Kumar Singh, V., Mazhari, B., Measurement of threshold voltage in organic thin film transistors(2013) Applied Physics Letters, 102 (25), art. no. 253304.
44. Mukherjee, B., Raj, A., Investigation of a hemispherical dielectric resonator antenna for enhanced bandwidth of operation (2013) International Journal of Applied Electromagnetics and Mechanics, 41 (4), pp. 457-466.
45. Mukherjee, B., Tiwari, S., Samariya, A.L., Improvement in radiation losses of spur line resonators based LPF on an EBG substrate (2013) International Journal of Applied Electromagnetics and Mechanics, 41 (4), pp. 447-455.
46. Khan, M.R., Tandon, P., Mathematical modeling of a generic multi-profile form milling cutter (2013) Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 227 (5), pp. 1036-1046.
47. Pal, V.K., Tandon, P., Identification of the role of machinability and milling depth on machining time in controlled depth milling using abrasive water jet (2013) International Journal of Advanced Manufacturing Technology, 66 (5-8), pp. 877-881.
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## CONVOCATION 2013

The fifth convocation of PDPM IITDM Jabalpur was held on August 25, 2013. The occasion was graced by Mr T V Mohandas Pai, Chairman, Manipal Education Society, as the Chief Guest. Shri Ashok Thakur, Secretary, Department of Higher Education, Ministry of HRD, Govt. of India was the Guest of Honour and Prof S V Raghavan, Scientific Secretary, office of the Principal Scientific Advisor to the Govt. of India and Chairman Board of Governors of the Institute presided over the function. Parents and guardians of the graduating students and important dignitaries from the city of Jabalpur, also attended the event. Total numbers of degrees awarded were 149 (B.Tech. - 117, M.Tech. - 26, M.Des. - 5 and Ph.D. - 1). Branch wise details of award of degrees are as follows -

### Bachelor of Technology (B. Tech.)

S.No	Discipline	Total
1	Computer Science & Engineering	18
2	Electronics & Communication Engineering	47
3	Mechanical Engineering	52
Total		117

### Master of Technology (M. Tech.)

S.No	Discipline	Total
1	Computer Science & Engineering	05
2	Electronics & Communication Engineering	12
3	Mechanical Engineering	03
4	Mechatronics	06
5	Design	05
Total		31

### Doctor of Philosophy (Ph.D.)

S.No	Discipline	Total
1	Electronics & Communication Engineering	01

Apart from this, following medals and prizes were also awarded for the outstanding performance of the students.





S.No.	Name of Medal/Prize	Name of recipient	Criterion
1	Chairman's Gold Medal for the year 2013	Komal	Best Academic Performance in Graduating Class among all Discipline of the Undergraduate Programme
2	Director's Silver Medal	Shobhit Rajesh Sood	Outstanding Performance in Games and Sports in the Graduating Class among all Disciplines of the Undergraduate Programme
3	Director's Silver Medal	Kaviti Keshav Kumar	Outstanding Performance in Cultural Activities in the Graduating Class among all Disciplines of the Undergraduate Programme
4	IIITDM Proficiency Prizes	Harshit Tiwari	Best Project in Computer Science and Engineering of the Undergraduate Programme
5	IIITDM Proficiency Prizes	Rahul Kumar	Best Project in Electronics & Communication Engineering of the Undergraduate Programme
6	IIITDM Proficiency Prizes	Shobhit Goel	Best Project in Electronics & Communication Engineering of the Undergraduate Programme
7	IIITDM Proficiency Prizes	Ankit Malik	Best Project in Electronics & Communication Engineering of the Undergraduate Programme
8	IIITDM Proficiency Prizes	Nand Kishor Mishra	Best Project in Mechanical Engineering of the Undergraduate Programme
9	IIITDM Proficiency Prizes	Santosh Singh Rathore	Best Thesis in Computer Science and Engineering of the Postgraduate Programme
10	IIITDM Proficiency Prizes	Anand Kumar	Best Thesis in Electronics & Communication Engineering of the Postgraduate Programme
11	Academic Performance Proficiency Silver Medal	Simardeep Singh Jolly	Outstanding Academic Performance in Computer Science and Engineering of the Undergraduate Programme
12	Academic Performance Proficiency Silver Medal	Komal	Outstanding Academic Performance in Electronics & Communication Engineering of the Undergraduate Programme
13	Academic Performance Proficiency Silver Medal	Santosh Kumar Maurya	Outstanding Academic Performance in Mechanical Engineering of the Undergraduate Programme





Convocation 2013:Academic Procession



Prof S V Raghavan addressing to  
graduating students at the Convocation 2013



Student Komal receiving Gold Medal from the  
Chairman BOG, Prof S V Raghavan



Student Rajim Gupta being awarded  
M.Tech. degree by the Director



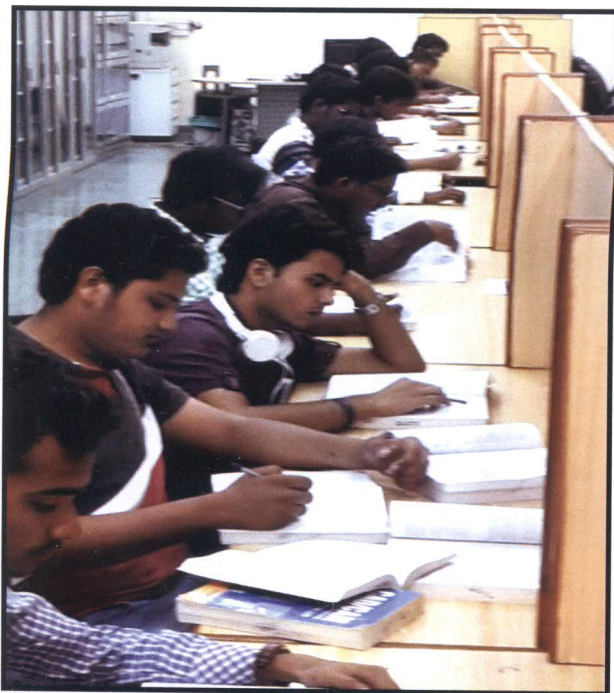
Convocation 2013:Graduating Students





## LIBRARY

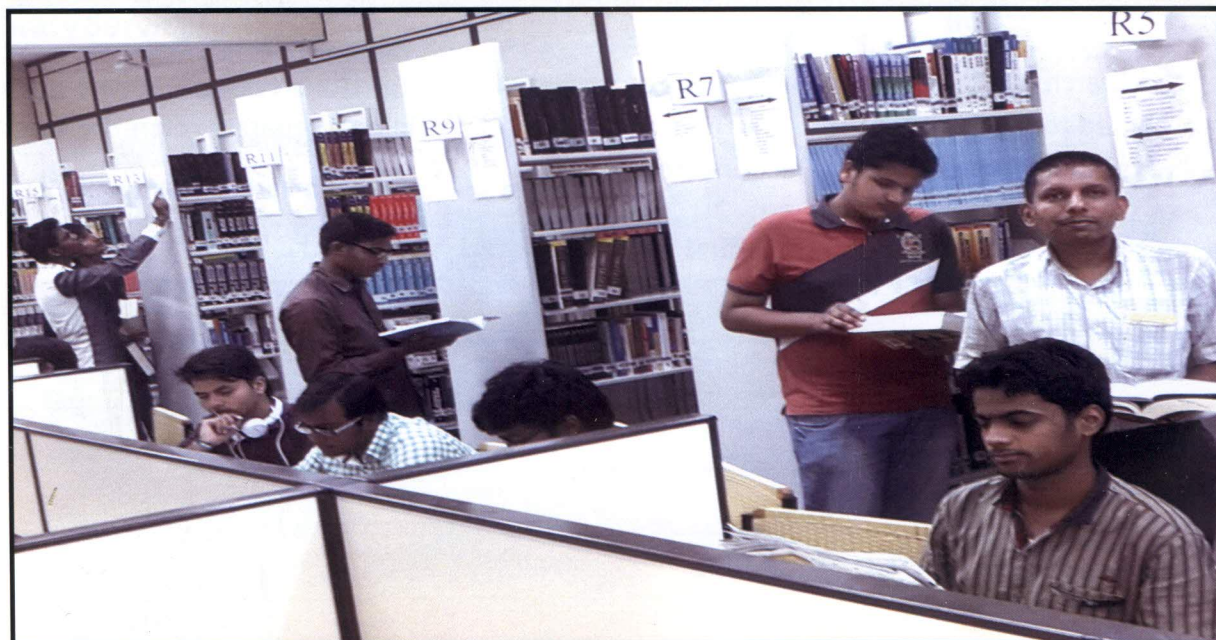
The IIITDM Jabalpur Library with its modern collection of knowledge resources and innovative information services plays an essential role in the intellectual pursuits, faculty and the surrounding academic community. The institute library is a hybrid library and provides services in mixed mode, paper and electronic environment, particularly in a co-ordinated way. Library is well equipped with integrated library system, library automation software “SOFTGRANTH” is used for various library operations and for providing better library services to users.



### Area:

Our institute library is very spacious and possesses a soothing atmosphere. Total area of library is 234 Sqmtr. and which is divided into two parts, one is stack area (191 Sqmtr.) and another is reference area (43 Sqmtr.). Seating capacity of our library is 100 at a time including 04 Nos. PCs available for Web OPAC and E-resource.





## Collection Development and Management

Collection development is one of the important functions of the library and plays a vital role in supporting academic curriculum and research activities of students, research scholars, faculties and staff. The total collection of library as on 1<sup>st</sup> April 2013 to 31<sup>st</sup> March 2014 is as follows:

Medium	Collection	In Stock On 31 <sup>st</sup> March 2013	Procured In 2013-14	Total
<b>Documentary Sources (Print)</b>	Books	10657	460	11117
	Gratis Books	147	72	219
	Gratis other item	0	174	174
	Print Journal	2	3	5
	Project Reports	49	23	72
	News Papers	15	1 (Hindi)	16 (E-9, H-7)
	Magazines	32	6	38
<b>Non Documentary Sources (Non-Print)</b>	Online E-Resource (E-Journal)	63 for the year 2014		
	CDs/DVD/Floppy (Received with Project Reports, Books & Magazines)	1116	93	1209
<b>Archives (old)</b>	Bound Volumes of Journals	56	35	91
	Bound Volumes of Magazines	0	51	51





## Reference Collection

In March 2013 library space was merged with a class room, afterwards reference section of library shifted to that merged area. Now library has been maintaining a separate reference cum text reference section. Our reference collections are:

Sl. No.	Reference Source	Total Quantity
1.	Encyclopaedia	35
2.	Directories	02
3.	Handbook	168
4.	Dictionaries	34
5.	Conference Proceedings	07
6.	Statistical Sources	09
7.	Annual Report	01







### Library Services:

1. **WebOPAC:** Book search and user details are provided using WebOPAC.
2. **Reference Services:** It is personal assistance to users in locating and finding information or document of their choice.
3. **Information Alert Services:** Library time to time alert to the users about every latest information regarding:
  - A) List of new arrivals books.
  - B) List of new E-Resources.
  - C) News items display.
  - D) Faculty and student publications.
  - E) Display of forthcoming conferences, other national and international events.
4. **Newspaper Clipping Services:** Library also preserved maximum our Institute related news published in newspaper subscribed by Institute as a clipping for future use and information.

### Details of the expenditure

Sl.No.	Items	2013-14 : Expenditure in ₹
1.	Books	4,10,467.00 (approx.)
2.	Journals & Magazines	1,57,95,484.00(approx.)
3.	Newspapers	14,532.00





## STUDENTS' LIFE

The Institute has a residential campus and hence students' life at the campus needs to be supported by good infrastructure and facilities for an overall grooming and development. Students of the Institute actively participate in many extra-curricular activities and they also organize various events. These activities are organized under the umbrella of students' Gymkhana, which is a platform for interaction among students on various fronts. The gymkhana is self-governed, responsible and accountable students' body under the mentorship of faculty. Students' Gymkhana is governed by the students Senate that is constituted in a democratic way through elections among students. Student Senate members are elected through direct ballot voting among the members of the General Body, every year in the first week of January. Every registered student is by default a member of students' Gymkhana and has the right to vote.

The students' Senate has 2-3 representatives from each batch. There are approximately 50-60 members in the Students' Senate from all batches of UG and PG programme. Various clubs for cultural, sports and Science & Technology work under Students' Gymkhana. The coordinators and Co-coordinators are selected based on their skills and past performance in the Institute by the members of that club and duly ratified by Students' Senate. All members of the Students Gymkhana who have their CPI > 6.5 are eligible to make their candidature for the students' Senate. All members of the Students' Gymkhana who have their CPI = 6.0 are eligible to become mentors, coordinators, co-coordinators for various clubs. A senior faculty member designated as Dean, Students, looks after and guides the student's representatives in organizing gymkhana activities throughout the year. Apart from this, three faculty members designated as counsellors, look after various Cultural, Sports and Science & Technology activities as well as various annual festivals organized by the students' gymkhana. For the year 2013-14, the faculty mentors were as follows-

Dr Sujoy Mukherjee, Cultural Counselor

Dr Neeraj Jaiswal and Dr M.K. Panda, Technical Counselor

Dr Anurag Singh, Sports Counselor

### Various Clubs constituted under Students Gymkhana

Students have constituted various clubs under three different categories. These categories are (i) Cultural Clubs (ii) Science and Technology Clubs and (iii) Sports clubs. The Institute being a residential campus, students get ample opportunities to enhance their overall personality by participating in these club activities. Students can be member of a number of clubs besides maintaining their academics. The aim of each club is to nurture talent by imparting training and organizing various events to showcase their talents. These training sessions are organized by Gymkhana students during their off time like late





evening hours and weekends. Besides, clubs also organize several extra-curricular and co-curricular competitions throughout the year in a planned way. The main objective of the club activities is a holistic development of the students' personality. Moreover, these activities help nurture the social, cultural, sportsman and technical spirit among the students.

## A. Cultural Clubs :

### Saaz

Music Club is the heart and soul of club activities and is a big hit among students because of its untiring efforts in creating an atmosphere of cultural fusion and festivity in college. Saaz-The Music Club exhibits its entire spectrum of colors during Tarang-The Cultural Fest of institute IIIT DM Jabalpur. It organizes various competitions like AAVEG-The Rock Band Show, Antakshari, Solo Singing, Instrumental Raga etc.



Students performing in an event organised by Saaz club

### Jazzbaat

A hub for all fun lovers, every year it produces a wide variety of performances ranging from one act plays to street plays and mimes to broad ways and each time it astounds us all with it's creativity and heart winning acts.

### Abhivyakti

The aim of this club is to bridge the gap between the enthusiastic students in expressing their emotions through art, by inculcating the knowledge of the various techniques and methods and to





expand their perspective in the field of art. The intention is to develop a mature understanding of art and enjoy it while doing it.

### **Literary Club**

Basic objective of the club to inculcate within its members elite oratory skills, inter-personnel skills, interpersonnel skills, communication skills needed for personal interviews, group discussions, etc. and, to help the members explore the depths of literary criticism and analysis as well as develop a sense of literary appreciation. Participating in such activities helps students to combat with the fear of stage performance, and helps in their intellectual development.

## **B. Science & Technology Clubs :**

### **Programming Club**

Programming Club is a center for computer enthusiasts, programmers and people who aspire to be either of the two. This fantastic club accepts new members regardless of programming/computer background. This club organizes activities related to Linux, Gnome, and Open Source software in general.

### **Automotive Fabrication Club**

One of the most important qualities of the Club is its diversity with students from almost all disciplines of the institute. It provides a platform for students to share and increase their engineering know-how through increased interaction between students at all levels, group activity, lectures, workshops, brainstorming sessions etc.

### **Robotics Club**

The main aim of Robotics Club is to develop and stimulate interest in robotics among the students of the Institute. The Club offers indispensable guidance, workshops and tutorials along with tools, equipment, components and workspace yet it also stands by the subtle acronym of TEAM - 'Together Everyone Achieves More'.

### **Electronics Club**

This club is a common platform for students from various disciplines to learn and work on electronic circuits, design various circuits useful in a plenty of applications.

### **CAD Club**

This club gives unlimited opportunities to learn various CAD tools and design their own products, devices and systems using CAD software.





**Shri Thakur, Secretary, Department of Higher Education and  
Mr Pai in the Mechatronics Lab**

### **Shutterbox- Photography Club**

This club helps nurture photography hobby of students. The club organizes photo-walks to various places of Jabalpur. These places include Dumna nature reserve, MadanMahal, Gwarighat, Bhedaghat, etc. Various events organised in the Institute are also captured beautifully by the club members.

### **Web-Designing Club**

Web Design club provides an opportunity to reveal the potential and innovative ideas and also sharpens the skills not only to design, but also to develop a website, more precisely a web application.

## **C. Sports Clubs :**

### **Cricket Club**

Cricket club of IIITDMJ holds activities throughout the year and it enjoys active membership from all the batches of the institute. Cricket club organizes deuce ball matches twice a year, hall wise and year wise. Another event organized by the club is 'Cosco' ball tournament. It also takes part in GUSTO (IIITDMJ Sports festival) and participates in all sports activities organized by the Students Gymkhana.

### **Athletics Club**

This club encourages students stay fit and healthy. Every student is encouraged to take part in some kind of athletic activity.

Other clubs in sport category are badminton club, chess club, lawn tennis club, football club, basketball club, carom club, throw ball, handball and volleyball clubs.





## Students Senate Members 2013-14

Student Senate Members 2013-14				
Sl. No.	Roll No.	Name	Programme	E-mail ID
1	1220163	VIKAS KUMAR MALVIYA	Ph.D. (CSE)	vikashk@iiitdmj.ac.in
2	1220161	KOUSHLENDRA KUMAR SINGH	Ph.D. (CSE)	koushlandras@iiitdmj.ac.in
3	1110263	JUNED AHMED	M.Tech. (CSE)	1110263@iiitdmj.ac.in
4	1110461	RAVINDRA SINGH	Ph.D. (Design)	ravindrasi@iiitdmj.ac.in
5	1210410	ROHIT SINGH	M.Des.	1210410@iiitdmj.ac.in
6	1220101	AKASH KUMAR TRIPATHI	M.Tech. (CSE)	1220101@iiitdmj.ac.in
7	1220131	HARKEERAT KAUR	M.Tech. (CSE)	harkeerat.kaur@iiitdmj.ac.in
8	1220208	ISHU AGRAWAL	M.Tech. (ECE)	1220208@iiitdmj.ac.in
9	2009011	ANKUR AGRAWAL	B.Tech. (ECE)	ankur09011@iiitdmj.ac.in
10	2009012	ANUBHAV MITTAL	B.Tech. (CSE)	anubhav09012@iiitdmj.ac.in
11	2009028	DHAWAL VADODARIYA	B.Tech. (ME)	dhawal09028@iiitdmj.ac.in
12	2009029	DHRUV MOHAN JAIN	B.Tech. (ME)	dhruv09029@iiitdmj.ac.in
13	2009051	KAVITI KESHAV KUMAR	B.Tech. (ECE)	kaviti09051@iiitdmj.ac.in
14	2009059	MANISH PANDEY (Convener)	B.Tech. (CSE)	manish09059@iiitdmj.ac.in
15	2009131	SYED MUDASSIR MOIN	B.Tech. (ME)	syed09131@iiitdmj.ac.in
16	2010010	AKASH AGGARWAL (Co convener)	B.Tech. (ECE)	agrawal10010@iiitdmj.ac.in
17	2010025	ANKIT AWASTHI	B.Tech. (ME)	ankit10025@iiitdmj.ac.in
18	2010041	BHAKT VALSAL	B.Tech. (CSE)	bhakt10041@iiitdmj.ac.in
19	2010138	PRATEEK ARORA	B.Tech. (CSE)	prateek10138@iiitdmj.ac.in
20	2010155	ROBIN SINGH NANDA	B.Tech. (ECE)	robin10155@iiitdmj.ac.in
21	2010169	SANJAY SAHU	B.Tech. (ECE)	sanjay10169@iiitdmj.ac.in
22	2010183	SHIVAM PATEL	B.Tech. (ME)	shivam10183@iiitdmj.ac.in
23	2010212	VIPIN YADAV	B.Tech. (ME)	vipin10212@iiitdmj.ac.in
24	2010213	VIPLAV MISHRA	B.Tech. (CSE)	viplav10213@iiitdmj.ac.in
25	2011013	AKHILESH KUMAR SHARMA	B.Tech. (ME)	2011013@iiitdmj.ac.in
26	2011085	NAGENDRA YADAV	B.Tech. (CSE)	2011085@iiitdmj.ac.in
27	2011094	NITIN BHARDWAJ	B.Tech. (ECE)	2011094@iiitdmj.ac.in





28	2011104	PRANJAL NAUTIYAL	B.Tech. (ME)	2011104@iiitdmj.ac.in
29	2011182	A KRISHNA	B.Tech. (CSE)	2011182@iiitdmj.ac.in
30	2011221	SHAILJA AGRAWAL	B.Tech. (ECE)	2011221@iiitdmj.ac.in
31	2011239	YAMASANI RAHUL	B.Tech. (ECE)	2011239@iiitdmj.ac.in
32	2011248	GOVINDA PARASRAMPURIA	B.Tech. (ME)	2011248@iiitdmj.ac.in
33	2011252	SRINATH REDDY	B.Tech. (CSE)	2011252@iiitdmj.ac.in
34	2012008	ABHINAV SHEKHAR	B.Tech. (ECE)	2012008@iiitdmj.ac.in
35	2012152	NAVEEN	B.Tech. (ME)	2012152@iiitdmj.ac.in
36	2012164	PIYUSH SHARMA	B.Tech. (ECE)	2012164@iiitdmj.ac.in
37	2012174	PRASHANT SHRIVASTAVA	B.Tech. (CSE)	2012174@iiitdmj.ac.in
38	2012226	SIDDHARTH GAUTAM	B.Tech. (CSE)	2012226@iiitdmj.ac.in
39	2012227	SIDDHARTH KUMAR	B.Tech. (ME)	2012227@iiitdmj.ac.in
40	2012239	TARUN BHATIA	B.Tech. (CSE)	2012239@iiitdmj.ac.in
41	2012263	ABHISHEK GUPTA	B.Tech. (ME)	2012263@iiitdmj.ac.in
42	2012270	GAURAV GUPTA	B.Tech. (ECE)	2012270@iiitdmj.ac.in

Student Gymkhana organises three annual events every year. These are

- (1) 'Tarang', the cultural festival
- (2) 'Abhikalpan', the tech-festival and
- (3) 'Gusto', the sport festival



## STUDNETS FESTIVALS AND EVENTS

### Tarang'13

TARANG-the waves of life, is the annual cultural festival of PDPM IIITDM, the biggest central India's cultural fest. This year Tarang was re-energized and reborn as TARANG'13 REJUVENATES was slated from 24th to 27th October, 2013. Tarang is a dynamic ensemble of 'cult maestros' and presents a unique blend of traditional and modern India. It is vibrant, soulful, exhilarating yet, a serene event. It is an avenue for the best talents from the top colleges across the country to battle it out in an array of cultural events. The scale of TARANG can be judged by the fact that it invites participation from more than 150 engineering colleges from across the country. The sheer number of more than 5000 footfalls creates a buzz in the campus making it the most happening event during the period. Adding to its magnanimity are the institutes like NIFTs, NIDs, NITs and bands from across the country including places like Delhi NCR, Bhopal, Raipur, Katni, Kolkata and Nagpur.

The festival hosted many famous events like - a Runway Route-Fashion Show, Aaveg-the rock band competition, comedy show and finally, the Prof Nite where the famous band –Underground Authority performed and rocked the stage.



Tarang: 2013



Prof Nite-Performed by A famous band- Underground Authority

### Abhikalpan

Abhikalpan- 2014, the annual technical festival of IIITDM Jabalpur was held from March 7-9, 2014. It was first brought into action in 2006 with an aim to promote innovative technical excellence and organizational proficiency. This is the perfect platform to cultivate one's inner innovative technical potential. This fest promises cut throat competition in wide range of technical events in the domain of ME, CSE, ECE, Robotics, Design, Gaming and Management along with a host of informal events.





**Inaugural Session of Abhikalpan 2013**



**ROBO WAR- "RIGHT TO KILL"**



**ABHIKALPAN 2013: Students preparing for  
'ROBOWAR-Right To Kill'**

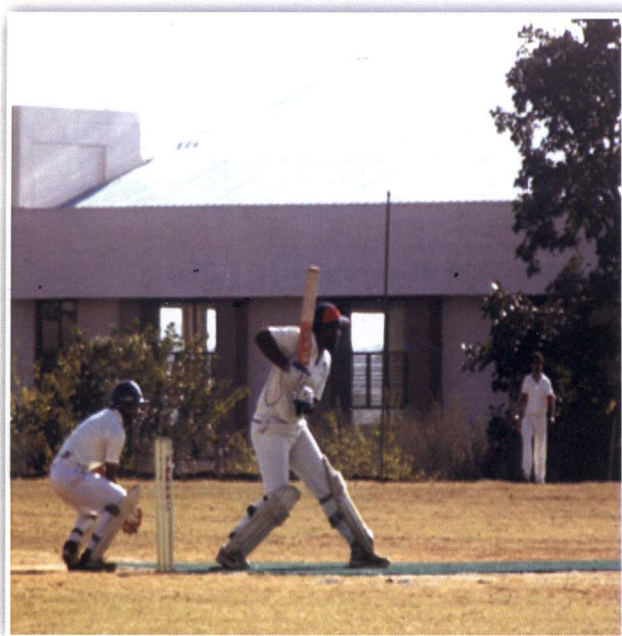


**Exhibition & Photography**

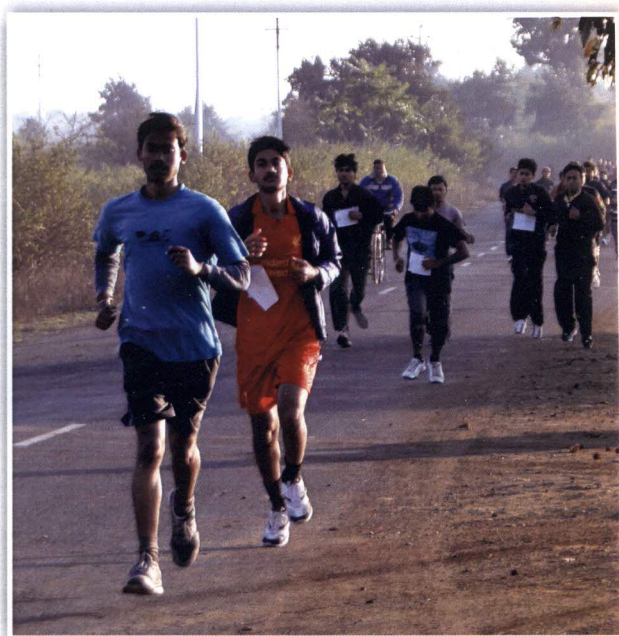
## GUSTO

The GUSTO was held from Jan 30, 2014 – Feb 2, 2014. GUSTO is the National Level Annual Inter-College sports meet of the Indian Institute of Information Technology, Design and Manufacturing Jabalpur. This will be the 8th edition of GUSTO since 2006. GUSTO is the largest sports fest of Central India. Various IIMs, NITs, SPAs and private colleges participate in this sports meet. Last edition of GUSTO witnessed IIM Indore, NIT Bhopal, SPA Bhopal, United Group of Institutions Ghaziabad and many private colleges engaging in a healthy competition to prove their worth. It featured a multitude of events viz. Cricket, Volleyball, Football, Badminton, Athletics, Basketball, Lawn tennis, Table Tennis, Chess, Carom, Sports Quiz alongwith many informal events as well.





Gusto 2014: Cricket Match



Gusto 2014: Marathon

## Literary Club

A seminar on the topic “Vivekananda on Youth” was held from November 8-9, 2013. Dr. Akhilesh Gumashta a well-known writer and author of “Ramayan- The Hymns of Himalaya”; who is the Pramukh of Vivekananda Kendra, Jabalpur along with other dignitaries was called for the seminar. Various thoughts on the contemporary youth, their role in society etc., were shared in the seminar.

**FIESTA da LITERATI**  
**LITERARY CLUB**  
**# Day 1**  
**SEMINAR : “Vivekananda on Youth”**  
Author of  
“Ramayan-The Hymns of Himalaya”  
**Dr. Akhilesh Gumashta**  
November 8, 2013.  
Time: 6:00PM  
Venue: L8  
Nagar Pramukh,  
Vivekananda Kendra Jabalpur  
**Alta Gore**

**# Day 2**  
• Debates • Poetry  
• Extempore • Quizes  
• Creative Writing  
Date : November 9, 13.  
Time : 10AM TO 5:30PM  
\*All successful participants will receive certificates.  
Pranjal Nautiyal, 8989830519

## Other Activities

The 2nd Blood Donation camp was organized in the campus on October 05, 2013, by Indian Red Cross Society, Jabalpur. Many undergraduate and postgraduate students, faculty and staff participated in the camp and donated blood. The camp was successful.







## IIITDMJ-JAPAN COLLABORATION ACADEMIC PROGRAMME

The IIITDM Jabalpur – Japan collaboration is an aspect of a wider partnership envisaged between Japan and India. The Institute is being developed and nurtured under India - Japan partnership as a unique Institute of its kind with focus on IT enabled design and manufacturing. Under a joint agreement between the two Governments, Japan, a leader in cutting edge manufacturing technologies is committed to provide support for development of the teaching and research programmes and also to promote the infrastructure of the Institute. Under the agreement, the two sides have decided to nurture and strengthen PDPM IIITDM, Jabalpur (IIITDMJ) through the following:

- Academic assistance by Japanese side to develop expertise in those areas in which Japan has developed considerable skills and expertise.
- Formation of Consortium of Japanese universities/institutes/industries for providing academic assistance in teaching and research to the Institute.
- Exchange of scholars between the Consortium partners or other organizations in Japan and IIITDMJ and the visits of IIITDMJ students for development of expertise.
- To secure financial resources from public/private sectors for development of IIITDMJ.
- Consortium partners to hold joint conferences/ symposia / workshops on advanced research topics in India and Japan.
- Continue discussion to explore other aspects of cooperation with respect to IIITDMJ.

For effective implementation of this collaboration, Government of Japan has formed a consortium of six universities which includes :

### Among Universities:

1. University of Tokyo
2. Tokyo Institute of Technology
3. Tohoku University
4. Kyushu University
5. Shibaura Institute of Technology
6. Kanagawa Institute of Technology





### **Among Industries:**

1. Hitachi
2. Toshiba
3. Amada
4. Okuma
5. Sumitomo Metals and
6. GE Energy

### **Long Term Internship offers -**

Internship offers were made by Canon Company, Mitsubishi Heavy Industries, Nagaoka University and McGill University. Most of the offers were for undergraduate students for duration of Six Months approximately. Following students visited Japanese Universities and industries under the programme in the year 2013-14.

- Mr. Vikash Singh, Mitsubishi heavy Ind. Ltd., Japan
- Mr. Gunishetty Sravan Kumar, Mitsubishi heavy Ind. Ltd. , Japan
- Mr. Rajeshwar Agrawal, Canon Japan
- Mr. Siddharth Sahu Canon Japan
- Mr. Mayank Gark, Nagaoka University, Japan
- Ms. Sakshi Gupta, McGill University,
- Mr. Bhakt Trivedi, CRANN Institute Ireland

### **Joint organisation of Seminars/Conferences/Workshops**

Design Workshop has become a regular feature now. Every year institute is organizing such workshops. This year also institute organized Mini Design Workshop held during December 6 & 7, 2013. Main Objective for holding such workshops is to facilitate exchange of design ideas amongst faculty, students and industry experts from different parts of the globe.

### **Visits of Japanese Experts to IIITDMJ - Cooperation in IIITDMJ's teaching programme**

Every year about 8 -15 experts from Japan contribute in the teaching programme of IIIT DM Jabalpur. This year also some of the renowned experts from academia and industry across Japan visited the Institute.





S. No.	Name	Course	Affiliation	Duration
1	Prof Hatsuhiko Kato	Advanced Computer Architecture	Shonan Institute of Technology	Jan. 6, 2014 – Feb.28, 2014
2	Prof Kenichi Miura	Parallel Processing (EMF)	National Institute of Informatics, Tokyo	Feb.17 - 21, 2014
3	Prof Hiroshi Toshiyoshi	MEMS Design & Application (EMF)	University of Tokyo	March 3 - 7, 2014
4	Prof Takashi Nanya	Dependable Computing (EMF)	Canon, Inc.	March 10 - 14, 2014
5	Prof Koichi Shinoda	Multimedia Information Processing (EMF)	Tokyo Institute of Technology	March 24 – 28, 2014
6	Prof Hiroshi Arisawa	Data Engineering	Yokohama National University	March 31 – April 4, 2014
7	Prof Shinchi Warisawa	Industrial & Aesthetic Attributes in Concept Design	The University of Tokyo Department of Human and Engineered Environmental Studies Japan Graduate School of Frontier Sciences Kashiwa, Chiba 277-8563	February 17-21, 2014
8	Prof Michiko Ohkura	Human Computer Interface (Evaluation of Products Design by Kansei Engineering Research	Shibaura Institute of Technology Department of Information Science and Engineering, College of Engineering	March 24-28, 2014





## SEMINARS/WORKSHOPS/CONFERENCES/TRAINING PROGRAMMES CONDUCTED

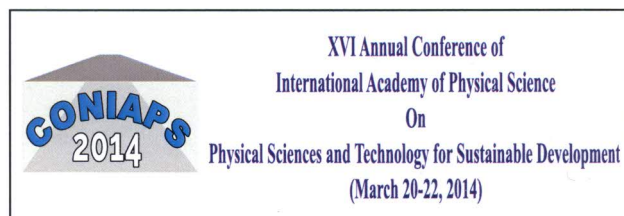
### CARE-2013 (IEEE Sponsored International Conference)

The first IEEE International conference on control, automation, robotics and embedded systems was organized during December 16-18, 2013 by Dr Prabin Kumar Padhy, Dr Jawar Singh and Dr Sachin Kumar Jain. This was the first IEEE event organized at the campus and participants from USA, Japan and Australia etc. participated in the conference apart from a large number of participants from different parts of the country. Keynote lectures were delivered by Prof Toshio FUKUDA, Prof S C Srivastav, Prof Suraju Mohanty & Prof S N Singh.



### CONIAPS - XVI

Sixteenth international Conference of International Academy of Physical Sciences was also organized by Dr Prabin Kumar Padhy, Dr Sachin Kumar Jain and Dr Sraban Kumar Mohanty during March 20-22, 2014. More than 200 participants from across the country participated in the conference. In the conference, 10 Scientists were felicitated by the academy due to their outstanding research contribution.



This Conference covered many topics related to Physics, Chemistry, Mathematics, Statistics, Computer Science, Information Technology, and Earth-Sciences (Geophysics, Geology and Geography) as well as topics related to applications of Physical Sciences to Bio-sciences (Biophysics, Bioinformatics, Biochemistry, Bio-mathematics etc.), Electronics and Engineering Sciences were invited for presentations.

### Mini Design Workshop 2013

The Mini Design Workshop 2013 was held from December 6-7, 2013. A Mini Design Workshop on 'Nature Inspired Design' was organized during December 6-7, 2013 by Dr Jayesh Pillai and Mr K K Balakrishnan. In the workshop, a students' design challenge was also organized that attracted entries from outside India also. Winner of the students design challenge was Ms Nikita Chandekar from MIT Institute of Design Pune, India and her





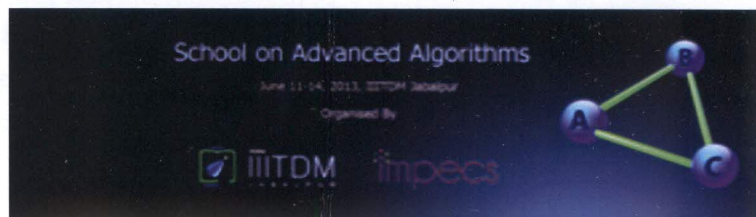


design idea was Eco-Bhel. The goal of this workshop was to bring together researchers and practitioners who have worked on or thought about nature inspired design from various perspectives, disciplines, and fields and to explore how nature inspired strategies can be applied in the field of design for developing radically sustainable products. The workshop also facilitated the formation of a nature inspired design research group.

## School on Advance Algorithms

SOAA 2013, School on Advance Algorithms was held from June 11-14, 2013. This school was jointly organised by the Institute and Indo-German Max Planck Center for Computer Science (IMPECS). The Indo-German Max Planck

Center for Computer Science has been setup with the vision to perform top-quality basic research in Computer Science (CS) in cooperation between Indian and German computer scientists. It aims to serve as a bridge between the Indian and German CS communities, and enhance scientific cooperation between them, and act as a center of excellence in which faculty and students can build careers. IMPECS is supported by the Department of Science and Technology (DST), Bundesministerium fur Bildung und Forschung (BMBF, Federal Ministry of Education and Research) and the Max-Planck-Gesellschaft (MPG, Max Planck Society), Dr. Atul Gupta was the co-ordinator from the Institute.



## Workshop on Emerging Trends in Information Technology in University management

A National Workshop on Emerging Trends in Information Technology in University management was organized on September 9-13, 2013. The phenomenal growth of information and application of IT in the form of high degree of computerization and

transmission of electronic information has changed the basic structure and functioning of university level institutions in some of the developed countries. This workshop has provided opportunities for senior administrators/ managers/ finance officers of university level institutions to learn as well as deliberate on the issues related to use of computer and application of information technology in the administration and management of universities in India. The workshop co-ordinators were Dr. Pritee Khanna of the Institute and Dr. Usha Rani Negi from AIU.

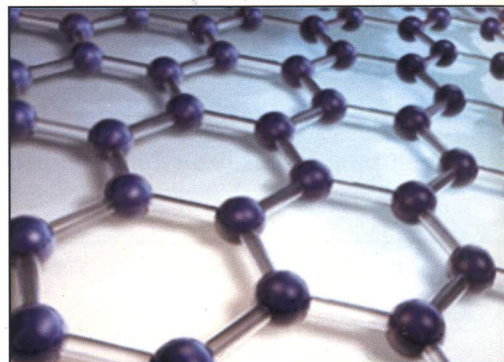






## Workshop on Nanofabrication WON 2013

A 3 day workshop on Nanofabrication WON-2013 was held during 25th to 27th May, 2013. The workshop focused on electronics devices that are scaled upto the nano range, the workshop was particularly aimed at academicians, researchers as well as industry persons. Simulation is the only way to study these devices in depth. Hence, TCAD simulations has got immense importance. So, considering the importance of both the issues, the workshop was planned for following topics:



- Introduction to Nanofabriaction & Nanotechnology.
- Pulsed Laser Deposition
- Microcantilever based Sensors & Instrumentation
- Introduction to BioMEMS
- BioMEMS Applications etc.

## Mini workshop on Precision, Measurements, Challenges and application for Nano Electronics

The Mini workshop on Precision Measurements, Challenges and Applications for Nano Electronics was held on October 4, 2013. It was organized by institute faculty Dr. Ashutosh Shirvastav supported by Tektronix India Pvt. Ltd. In this workshop, Dr. Abhay Joshi covered various topics such as fundamentals of measurement, selection of right instruments, Precision measurements techniques and introduction to 4200 SCS semiconductor characterization Systems.



Mini-Workshop  
on  
Precision, Measurements,  
Challenges and applications for  
Nano Electronics

**Tektronix®**

## Workshop on IP Awareness

The workshop on IP Awareness was held on February 8, 2014. The workshop started with an opening session elucidating the purpose of IP, and giving an overview on the most important IPRs, such as, patents, trademarks, trade names, designs, copyright, etc. Illustrative examples were discussed to explain the various intellectual property rights issues. An important session which was specifically focused for patents (protecting technical inventions), including topics such as the patentability criteria, the contents of a patent application, how patents can be exploited, was also held. Prof. P. Tandon organised the workshop for students and faculty of the Institute.

**Workshop**  
on  
**IP Awareness**







## Hindi Pakhawada– 2013

Like every year this year also Institute celebrated Hindi Pakhawada – 2013 which started from September 14, 2013 and concluded on September 27, 2013. The day of September 14 is observed as Hindi Diwas in the nation because on the date the language Hindi was adopted as official language of the nation by the constituent assembly in the year 1949.



During the period various competitions were organised amongst staff members and students. People enthusiastically participated in these competitions. The closing ceremony was held on September 27, 2013. Director of the Institute, guest Dr Parag Vyas and other members of the Institute were present in the closing ceremony. Winners of various competitions were awarded with the prizes.

## INDO-US Robo League

The Indo-Us Robo League and Robotics Workshop was held from October 5-6, 2013. INDO-US ROBO LEAGUE (IURL) is a national level robotics competition organized by Technophilia Systems in association with Robotics and Computer Applications Institute of USA (RCAi-USA). Winner IURL 2013 normally represents India at RoboGames, USA - World's largest ROBOT COMPETITION.

### Indo-US Roboleague and Robotics Workshop







## INFRASTRUCTURE DEVELOPMENT

### Existing Infrastructures

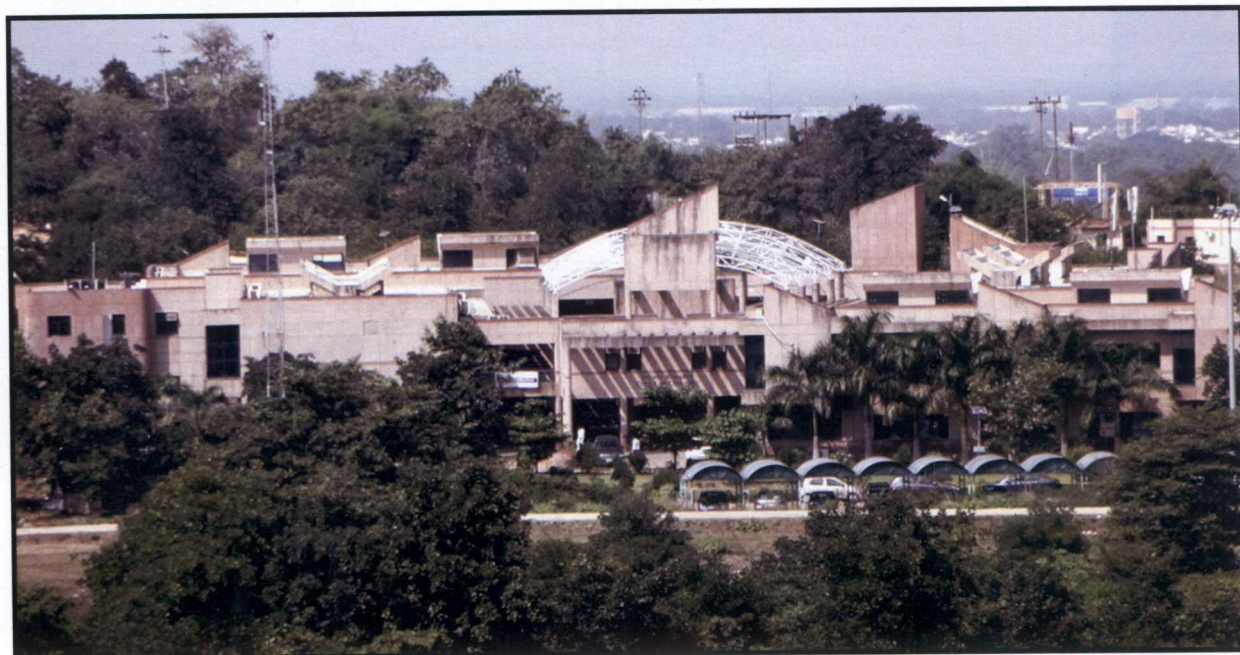
The Institute had shifted to its own campus in July, 2009. Initially all the academic activities were accommodated in Core lab Complex, the only building completed and occupied at that time. Afterwards, with increase in the space demand some additional temporary sheds were constructed at the Institute level. Major works were assigned to the CPWD. However, the running works like Hall of Residence – I and Hall of Residence – III were completed at Institute level. Presently all the construction projects inside the Campus are being carried out by the CPWD.



View of the construction projects

1. **Core Lab Complex:** The building was earlier under use as the main Institute building. As a part of the Lecture Hall & Tutorial Complex (LHTC) has been completed and handed over by the CPWD, most of the class room and tutorial activities have been shifted to the LHTC. The rooms in core lab complex, which were earlier in use as class rooms, are now converted into professional labs. In addition, the vacant space has also been utilized by extending the CC Lab and the Library portion. The temporary structures constructed for class room purpose are now converted into professional labs. Faculty chambers are proposed in some of the temporary structures.





**Core Lab Complex**

2. **Hall of Residences (Hostels):** At present Institute has three residential hostels as Hall of Residence-1, Hall of Residence-3 and Hall of Residence-4. Hall of Residence-1 has a capacity for 408 students (single seated). Hall of Residence-3 is a triple seated hostel having total capacity of 498 students. Hall of Residence - 4 is also a triple seated hostel having total capacity of 498 students. Necessary arrangements have been made inside the building for providing mess and dining space, reading rooms, TV viewing rooms, gymnasium etc. to the students to facilitate the students for extracurricular activities. Canteen, stationary shop, photo copy shop etc. are provided near the hostels. The buildings are connected to the academic area, other hostel buildings and the play fields with concrete roads / footpaths.



**Hall of Residence -1**





Hall of Residence - 3



Hall of Residence - 4

3. **Outdoor Sports Facilities:** Outdoor Volleyball courts, Tennis court, Basket Ball court are developed inside the campus. Open play field is being used for cricket, football and track and field games. The students have been, celebrating since last three years their annual fest like GUSTO", "ABHIKALPAN" etc. inside the campus only.
- 4 **Lecture Hall and Tutorial Complex:** The building has partially been complete by the CPWD. All the class room activities have now been shifted to this building. The work of development of Virtual Class Room is under progress in this building. The academic office has been shifted to this building. In addition some faculty chambers have been created in this building through temporary partitions. Some of the class rooms are being used as research labs.



Lecture Hall and Tutorial Complex





5. **Labs/Workshops:** For research and experiments related work, institute has many labs such as Electronics Lab, Microwave Lab, Mechatronics lab, Physics Lab, Workshops, Design studio etc. Presently all these labs are running in temporary structures.



**Temporary Structures for Labs**

6. **Library:** At presents, Institute Library is in the core lab premises, specious premise of Library Cum Computer center is under construction and at the stage of completion.

**Other Basic Facilities:** The water supply is available for 24 hours to all the buildings through RCC overhead tank. An uninterrupted electrical supply is being provided by the MPPKVV Co. Ltd. through a dedicated feeder. In case of failure in the electrical supply, one DG set of 250 KVA and one of 45 KVA are available for standby electrical supply. The commissioning of DG set of 1000 KVA is expected very soon. Presently, all the sewerage treatment is being done by an STP placed at a temporary and isolated location. Some sedimentation tanks are also developed inside the campus to facilitate the ground water recharge. The process of procurement of STP for newly laid permanent sewer line is under progress by the CPWD. The work of concrete roads connecting the academic area to the hostel area has been completed by the CPWD. In addition all the buildings are interconnected through pathways. Enough area lighting is available in all the occupied areas. Street lights are available on all the roads under use. Two numbers of culverts over the water body passing through the campus have been completed by the CPWD. These culverts are meant to join the academic area to the residential areas.

**Ongoing Construction Projects:** The following important projects inside the campus are presently under progress by the CPWD.

- (i) **Narmada Residency II:** This is a residential building complex having provision of 55 nos. 2-bedrooms flats. The building is expected to be handed over by the CPWD very soon.





**Narmada Residency II**

- (ii) **Narmada Residency III:** This building is also a residential building having provision for 60 nos. 3-bedrooms flats. The building is at finishing stage and is expected to be completed very soon by the CPWD.



**Narmada Residency III**





- (iii) **Library cum Computer Centre:** The structural work for the building is almost completed and the finishing work is under progress



**Library cum Computer Centre**

- (iv) **Rewa Residency 2A:** It is also a residential building complex having provision for 72 nos. 2-bedroom flats for staff. The structural work for the building is at completion stage and the finishing work is under progress.
- (v) **2 Nos. Type V Quarters:** The building comprises of 2 nos. 2- bed room quarters meant for hostel wardens. The building is located in hostel area and is almost completed. It is going to be handed over very soon by the CPWD.
- (vi) **Hall of Residence 7 (PG Hostel):** The building has provision of married accommodation for 98 students and 404 single seated rooms with facility block for PG students. The pace of construction for the building has observed to be very fast. The structural work is almost completed and the finishing work is under progress.



**Hall of Residence 7**





- (vii) **Visitors' Hostel:** The civil work of the building is almost completed. The electrical and air conditioning work, is under progress. The building has provision for 06 nos. suits and 30 nos. double beaded rooms with a facility block for institute guests.



Visitors' Hostel

- (viii) **Road, Electrical and other infrastructure development at the campus:** The work of road networking, electrical supply and networking system, water and sewerage networking system throughout the campus are going on with full swing by the CPWD.

### New Infrastructure Development:

In the financial Year 2013-14, following buildings were initiated with Bhoomi Poojan.

1. **Hall of Residence 8 (Girls Hostel):** The Bhoomi Poojan for the building was done by Prof H.P. Dikshit, former member of BOG of the institute. The construction of the building has been started with full swing.



Bhoomi Poojan Ceremony for Hall of Residence 8 (Girls Hostel)





2. **Administrative Block:** Bhoomi Poojan for the building was done by Prof H.P. Dikshit, former member of BOG of the institute. Construction of the building has been started.



**Bhoomi Poojan Ceremony for Administrative Block**

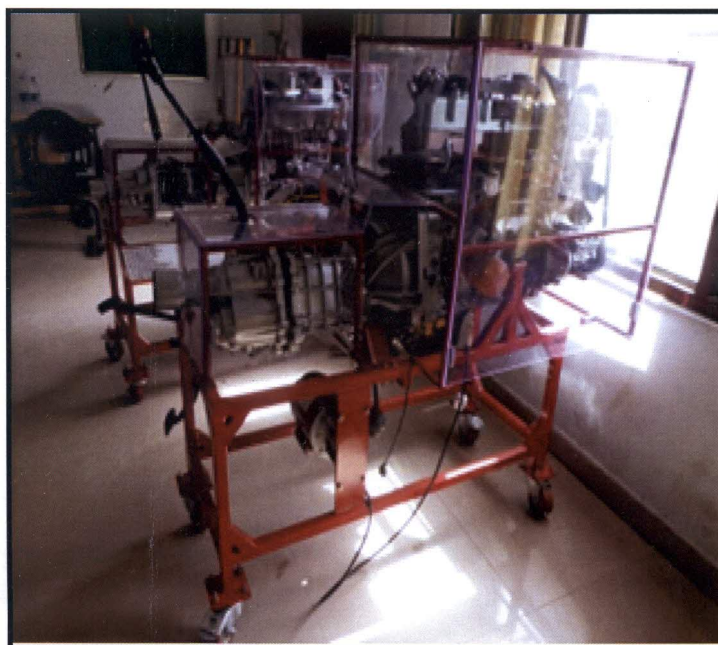
**New Projects:** The detailed planning and estimation work for the following new projects is under progress by the consultants under close monitoring by the CPWD and the Institute authorities.

- Professional Lab Complex
- Multiutility Centre
- Technology Incubation Centre
- Director's Residence
- Main Gate for the Campus.



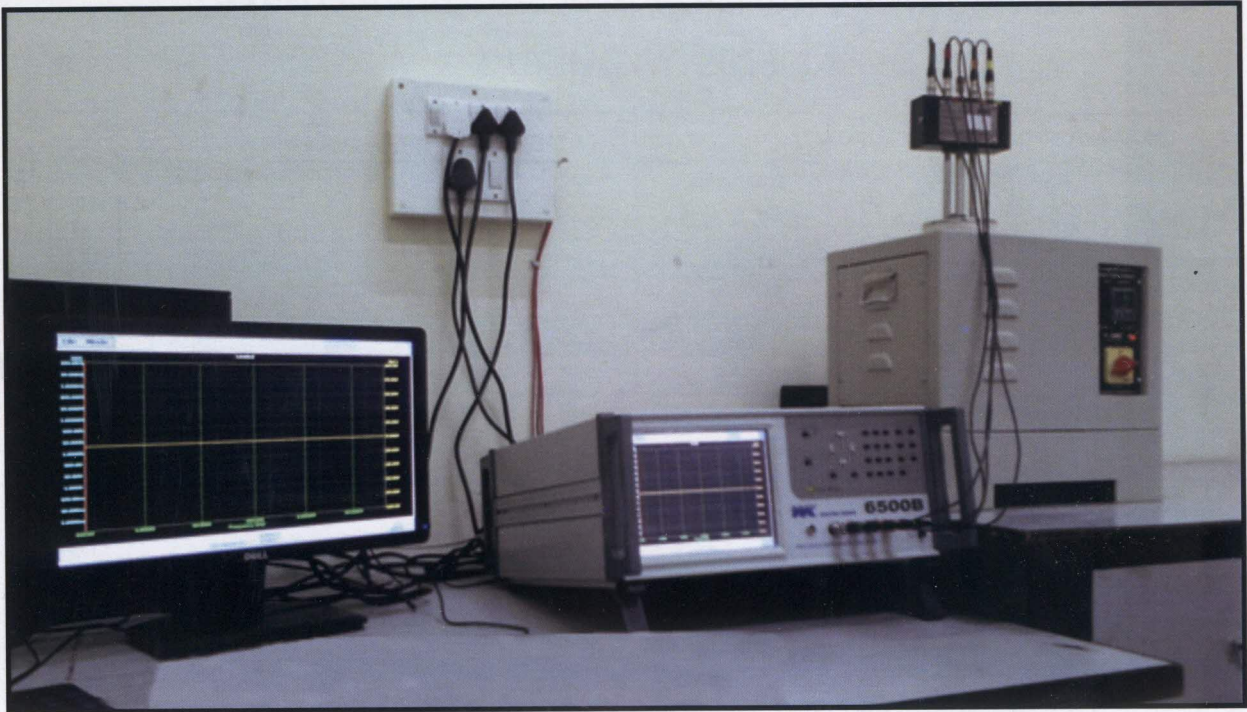


## EQUIPMENTS PROCURED DURING 2013-14



**Cut Section model of Diesel CRDI Engine, Clutch & Gearbox (Working)**





High Temperature Impedance Analyser



Virtual Class Room under construction





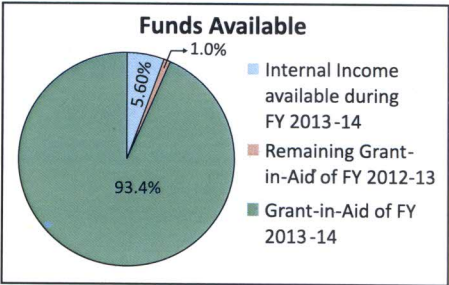
**ANNUAL ACCOUNTS  
AND  
ANNUAL AUDIT REPORT  
FOR THE F.Y. 2013-2014**



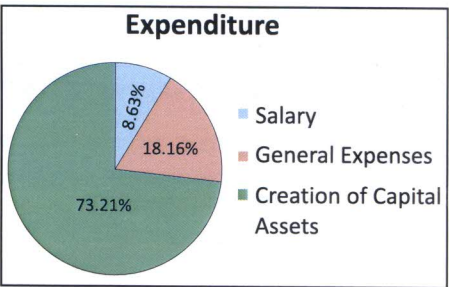


FUNDS AVAILABLE AND EXPENDITURE INCURRED  
DURING F.Y. 2013-14

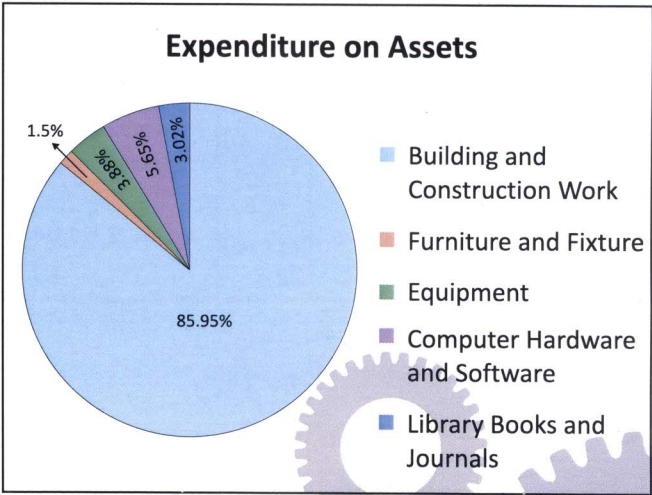
Funds Available F.Y. 2013-14	
Particulars	Amount ₹ in Lakhs
Internal Income available during FY 2013-14	480.41
Remaining Grant-in-Aid of FY 2012-13	85.65
Grant-in-Aid of FY 2013-14	8000.00
Total	8566.06



Head wise Expenditure during FY 2013-14	
Head	Amount ₹ in Lakhs
Salary	648.59
General Expenses	1367.14
Creation of Capital Assets	5509.53
Total	7525.26



Expenditure - Creation of Capital Assets during FY 2013-14	
Particulars	Amount ₹ in Lakhs
Building and Construction Work	4735.19
Furniture and Fixture	82.58
Lab and Office Equipment	213.64
Computer Hardware and Software	311.13
Library Books and Journals	166.99
Total	5509.53







**FINANCIAL STATEMENTS**  
**PANDIT DWARKA PRASAD MISHRA INDIAN INSTITUTE OF INFORMATION**  
**TECHNOLOGY, DESIGN & MANUFACTURING, JABALPUR**

**BALANCE SHEET AS AT 31ST MARCH 2014**

Amount in ₹

1	SOURCES OF FUNDS	SCHEDULES	CURRENT YEAR (AS AT 31/03/2014)	PREVIOUS YEAR (AS AT 31/03/2013)
<b>A</b>	<b>UNRESTRICTED FUNDS</b>			
i	CORPUS	1	2,32,62,75,599	1,82,92,27,439
ii	GENERAL FUND(INSTITUTE CORPUS FUND)	2	10,05,26,150	5,24,84,853
iii	DESIGNATED/EARMARKED FUNDS	3	1,18,84,858	1,32,03,923
<b>B</b>	<b>RESTRICTED FUNDS</b>	4	0	0
<b>C</b>	<b>LOANS/BORROWINGS</b>	5		
i	SECURED		0	0
ii	UNSECURED		0	0
<b>D</b>	<b>CURRENT LIABILITIES &amp; PROVISIONS</b>	6	10,17,19,408	3,46,64,922
	<b>TOTAL</b>		<b>2,54,04,06,015</b>	<b>1,92,95,81,137</b>
<b>2</b>	<b>APPLICATION OF FUNDS</b>			
<b>A</b>	<b>FIXED ASSETS</b>			
i	TANGIBLE ASSETS	7	72,88,04,030	71,15,88,100
ii	INTANGIBLE ASSETS	7	43,73,487	7,92,253
iii	CAPITAL WORK-IN-PROGRESS	7	97,44,66,261	4,01,83,480
<b>B</b>	<b>INVESTMENTS</b>	8		
i	LONG TERM		0	0
ii	SHORT TERM		0	3,87,136
<b>C</b>	<b>CURRENT ASSETS</b>	9	19,93,26,319	8,23,27,164
<b>D</b>	<b>LOANS, ADVANCES &amp; DEPOSITS</b>	10	63,34,35,918	1,09,43,03,004
	<b>TOTAL</b>		<b>2,54,04,06,015</b>	<b>1,92,95,81,137</b>
	NOTES TO ACCOUNTS	22		

(Naresh Joshi)  
Asst. Registrar (IA, F&A)

(Ram Phal Dwivedi)  
Dy. Registrar (GA, F&A)

(Aparajita Ojha)  
Director





# FINANCIAL STATEMENTS

## PANDIT DWARKA PRASAD MISHRA INDIAN INSTITUTE OF INFORMATION TECHNOLOGY, DESIGN & MANUFACTURING, JABALPUR

### INCOME AND EXPENDITURE ACCOUNT FOR THE PERIOD 01/04/2013 TO 31/03/2014

Amount in ₹

	PARTICULARS	SCHEDULES	CURRENT YEAR				PREVIOUS YEAR
			UNRESTRICTED FUNDS			RESTRICTED FUND	TOTAL
			CORPUS	DESIGNATED FUND	GENERAL FUND		
<b>A</b>	<b>INCOME</b>						
	ACADEMIC RECEIPTS	11	0	0	3,57,68,553	0	3,57,68,553
	GRANTS & DONATIONS	12	20,15,72,722	0	0	0	20,15,72,722
	INCOME FROM INVESTMENTS	13	0	0	0	0	0
	OTHER INCOMES	14	0	0	1,10,72,212	0	1,10,72,212
	<b>TOTAL (A)</b>		<b>20,15,72,722</b>	<b>0</b>	<b>4,68,40,765</b>	<b>0</b>	<b>24,84,13,487</b>
<b>B</b>	<b>EXPENDITURE</b>						
	STAFF PAYMENTS & BENEFITS	15	9,52,15,088	0	0	0	9,52,15,088
	ACADEMIC EXPENSES	16	3,67,54,350	0	0	0	3,67,54,350
	ADMINISTRATIVE AND GENERALEXPENSES	17	6,28,65,959	0	0	0	6,28,65,959
	TRANSPORTATION EXPENSES	18	35,65,498	0	0	0	35,65,498
	REPAIRS & MAINTENANCE	19	31,57,778	0	0	0	31,57,778
	FINANCE COSTS	20	14,049	0	0	0	14,049
	OTHER EXPENSES	21	5,39,04,826	0	0	0	5,39,04,826
	<b>TOTAL (B)</b>		<b>25,54,77,548</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>25,54,77,548</b>
	<b>BALANCE BEING EXCESS OF INCOME OVER EXPENDITURE (A-B)</b>		<b>(5,39,04,826)</b>	<b>0</b>	<b>4,68,40,765</b>	<b>0</b>	<b>(70,64,061)</b>
	<b>TRANSFER TO GENERAL FUND</b>						
	INTERNAL INCOME		0	0	4,68,40,765		4,68,40,765
	BUILDING FUND		0	0	0	0	0
	PRIOR PERIOD ADJUSTMENT		0	0	12,00,532	0	12,00,532
	<b>BALANCE BEING SURPLUS (DEFICIT) CARRIED TO GENERAL FUND</b>		<b>0</b>	<b>0</b>	<b>4,80,41,297</b>	<b>0</b>	<b>4,80,41,297</b>
	<b>BALANCE BEING SURPLUS (DEFICIT) CARRIED TO CORPUS FUND</b>		<b>(5,39,04,826)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>(5,39,04,826)</b>
	NOTES TO ACCOUNTS	22					

(Naresh Joshi)  
Asst. Registrar (IA, F&A)

(Ram Phal Dwivedi)  
Dy. Registrar (GA, F&A)

(Aparajita Ojha)  
Director





**FINANCIAL STATEMENTS**  
**PANDIT DWARKA PRASAD MISHRA INDIAN INSTITUTE OF INFORMATION**  
**TECHNOLOGY, DESIGN & MANUFACTURING, JABALPUR**

**CASH FLOW STATEMENT FOR THE YEAR ENDED 31ST MARCH 2014**

Amount in ₹

PARTICULARS	Amount	Amount
<b>CASH FLOW FROM OPERATING ACTIVITIES:</b>		
SURPLUS/(DEFICIT) FOR THE YEAR		(5,39,04,826)
<b>ADJUSTMENTS FOR THE NON-OPERATING INCOMES/EXPENSES</b>		
DEPRECIATION	5,39,04,826	
WRITE OFFS	0	
INTEREST EXPENSES ON LOANS	0	
(INTEREST INCOME)	(67,00,073)	
(DIVIDEND INCOME)	0	
PRIOR PERIOD ADJUSTMENT OF DEPRECIATION	(4,020)	
(GRANT RELATING TO ASSETS TO THE EXTENT RECOGNISED AS INCOME IN THE INCOME & EXPENDITURE ACCOUNT)	(20,15,72,722)	(15,43,71,989)
<b>SURPLUS/(DEFICIT) BEFORE CHANGES IN THE CURRENT ASSETS/CURRENT LIABILITIES.</b>		(20,82,76,815)
(INCREASE)/DECREASE IN CURRENT ASSETS	(2,17,320)	
(INCREASE)/DECREASE IN LOANS & ADVANCES	46,08,67,086	
INCREASE/(DECREASE) IN CURRENT LIABILITIES.	6,70,54,486	52,77,04,252
<b>NET CASH FROM OPERATING ACTIVITIES.</b>		31,94,27,437
<b>CASH FLOW FROM INVESTING ACTIVITIES:</b>		
(PURCHASE)/SALE OF FIXED ASSETS	(1,00,89,80,752)	
(PURCHASE) OF INVESTMENTS	(1,11,20,00,000)	
SALE OF INVESTMENTS	1,11,23,87,136	
INTEREST RECEIVED	67,00,073	
DIVIDEND RECEIVED		(1,00,18,93,542)
<b>NET CASH FROM INVESTING ACTIVITIES</b>		(1,00,18,93,542)
<b>CASH FLOW FROM FINANCING ACTIVITIES:</b>		
ADDITION TO GENERAL (INTERNAL CORPUS) FUND DURING THE YEAR	4,80,41,297	
GRANTS/FUNDS IN NATURE OF FOUNDERS'/PROMOTERS' CONTRIBUTION	55,09,52,986	
GRANTS/FUNDS NOT REQUIRING FULFILMENT OF ANY OBLIGATION.	20,15,72,722	
ENDOWMENT FUND (PRINCIPAL SUM)	(13,19,065)	
PROCEED FROM LONG TERM BORROWINGS	0	
(REPAYMENT OF LONG TERM BORROWINGS)	0	
INTEREST PAID ON LOANS	0	
<b>NET CASH FLOW FROM FINANCING ACTIVITIES.</b>		79,92,47,940
<b>NET INCREASE/DECREASE IN CASH EQUIVALENTS</b>		11,67,81,835
<b>CASH AND CASH EQUIVALENT AT THE BEGINNING OF THE PERIOD</b>		8,23,27,164
<b>CASH AND CASH EQUIVALENT AT THE END OF THE PERIOD</b>		19,91,08,999

*Naresh Joshi*

(Naresh Joshi)  
Asst. Registrar (IA, F&A)

*Ram Phal Dwivedi*

(Ram Phal Dwivedi)  
Dy. Registrar (GA, F&A)

*Aparajita Ojha*

(Aparajita Ojha)  
Director





**Office of the Director General of Audit (Central Receipt)  
New Delhi, Branch-Gwalior, IV Floor, Audit Bhavan, Jhansi Road,  
Gwalior - 474002 (M.P.)**

**No. Central/AMG-II/SAR/PDPM/IIITDM/2013-14/144**

**Dated:- 12.11.2014**

To,

**The Director,**

Pt. Dwarka Prasad Mishra

Indian Institute of Information Technology, Design & Manufacturing,

Dumna Road, PO- Khamaria,

Jabalpur-482005

**Subject:- Separate Audit Report on the accounts of Pt. DPM-IIITDM, Jabalpur for the year 2013-14.**

Sir,

Please find enclosed herewith Separate Audit Report on the accounts of Pt. D.P. Mishra-IIITDM, Jabalpur for the year 2013-14. You are requested to ensure that the audited accounts are adopted by the Board of Governors before placing the same before the Parliament.

2. The date of placement of the above Report on the table of both houses of the Parliament may please be intimated and a copy of the printed material may be provided to the undersigned for information.
3. It may please be noted that the Management letter is not to be presented before the Parliament.
4. Kindly acknowledge receipt.

**End:- 1. Separate Audit Report**

**Yours faithfully,**

**Sd/-**

**Director (Central)**





**Separate Audit Report of the Comptroller and Auditor General of India on the accounts of Pandit Dwarka Prasad Mishra Indian Institute of Information Technology, Design and Manufacturing, Jabalpur for the year ended 31 March 2014.**

We have audited the attached Balance Sheet of Pandit Dwarka Prasad Mishra Indian Institute of Information Technology, Design and Manufacturing (Pt. DP Mishra IIITDM), Jabalpur as at 31 March 2014, and the Income & Expenditure Account for the year ended on that date under Section 20 (1) of the Comptroller and Auditor General's (Duties, Powers & Conditions of Service) Act. 1971. The Audit has been entrusted for the period up to 2013-14. These financial statements are the responsibility of the IIITDM's management. Our responsibility is to express an opinion on these financial statements based on our audit.

2. This Separate Audit Report contains the comments of the Comptroller and Auditor General of India (CAG) on the accounting treatment only with regard to classification, conformity with the best accounting practices, accounting standards and disclosure norms, etc. Audit observations on financial transactions with regard to compliance with the Law, Rules & Regulations (Propriety and Regularity) and efficiency- cum- performance aspects etc. if any, are reported through Inspection Reports/ CAG's Audit Reports separately.
3. We have conducted our audit in accordance with auditing standards generally accepted in India. These standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatements. An audit includes examining, on a test basis, evidences supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of financial statements. We believe that our audit provides a reasonable basis for our opinion.
4. Based on our audit, we report that:
  - (i) We have obtained all the information and explanations, which to the best of our knowledge and belief were necessary for the purpose of our audit:
  - (ii) The Balance Sheet and Income & Expenditure Account dealt with by this report have not been drawn up in the format approved by Ministry of Finance, Government of India.





(iii) In our opinion, proper books of accounts and other relevant records have been maintained by the Institute in so far as it appears from our examination of such books.

(iv) We further report that:

## **A Balance Sheet**

### **Application of funds**

## **1 Fixed Assets**

### **1.1 Tangible Assets (Schedule-7) - ₹ 72.88 crore**

1.1.1 This includes ₹ 1.42 crore being net value of online journals. It was pointed out in previous SARs 2011-12 & 2012-13 that the accounting of online journals as fixed assets was not correct and the entire amount should have been accounted for as revenue expenditure irrespective of the magnitude. Online journals subscribed by the Institute by paying annual subscription charges were monthly, quarterly or yearly issues not having shelf life more than a year. Further the Institute in its Note to Accounts (Point D (b)) has mentioned that limited benefit could be derived from these journals and separated these from library books. In view of the above, expenditure on online journal should have been "treated as revenue expenditure. Not doing so resulted in overstatement of Fixed Assets by ₹ 1.42 crore and understatement of Expenditure by ₹ 1.42 crore.

1.1.2 This does not include ₹ 8.56 lakh being assets created through Hall Management Account and Student Benefit Account amounting to ₹ 7.05 lakh and ₹ 1.51 lakh respectively. This resulted in understatement of Assets by ₹ 8.56 lakh less depreciation not charged thereon and understatement of expenditure to the extent depreciation was not charged.

1.1.3 This does not include ₹ 5.60 lakh, being amount reimbursed to faculty members for purchase of computers, peripherals and other assets under contingent expenses of Cumulative Professional Development Allowance. This resulted in understatement of fixed assets by ₹ 5.60 lakh less depreciation not charged and overstatement of expenditure by same amount, (out of expenditure of ₹ 5.60 lakh, ₹ 0.30 lakh pertains to prior period).





## **2 Current Assets (Schedule-9) ₹ 19.93 crore.**

- 2.1 This does not include ₹ 96.59 lakh being closing balances of Hall management Account and student Benefit Account. This resulted in understatement of current assets and liabilities (corpus fund) by ₹ 96.59 lakh.

## **B Income and Expenditure Account**

### **1. Expenditure**

#### **1.1 Administrative and General expenses (Schedule-17) - ₹ 6.29 crore**

- 1 This includes ₹ 44.25 lakh being expenditure pertaining to the year 2012-13. This resulted in overstatement of expenditure and understatement of prior period adjustments by ₹ 44.25 lakh,
- 2 This includes ₹ 2.94 lakh being capital expenditure incurred on providing and fixing tree guards during the year. This resulted in overstatement of expenditure by ₹ 2.94 lakh minus depreciation thereon and understatement of assets by the same amount.
- 3 This does not include ₹ 22.89 lakh being expenses incurred out of Hall Management Account and Student Benefit Account during the year. This resulted in understatement of expenditure by ₹ 22.89 lakh and understatement of deficit and overstatement of Capital Fund by the same amount as these accounts have been separated from the main account.

## **C General**

1. The Annexure to the Separate Audit Report 2012-13 was not printed in the Annual Report of the Institute and not presented before the Parliament. Similar comment was made in the previous SAR also.
2. Disclosure regarding rate of depreciation for lab equipments amounting to ₹ 12.78 crore was not made.





3. Ministry of Finance, GOI had introduced Uniform Format of Accounts for all Central Autonomous Bodies in 2001 in consultation with CAG of India. Accounts of the Pt. D.P. Mishra IIITDM, Jabalpur have been prepared in the new format of account introduced by Ministry of Human Resources Development, Government of India for institutions of Higher Education which are still under finalization in consultation with this office.

### **Effect of Audit Comments on Accounts**

The net impact of the comments given in the preceding paras is that the Liabilities, prior period adjustments and Expenditure were understated by ₹ 73.7 lakh, ₹ 44.55 lakh and ₹ 112.40 lakh respectively and Assets overstated by ₹ 28.31 lakh (less depreciation).

#### **D Grant-in-aid**

The Institute received grants in aid of ₹ 80.00 crore during the year. In addition to the above, it had unspent balance of ₹ 0.87 crore of the previous year and internal receipts of ₹ 4.80 crore earned during the year. Thus out of the available funds of ₹ 85.67 crore, the Institute could utilize an amount of ₹ 75.25 crore leaving a balance of ₹ 10.42 crore as unutilized grant as on 31<sup>st</sup> March 2014.

Further, the Institute received ₹ 20.85 lakh as grants for Central Sector Scholarship Scheme during the year, out of which ₹ 1.86 lakh remain unutilized.

Besides above, the Institute also received project grants of ₹ 1.94 crore details of which are enclosed at Annexure-2.

#### **E Management letter**

Deficiencies which have not been included in the Audit Report have been brought to the notice of the PDPMIIITDM, Jabalpur through a management letter issued separately for remedial/ corrective action.

#### **F Lack of response**

Reply to the Draft Separate Audit Report was not received from the Management within the stipulated period of two weeks.





- (v) Subject to our observations in the preceding paragraphs we report that the Balance Sheet and Income & Expenditure Account dealt with by this report are in agreement with the books of accounts.
- (vi) In our opinion and to the best of our information and according to the explanations given to us, the said financial statements read together with the Accounting Policies and Notes on Accounts and subject to the significant matters stated above and other matters mentioned in Annexure-1 and 2 to this audit report give a true and fair view in conformity with accounting principles generally accepted in India:
  - (a) In so far as it relates to the Balance Sheet of the state of affairs of the Pt. D.P. Mishra IIITDM, Jabalpur as at 31 March 2014; and
  - (b) In so far as it relates to Income & Expenditure Account of the deficit for the year ended on that date.

**For and on behalf of the C & AG of India**

**Place : New Delhi**

**Dated : 12.11.2014**

**Sd/-**

**Director General of Audit**





## **Annexure-1**

### **1. Adequacy of Internal Audit System:**

Internal Audit functions have been outsourced. A Chartered Accountant, firm, appointed for the job, has conducted the internal audit and has submitted the internal audit report for the period up to 31 March 2014. The internal audit system was found to be adequate.

### **2. Adequacy of Internal Control System:**

The internal control system was found inadequate due to the following: -(i)  
The MR policy, and promotion policy was yet to be prepared.

- (ii) There was no back up and security policy of data stored in computers weakening IT controls.
- (iii) The institute does not maintain the expenditure control register and refund of revenue register.

### **3. System of Physical Verification of Assets:**

The physical verification of assets was not conducted since inception (2005-06) even though pointed out earlier years reports.

### **4. System of Physical Verification of Inventories:**

The physical verification of inventories was not conducted since inception (2005-06) even though pointed out in earlier audit reports.

### **5. Regularity in payment of statutory dues:**

The Institute was regular in payment of statutory dues.

Sd/-

Audit Officer/AMG-II



## Annexure-2

### Project wise details of Receipt and Utilisation of Grant-in-Aid during the year

Amount in ₹

Sl. No.	Name of the projects for which grants received or General Grants	Amount of grants brought forward from previous year FY 2012-13	Amount of grant received during the year 2013-14	Total grant received	Amount utilized during year FY 2013-14	Amount Refund FY 2013-14	Amount unutilised as on 31/03/2014 carried forward to next year
1	CONSTRAINED CURVE DRAWING ALGORITHMS FOR ROBOT MOTION PLANNING	6,410	2,05,533	2,11,943	1,88,856	0	23,087
2	ELECTRICAL CHARACTERIZATION OF NANO SCALE MOSFETS SCALABILITY ISSUES AND POSSIBLE SOLUTIONS	1,46,941	18,831	1,65,772	67,377	98,395	0
3	VIRTUAL LAB ON MANUFACTURING PROCESSES	9,02,009	43,427	9,45,436	72,340	0	8,73,096
4	IMPACT EVALUATION OF PUBLIC SERVICE GUARANTEE ACT-2010 (SCHOOL OF GOOD GOVERNANCE AND POLICY ANALYSIS)	52,303	2,648	54,951	0	0	54,951
5	VIRTUAL LAB ON AUTOMATED SYSTEMS	5,39,778	3,21,829	8,61,607	97,147	0	7,64,460
6	BRIAN CONTROL MOBILE ROBOT	11,36,890	43,154	11,80,044	5,49,375	0	6,30,669
7	PROCESS DEVELOPMENT FOR THE FABRICATION OF FREE FROM COMPONENT THROUGH INCREMENTAL SHEET FORMING	59,15,471	2,46,251	61,61,722	6,31,712	0	55,30,010
8	WAVELETS AND OPERATIONAL MATRIX BASED TECHNIQUES FOR INTEGRAL AND DIFFERENTIAL EQUATIONS	1,01,728	3,56,757	4,58,485	86,000	0	3,72,485
9	PRODUCTION ON COURSEWARE CONTENTS DEVELOPMENT FOR POST GRADUATE SUBJECT (E-PG-PATHSHALA)	0	7,17,183	7,17,183	22,120	0	6,95,063
10	TIME-VARYING HARMONICS AND INTER HARMONICS ESTIMATION IN REAL TIME FOR ONLINE APPLICATIONS	0	12,26,067	12,26,067	3,00,000	0	9,26,067
11	DIRECT ADMISSION OF STUDENTS ABROAD (DASA)	52,890	1,02,893	1,55,783	0	0	1,55,783
12	CONSULTANCY	1,58,009	46,268	2,04,277	5,090	0	1,99,187
13	CCMT 2013	0	4,13,827	4,13,827	4,13,827	0	0
14	JEE (MAIN) EXAMINATION 2014	0	60,000	60,000	0	0	60,000
15	CSAB-2013	0	4,40,340	4,40,340	4,40,340	0	0
16	GATE PROJECT EXPENDITURE	0	2,01,155	2,01,155	2,01,155	0	0
17	RESEARCH FELLOWSHIP AWARDED TO DR. ASHUTOSH SRIVASTAVA FROM INDO-US SCIENCE AND TECHNOLOGY FORUM, NEW DELHI	20,95,747	0	20,95,747	17,94,459	3,01,288	0
18	RESEARCH FELLOWSHIP AWARDED TO DR. RAJESH KUMAR PANDEY FROM INDO-US SCIENCE AND TECHNOLOGY FORUM, NEW DELHI	20,95,747	0	20,95,747	16,94,709	4,01,038	0
19	INDO-AUSTRALIA VISITING FELLOWSHIP FROM INDIAN NATIONAL SCIENCES ACADEMY	0	16,00,000	16,00,000	0	0	16,00,000
20	IEEE 2013 MOBILE CLOUD	0	1,04,178	1,04,178	1,04,178	0	0
21	INTERNATIONAL CONFERENCE ON COMPUTATIONAL INTELLIGENCE & INTELLIGENT SYSTEM	0	65,762	65,762	65,762	0	0
	<b>TOTAL</b>	<b>1,32,03,923</b>	<b>62,16,103</b>	<b>1,94,20,026</b>	<b>67,34,447</b>	<b>8,00,721</b>	<b>1,18,84,858</b>

Sd/-

Audit Officer/AMG-II







## Right to Information Act. 2005 Report (01-04-2013 to 31-03-2014)

The Institute paid emphasis on the implementation of Right to Information Act 2005. Institute has been taking initiatives to make the system transparent and trying to upload maximum information on the website suo-moto for the citizens of India. The implementation of RTI Act 2005 is ensured by the officials designated for the purpose, who are as follows:

<b>1. Shri Prabodh Pandey</b> Assistant Registrar Central Public Information Officer	<b>2. Shri R P Dwivedi</b> Registrar First Appellate Authority	<b>3. Prof P N Kondekar</b> Professor Transparency Officer
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### Other details are given below:

No. of RTI applications received in the Institute	: 78
No. of RTI applications replied by the Institute	: 74 (7 carried forward for the year 2014-15)
No. of first appeals received by the Institute	: 18
No. of decisions passed by the FAA of the Institute	: 15 (6 carried forward for the year 2014-15)
Amount collected as RTI fee and additional fee	: ₹ 1903/-