



**Pandit Dwarka Prasad Mishra
Indian Institute of Information Technology,
Design & Manufacturing Jabalpur**



Annual Report 2010-11



CONTENTS

Ser No	Description	Page No
1.	The Director's Report	1
2.	Historical Perspective	7
3.	Governance	10
	(a) The Board of Governors	
	(b) The Finance Committee	
	(c) The Buildings & Works Committee	
4.	Academic Committee	14
	(a) The Senate	
5.	Academic / Administration	
	(a) Faculty and Research Engineers	18
	(b) Academic Programmes	26
	(c) Research and Development	30
	(d) Books / Research Publications	31
	(e) Administration	36
	(f) Library	37
6.	Students' Life	39
7.	Students' Gymkhana	39
8.	The PDPM IIITDM-JAPAN Collaboration	41
9.	Workshops/Conferences/Seminars	52
10.	Development Plan	
	(a) Infrastructure Development	54
	(b) Laboratory Equipments / Infrastructure	56
11.	Annual Account	60
12.	Final Audit Report	65



THE DIRECTOR'S REPORT

Our Institute was established with a foresighted and noble mission of providing quality education and research in IT enabled design and manufacturing and began its journey in the year 2005 with the slogan "**Born for Innovation in Engineering**". We were fortunate to have IIT- Kanpur (IIT-K) as our mentor and Jabalpur Engineering College (JEC) as our host Institution in establishing this Institute. The enormous support extended by JEC and the guidance provided by IIT-K from time to time in the initial stages laid a sound foundation of this Institute.

Mr. Nelson Mandela writes about education in his autobiography, '**Long Walk to Freedom**'-

"Education is the great engine of development. It is through education that the daughter of a peasant can become a doctor, that the son of a mineworker can become the head of the mine, and that the child of farm workers can become the president of a great nation."

The foregoing quotation highlights the important role, the unique responsibility and opportunity that educational Institutes are capable of, in contributing to bring in social transformations to address the needs of the society through Science and Technology. The Stanford University was founded with the main goal of transforming students into "**cultured and useful citizens.**" This remains one of the most important goals of a university even now. The increased Global and Local competitiveness and unprecedented contemporary dynamic growth in economic and social sectors, have led to multifold expectations from educational institute, especially those engaged in R&D activity. While maintaining the quality and standards of education is an important mission today, the added requirements are to search for innovative methods to combat the present deficiency in employable youth with the demands of the industry and the society at large.

We have pleasure in reporting the achievements and progress of the Institute within a short span of six years and in particular for the year 2010-11. We begin by reporting our academic activities in the last year.

ACADEMIC ACTIVITIES

First Design Workshop 2010.

The Institute organized a design workshop DeW 2010 during October 11-15, 2010. The Workshop was aimed at providing a platform for interaction between aspiring designers, researchers and design practitioners on recent trends in design theory and practice. This was the first international event successfully organized by the Institute with the support of Ministry of Foreign Affairs, Govt. of Japan. Workshop was well attended by people from industries and academicians. Lectures were delivered by eminent experts that included - Professor Ralph Bruder from Technical University of Darmstadt, Professor H.P. Dikshit, SGGPA, Bhopal, Professor S.G. Dhande, IIT Kanpur, Professor Gurumoorthy, IISc Bangalore, Professor Imre Horvath, Dr. Zoltan Rusak from Technical University of Delft, Professor Karunakaran, IIT Bombay and seven experts from Universities and industries of Japan including Professor Y. Ito and Professor M. Kiuchi. Professor Puneet Tandon and Dr. Prashant Kumar Jain were the convener and co-convener respectively of the workshop with organizational and technical support from the faculty members of the Institute.



World-Wide Consortium of Design Services (WWC-DS)

We are heading towards an era where Ubiquitous Networked Society (UNS) is going to play an important role. Issues such as sustainability, well-being, globalization, social networking and especially, reaching the unreached are considered to be of utmost importance. These issues are bound to have an impact on academic education from the point of view of both content and approach. With an aim to provide a seamless environment to the students where they could learn through interaction with their counterparts in the rest of the world and could gain experience through discussions with experts in various fields of design around the globe the Institute recently partnered in constituting a World Wide Consortium of Design Services with following other partners from various continents.

- Delft University of Technology, the Netherlands
- Purdue University, Lafayette campus, United States of America
- Vaal University of Technology (VUT), South Africa
- EAFIT, Medellin, Columbia

The consortium seeks to accomplish the following goals:

- Planting the seed of a new international leadership, creative community and professional network in the proliferation of ubiquitous technology-enabled innovation in social context.
- Researching in and applying design methodologies for ubiquitous computing technology to support product innovation and design in various social and cultural contexts.
- Nurture knowledge transfer between partner Institutes in the form of joint research projects, staff exchanges, joint PhD programmes, through video-conferencing based courses and organizing research symposia.

It is heartening to inform that the Institute successfully launched a course on "Artifact and service innovation with ubiquitous technologies" jointly with other four partners for postgraduate students of all the five Institutes/universities. The course is running successfully and will be completed in April, 2011. It has been a new and wonderful experience for students and associated faculty as well. Dr. Tanuja Sheorey is the course coordinator and mentor from the Institute. Dr. Vijay Kumar Gupta and Dr. Prabin Kumar Padhy are also participating in the programme as mentors.

Project Based Internships

As we all know, the Institute has a unique agenda of providing world class education in the field of design and manufacturing, keeping in view, the three important engineering disciplines of computer science and engineering, electronics and communication engineering and mechanical engineering. This is a challenge, infact the greatest challenge, as building a roadmap for education in nonconventional and emerging areas is a Herculean task. I am feeling proud in announcing that we have taken up this challenge and with the efforts of our dedicated, brilliant faculty, students and the support extended by members of the Senate, we will soon manifest the results.



From the year 2011-12, we are going to add a new dimension to our curriculum called “Project Based Internship”. Under the programme, each student will be required to undergo an internship of about 25 weeks in an industrial organization / R&D organization or a reputed educational institute. The internship aims at helping the students, practice the theory taught in the classrooms and gain meaningful experience to meet their future career goals. In the words of Mahatma Gandhi – “**An ounce of practice is worth more than tons of preaching**”.

RESEARCH AND DEVELOPMENT PROJECTS

We have now gained momentum in our research and development activities. I feel proud in reporting that faculty members of the Institute have advanced research collaboration with some of the Japanese experts and two joint research projects funded by DST-JSPS were taken up by Prof. Puneet Tandon, Dr. Tanuja Sheorey, Dr. V.K. Gupta and Dr. Asutosh Shrivastava last year. One of the projects on 'Nano-Scale MOSFET's-Scalability Issues and Potential Dielectrics' has been successfully completed while the other on 'Development of a micro pump with NEMS sensing function for an automatic blood collecting and measurement system' is likely to be completed this year. Dr Mukesh Kumar Roy has also been collaborating with Prof. Ming Yang in two of his projects funded by Japan Govt. and Tokyo Metropolitan University related to Nanotechnology applications in bio-medical sciences.

Projects of National Importance –

I would like to also place on record, the contribution made by our faculty in the National Mission on Education through ICT (NMEICT) by developing virtual labs on automated systems and manufacturing. Dr. Tanuja Sheorey, Dr. Vijay Gupta and Prof. Puneet Tandon have been working on these projects. The projects are part of a larger project sanctioned to IIT Kanpur. The outcome will be uploaded in NMEICT website for the benefit of engineering students across India.

Along with these, the faculty members are also working on a number of sponsored research / development projects. This year, quite a few projects were submitted by the faculty to various funding agencies.

Design Clinic Scheme

The Institute is planning to participate in the Design Clinic Scheme of Ministry of Micro, Small and Medium Scale Enterprises. The scheme aims at building a common platform of interaction between MSME sector and design experts to provide expert advice and solutions on real time design problems, resulting in continuous improvement and value addition for existing products. A core group of four members was constituted with following members – Prof. Amit Ray, Dr. P.K. Jain, Dr. Prabir Mukhopadhyay (Coordinator) and Mr. TVK Gupta. MSME entrepreneurs interacted with the faculty and discussed certain issues related to product refinement and process improvement. Progress in this direction is satisfactory.

STUDENTS

- **Intake and Strength:** In the year 2010-11, the intake of students for undergraduate admissions was increased to 261 from 183 in the previous year. The intake for postgraduate admissions including Ph.D. was 105. The actual strength of students was 661 in the Institute.



- **Students' Activities:** Apart from participation in academic projects of the faculty, students actively participated in various intra and inter Institutional technical, sports and cultural festivals. The annual sports festival *Gusto*, technical festival *Abhikalpan* and the cultural festival *Tarang* were well organized by the students with a large participation of students from other colleges of Jabalpur. Apart from this, students also participated in events organized by other prestigious Institutes of the country and bagged prizes in such competitions.
- **Students' Placement Status.** 46 out of 68 qualifying students were placed with the efforts of the placement office of the Institute. Special classes and group discussion sessions were held to enable the students to improve their communication and soft skills. This year two of the public sector units have also recruited our students through campus placement and I am sure the number of PSUs recruiting our students will be improved next year. One of our students has been placed overseas with Amada, Japan.

Some of our bright students are also taking interest in higher education and have obtained good scores in GATE /GRE/CEED.

FACULTY

The last year was satisfying from various dimensions. (i) Dr. Pritee Khanna has been awarded JSPS post doctoral fellowship and is presently in Tokyo Institute of Technology. (ii) Dr. Ashish Kundu has been awarded BOYSCAST fellowship and is presently visiting National University of Singapore. Both of them have also authored books that are published by VDM Publishing House and LAP Lambert Publishers. (iii) One of the research papers of Professor Puneet Tandon with his student Md. Rajik Khan was listed in top four hottest papers in the prestigious journal - Computer Aided Design. (iv) Dr. Mukesh Kumar Roy was invited by Prof. Ming Yang of Tokyo Metropolitan University for research collaboration under JSPS programme for two months. (v) Dr. Rajesh K. Pandey was awarded IASc-INSA-NASI summer research fellowship-2010 to work with Prof. B.N. Mandal at ISI Kolkata for two months during summer vacation (vi) There was a significant improvement in the research outcome of the faculty in the year 2010-11. Twenty six research papers were published by the faculty of the Institute in peer reviewed research journals and a similar number of papers were published in conference proceedings (vii) Five research/development/consultancy projects were sanctioned by various funding agencies. These included some research and development projects jointly carried out by the Institute faculty and Japanese experts.

In order to promote participation of faculty in national and international conferences, symposia and workshops, the Institute has been providing financial assistance to the faculty for presenting their papers and invited talks. This year there was a substantial increase in participation of faculty in international conferences for paper presentation/invited talk/chairing sessions.

IIITDM-JAPAN COLLABORATION

Japan collaboration of the Institute is a part of an agreement between the Government of India and Japan for strategic orientation towards global partnership. Under the collaboration, Govt. of Japan has been providing support to develop the Institute as a Centre of excellence in engineering education. As we know, Japan was hit by one of the most severe earthquakes and tsunami of the century this year. We were really



astonished by the commitment and professionalism of people of Japan. In spite of such devastating effects, they have continued to extend their help this year as well.

This year, some of the renowned experts from Japan visited the Institute. Among them were Professor Takashi Nanya, University of Tokyo, an expert in the field of dependable computing and VLSI design methodologies, Professor Miura, National Institute of Informatics, Tokyo, an expert in high performance and grid computing and supercomputer architecture and Professor Iwatsuki of Tokyo Institute of Technology, expert in Robotics and Mechatronics. They delivered lectures and extended support to our teaching programme. Twelve other experts also visited the Institute for delivering lectures to contribute in our teaching programme. Three post graduate and twelve undergraduate students will be going for an exposure visit to Japan and three more will visit Japan for internship in GE Energy, Nakata and Canon.

FINANCE

The financial year 2010-11 was satisfactory in terms of financial inputs and expenditure. Institute received a Grant in Aid of Rs. 45.00 Crores under Plan during the F.Y. 2010-11 and made an expenditure of Rs. 44.55 crores keeping a balance of Rs. 44.06 lakhs at the end of the Financial Year. Major expenditures were incurred on construction of buildings and setting up of labs apart from salary, administrative and establishment expenditure. The final accounts of the institutes have been compiled and audited well in time.

CAMPUS AND INFRASTRUCTURE DEVELOPMENT ACTIVITIES

Development of civil infrastructure has been one of the greatest challenges for the Institute. With a great amount of painstaking efforts of our campus advisory committee, design and plan of several buildings have been finalized with the architects in the year 2010-11 and work has been handed over to CPWD for execution. Following buildings are in the pipeline for construction and hopefully the work will start in the beginning of the year 2011-12. (i) Lecture Hall and Tutorial Complex (ii) Hall of Residence IV (iii) Narmada Residency II (iv) Visitors' Hostel (v) Post Graduate Hostel Phase I (vi) Road network (vii) Basket Ball Court Complex and (viii) Students Activity Centre. Other buildings which are also ready for execution include Narmada Residency III and Library cum Computer Centre.

In order to meet the immediate need of class rooms, faculty offices and display of the design projects of the Institute and other such requirements, the Institute also carried out some minor civil works such as temporary Lecture Hall for 300 students, Design display unit, electronics lab, play field, tennis court, volleyball court, external electrification between Sanjeev Bhargava Core Lab Complex and Hall of Residences. Further, order for a 1000 KVA Diesel generator was placed to ensure uninterrupted power supply to the entire campus. The DG set will be installed in the year 2011-12. The work of dedicated feeder for electric supply to the Institute was also completed this year. Due to increasing number of students, faculty and staff, systematic sewerage treatment had become very important. Since the process of finalization of the master plan of the Institute was in progress, temporary installation of sewerage treatment plant was done to cope with the current problems and in order to keep the campus clean and green.

Every year, the lab infrastructure in the Institute is growing with increasing number of students and faculty. While the core labs are being equipped keeping in mind the number of students, faculty research labs are also updated with the requirement of the faculty every year. In the year 2010-11, we enhanced our



computing facilities and network infrastructure with 150 more systems and some useful software packages for scientific studies. Further 1 GBps of leased line connectivity was obtained through BSNL under NMEICT. We are also enhancing our electronics lab now with our programme to build communication engineering lab, microwave radiation lab, nano-electronics and VLSI design lab, Signal systems and control lab.

All these developments have been possible with the constant contribution of each member of our IIITDM family and support and help from countless people. We express our sincere thanks to each one of them.

Jai Hind!



HISTORICAL PERSPECTIVE

Globalization has created uniformity in customer expectations all over the world. With the opening up of Indian economy, our manufacturing sector has to compete globally even for the domestic market. This requires strong products with leading technology/quality and compelling cost advantage. Suitably trained manpower is critical to achieve this goal. Large pool of highly trained manpower has provided India leadership position in knowledge-based industries. Efforts are now required to translate this leadership in building indigenous manufacturing capabilities. Whereas, China is already a leader in low-tech bulk manufacturing, India could emerge as leader in brain-intensive manufacturing. This would require skill sets appropriate for design, development and prototyping that too - using modern tools and techniques.

The present system of technical education – though huge and diverse has focus on analytical capabilities. Product Lifecycle Management (PLM) approach to entire cycle from R & D, manufacturing, quality assurance, distribution, maintenance and disposal of new products is gaining currency. In other words, there is a need for a design and manufacturing programme that is of a holistic nature. It should include all aspects such as mechanical, electrical/electronics as well as software engineering. In due course of time, disciplines of chemical engineering and bioengineering will be integrated.





Keeping the above in view, the **Ministry of Human Resource Development, Department of Higher Education** felt the need to set up a national institute devoted exclusively for Information Technology (IT), Design & Manufacturing (D & M). It was envisaged that such an academic institute would promote excellence in the desired areas of specialization and would facilitate and promote the competitive advantage of Indian products and manufacturing in global markets.

Government of India established Pandit Dwarka Prasad Mishra Indian Institute of Information Technology, Design & Manufacturing [PDPM IIITDM] at Jabalpur, Madhya Pradesh. The Institute was started under the Indian Societies Registration Act and was registered on January 24, 2005 with the Registrar of Societies at Jabalpur under Madhya Pradesh Societies Registration Act 1973.

The foundation stone of the new Institute was laid by Shri Arjun Singh, the then Minister of Human Resource Development (MHRD) on February 7, 2005. The academic session of PDPM IIITDM Jabalpur started from July – August, 2005. It was also conceived that the Institute would initially operate from the temporary location at the IT Bhawan of the Jabalpur Engineering College at Ranjhi, Jabalpur. Prof Sanjay G. Dhande, Director, IIT Kanpur was given the additional charge as the Director of the Institute. Indian Institute of Technology Kanpur was assigned the responsibility to guide the Institute in its incubation.

Simultaneously, the efforts were on to find suitable land where the campus of the new Institute could be built. Thus, a piece of land of 250 acres, near the Dumna Airport of Jabalpur was identified and was handed over to the Institute by the Government of Madhya Pradesh on May 03, 2006. The construction work of Phase I buildings was started in 2006 after planning and designing. Presently, the Institute is operating from its own campus at Dumna Airport road, Jabalpur. First few buildings have come up and others are coming up soon.

a) **Aims and Objectives:** The aims and objectives of the PDPM IIITDM Jabalpur are summarized below:

- To provide education and training, at both undergraduate as well as postgraduate levels; to persons of outstanding abilities who could provide leadership to Indian industry in global competitive environment.
- To carry out advanced research and development activities in IT enabled design and manufacturing technologies, both on its own and on sponsorship basis for the industry.
- To organize conferences, seminars, workshops and such other activities for the dissemination of knowledge to industry.

b) **Academic Programmes:** The Institute started with the following undergraduate programmes in the year 2005.

Bachelor of Technology (**B.Tech.**) in

- Computer Science & Engineering,
- Electronics & Communication Engineering,
- Mechanical Engineering



Post Graduate programmes from 2006 onwards

Master of Technology (**M.Tech.**) in

- Computer Science & Engineering
- Electronics & Communication Engineering
- Mechanical Engineering

Subsequently, **Ph.D.** programme was also started in the year 2008 in all the above three disciplines. Apart from this, keeping in view the main theme of the Institute, a Master of Design (**M.Des.**) programme was started in August 2008. The programme is in line with those already running in established Institutes such as IIT Bombay, IIT Kanpur, IIT Delhi, IIT Guwahati and IISc Bangalore. The Institute has decided to start **Ph.D.** programme in Design and Masters (**M.Tech.**) programme in Mechatronics from the academic year 2011-12.



GOVERNANCE

Administration and Governance : The Institute is governed by the MHRD through an MOA. The administrative structure is as follows :-

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

The Board of Governors

Five members of BOG Prof. S.G. Dhande, Prof. H.P. Dikshit, Prof. M. Harbola, Dr. Manoj Gour and Prof. Rajeev Sangal had completed their tenure during the year and were accordingly replaced by new members namely Prof. R.K .Shyamasundar, Prof. U.B. Desai, Prof. Pradeep Mathur, Shri Sanjay Correa and Shri N. Ravi Shanker. Col. (Retd.) P.S. Sandhu also joined as Registrar and Secretary to the BOG.

Members	Designation	
Shri A. K. Singh, IAS (Retd.) Member, PESB, New Delhi	Chairman	
Shri Sanjay Correa Vice-President and M.D. GE India Technology, Bangalore	Member	w.e.f. February 14, 2011
Prof. U.B. Desai Director IIT Hyderabad	Member	w.e.f February 14, 2011
Prof. S.G. Dhande Director IIT Kanpur	Member	Up to February 13, 2011
Prof. H.P. Dikshit Director General School of Good Governance and Policy Analysis Bhopal	Member	
Shri. S. D. Dimri Member, Ordnance Factory Board Kolkatta	Member	



Dr. Manoj Gour Executive Chairman, CEO & MD Jaiprakash Associates	Member	Up to February 13, 2011
Prof. Manoj Harbola Professor IIT Kanpur	Member	Up to February 13, 2011
Mr. Anurag Jain, IAS Secretary to CM & Department of IT Govt. of MP, Bhopal	Member	
Prof. Ashok Jhunjunwala Professor IIT Madras	Member	
Shri Amit Khare, IAS Joint Secretary (ICC), MHRD, New Delhi	Member	
Prof. Pradeep Mathur Director IIT Indore	Member	w.e.f. February 14, 2011
Prof. Aparajita Ojha, Director PDPM IIITDM Jabalpur	Member Ex-officio	
Prof. Rajeev Sangal Director IIIT Hyderabad	Member	Up to February 13, 2011
Shri N. Ravi Shanker, IAS Joint Secretary Department of Information Technology	Member	w.e.f. February 20, 2011
Prof. R. K. Shyamasundar Professor TIFR Mumbai	Member	w.e.f. February 14, 2011
Prof. Puneet Tandon Professor PDPM IIITDM Jabalpur	Member	



Mr. Ashok Thakur, IAS
Special Secretary, MHRD, New Delhi

Member

Col (Retd.) P.S. Sandhu
Registrar
PDPM IIITDM Jabalpur

Secretary

w.e.f. October 01, 2010

Three meetings of the BOG were held during the year.

The Finance Committee

Members

Designation

Shri A.K. Singh, IAS (Retd.)
Member, PESB, New Delhi

Chairman

Mrs. Pratima Dikshit
Divisional Head (IIITs)
Department of Higher Education,
MHRD, Government of India, New Delhi

Member

Mr. Anurag Jain, IAS
Secretary to CM & IT Department
Government of Madhya Pradesh

Member

Prof. Aparajita Ojha
Director

Member
Ex- officio

Mr. Sanat Kumar Ray, IAS
Joint Secretary & Finance Advisor
MHRD, Government of India, New Delhi

Member

Shri Naveen Soi
Director(F)
MHRD, Government of India, New Delhi

Member

Shr. R.P. Dwivedi
Deputy Registrar (Finance & Accounts)

Secretary
Ex- officio

Three meetings of the Finance Committee were held during the year.



The Buildings & Works Committee

Member	Designation
Prof. Aparajita Ojha Director PDPDM-IIITDM Jabalpur	Chairperson
Ms. Pratima Dikshit Director (T) MHRD, Government of India, New Delhi	Member
Prof. Manoj Harbola Department of Physics IIT Kanpur	Member
Shri Pankaj Kshatriya, Superintending Engineer MPSEB, Jabalpur	Member
Dr. C. T. Mahajan Additional Adviser MHRD, Government of India, New Delhi	Member
Prof. Puneet Tandon PDPM IIITDM Jabalpur	Member
Shri A. K. Verma Superintending Engineer CPWD (CZ), Bhopal	Member
Shr. R.P. Dwivedi Estate Officer PDPM IIITDM Jabalpur	Secretary

The building and Works Committee met twice during the year.



THE SENATE

The Senate of the Institute during the year has been as follows:

Chairperson : Prof. Aparajita Ojha, Director, PDPM-IIITDM Jabalpur

Members :

Name and Address	Designation
Prof. M. Adhikari, Emeritus Fellow PDPM IIITDM Jabalpur	Professor
Prof. R. Chatterjee Department of Physics IIT Delhi	Professor
Prof. S.K. Choudhary Department of Mechanical Engineering IIT Kanpur	Professor
Prof. P.C. Das Visiting Professor National Institute of Science Education & Research, Bhubaneswar	Professor (Retd.)
Prof. H.P. Dikshit Director General School of Good Governance and Policy Analysis Bhopal	Professor (Retd.)
Prof. Ashish Dutta Department of Mechanical Engineering, IIT Kanpur	Associate Professor
Prof. Vinayak Eswaran Department of Mechanical Engineering IIT Kanpur	Professor
Prof. Phalguni Gupta Department of Computer Science & Engineering IIT Kanpur	Professor
Prof. Manoj Harbola Department of Physics IIT Kanpur	Professor



Prof. P.K. Jhinge Principal, Jabalpur Engineering College, Jabalpur	Professor
Prof. B.L. Mishra RDVV Jabalpur	Professor (Retd.)
Prof. Laxman Pandey Department of Physics R.D. University, Jabalpur	Professor
Prof. Amit Ray, Emeritus Fellow PDPM IIITDM Jabalpur	Professor
Prof. P. Krishna Reddy International Institute of Information Technology Hyderabad	Professor
Prof. Huzur Saran Department of Computer Science & Engineering IIT Delhi	Professor
Prof. Puneet Tandon PDPM IIITDM Jabalpur	Professor
Shri Siddhalingprabhu Amane Tata Motors, Ahmedabad Industrialist	Assistant General Manager (System & IT)
Dr. V. K. Gupta PDPM IIITDM Jabalpur	Associate Professor
Dr. Sameer Khandekar Department of Mechanical Engineering IIT Kanpur	Associate Professor
Dr. Pritee Khanna PDPM IIITDM Jabalpur	Associate Professor
Dr. Uday Khedkar Department of Computer Science & Engineering IIT Bombay	Professor
Shri. Awadhesh Parihar Infosys Technologies Limited, Bangalore	Global PLM Head Industrialist



Dr. Tanuja Sheorey PDPM IIITDM Jabalpur	Associate Professor
Dr. Bhupendra Gupta PDPM IIITDM Jabalpur	Assistant Professor
Dr. Subir Singh Lamba PDPM IIITDM Jabalpur	Assistant Professor
Dr. Prabin Kumar Padhy PDPM IIITDM Jabalpur	Assistant Professor
Dr. M. Ravibabu PDPM IIITDM Jabalpur	Assistant Professor
Dr. Mukesh Kumar Roy PDPM IIITDM Jabalpur	Assistant Professor

Secretary :

Col. (Retd.) P. S. Sandhu	Registrar
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The Senate held three meetings during the year.

Standing Committees of the Senate:

Undergraduate Committee of Senate (UGCS)

● Dr. P. K. Padhy	Convener
● Dr. Dinesh Vishwakarma	Member
● Dr. Pritee Khanna	Member
● Dr. S. S. Lamba	Member
● Dr. Tanuja Sheorey	Member
● Mr. Avinash Choudhary	Student member
● Mr. Anilesh Sharma	Student member

Postgraduate Committee of Senate (PGCS)

● Dr. P. K. Padhy	Convener
● Dr. Pritee Khanna	Member
● Dr. P. N. Kondekar	Member
● Dr. V. K. Gupta	Member
● Mr. Rajik Khan	Student member
● Mr. Nishet Soni	Student member



Students Prizes and Awards Committee of Senate (SPACS)

- Dr. Sunil Agrawal Convener
- Dr. Goutam Dutta Member
- Dr. Mukesh Kumar Roy Member
- Dr. R. K. Pandey Member

Students Advisory Committee of Senate (SACS)

- Dr. P K Jain Convener
- Dr. Anil Kumar Member
- Dr. Lokendra Balyan Member
- Dr. Tanuja Sheorey Member
- Mr. Pranav Roy Student member
- Ms. Gauri A. Dani Student member

Library Committee of Senate (LCS)


- Dr. Mukesh Kumar Roy Convener
- Prof. Amit Ray Member
- Dr. Bhupendra Gupta Member
- Dr. M. Ravibabu Member
- Dr. Pritee Khanna Member
- Dr. Tanuja Sheorey Member





ACADEMIC / ADMINISTRATION

Faculty and Research Engineers

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 thirty five faculty members. 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 37. Following is a list of faculty, research engineers and their specializations.

Name and Designation	Professional Details	Areas of Interest & Specialization	
	Prof. Aparajita Ojha Director	PhD from RDVV Jabalpur, Former Professor at RDVV Jabalpur, former Director of University Institute of Comp. Science and Appl., Director of Library Services, Head of Lib. and Information Sciences at RDVV.	Geometric Modeling, Computer Aided Geometric Design, Finite Elements, Spline Theory, Approximation Theory, Wavelet Analysis, Object Oriented/ Aspect Oriented Modelling and Design, Security Aspects of Online Payment Systems

EMERITUS PROFESSORS

	Prof. M. Adhikari Emeritus Fellow	PhD from RDVV Jabalpur	Post-Colonialism, Feminism, Eco-criticism, New Historicism and Works of W.S. Maugham, R.N. Tagore, Jawaharlal Nehru, Alice Walker, Toni Morrison, Anita Desai, Shobha De, F. Dhondy, Arundhati Roy, Shashi Deshpande, Michael Ondaatje, Khuswant Singh, Amitav Ghosh
	Prof. Amit Ray Emeritus Fellow	PhD. from The University of Georgia at Athens	Art & Design, Environmental Ethics, Environmental Design, Design and Aesthetics and Product Design and Design Curriculum Development



PROFESSORS

Name and Designation

Professional Details

Areas of Interest & Specialization



Prof. Puneet Tandon
 Professor

PhD from IIT Kanpur

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

ASSOCIATE PROFESSORS

Name

Professional Details

Areas of Interest & Specialization



Dr 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.



Dr Vijay Kumar
 Gupta

PhD from IIT Bombay

Smart Structures, Machine Design, Finite Element Methods



Dr Pritee Khanna

PhD from Kurukshetra
 University

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



Dr. 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



Dr. Atul Gupta

PhD from IIT Delhi

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

ASSISTANT PROFESSORS

Name

Professional Details

Areas of Interest & Specialization



Dr. Subir Singh Lamba

PhD from IIT Kanpur

Parallel Computing, Computational Fluid Dynamics, Hyperbolic IBVP, 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. Prabin Kumar Padhy

PhD from IIT Guwahati

Automatic Controller Tuning, Identification and Control of Processes



Dr. M Ravi Babu

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. Bhupendra
Gupta

PhD from IIT Kanpur

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



Dr. Sunil Agrawal

PhD from IIT Kanpur

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



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. Prashant
Kumar Jain

PhD from IIT Delhi

Rapid Prototyping & Tooling, CNC machining, Geometric Modeling, CAD/CAM Integration, Computational geometry, Design automation



Dr. Ashish Kumar
Kundu

PhD from JNCASE

Nano Technologies in
Manufacturing, Solid State
Physics



Dr. Goutam Dutta

PhD from IIT Bombay

Computational fluid dynamics,
Heat Transfer, Two phase flow
instability analysis, Nuclear
coupled thermal-hydraulic
instability analysis



Dr. H. Chelladurai

PhD from IIT Kanpur

Condition Monitoring, Virtual
Instrumentation and Artificial
Neural Networks



Dr. Ashutosh
Shrivastava

PhD from ECE Jadavpur, CEERI
Pilani

Microelectronics/VLSI, Silicon
Detectors/ MEMS



Dr. Dinesh Kumar
Vishwakarma

PhD from IISC Bangalore

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



Dr. D. Satyanarayana

PhD from IIT Guwahati

Computer Science &
Engineering



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. Lokendra
Balyan

PhD from IIT Kanpur

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



Dr. Rajesh Kumar
Pandey

Ph D from BHU Varanasi

Wavelet Analysis; Numerical
Analysis



Dr. Anil Kumar

Ph D from IIT Roorkee

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



Dr. Rajib Kumar
Jha

PhD from IIT Kharagpur

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



Mr. Manish
Shrivastava

Pursuing PhD from IIT Bombay

Natural Language Processing,
Artificial Intelligence,
Graphical Models, Machine
learning

VISITING FACULTY

Name

Professional Details

**Areas of Interest &
Specialization**



Mr. Hari Kumar
Voruganti

PhD from IIT Kanpur

Computer Modeling
Optimization, Introduction to
robotics, Robot Motion,
Planning, Engineering
Mathematics



Mr T.V.K. Gupta

Pursuing PhD from IIT Kanpur

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

RESEARCH ENGINEERS

Name

Professional Details

**Areas of Interest &
Specialization**



Mr Awadhesh K
Singh

M.Tech from Asian Institute of
Technology Pathumthani,
Thailand

Mechatronics, Design of
MEMS Devices



Mr Sachin Kumar
Jain

M.Tech from IIT Rorkee

Power Electronics



Mr K Soundra
Pandian

B.E. from Madras University

Electronics & Communication,
Instrumentation, Embedded
Programming, Mechatronics



Mr. B. Mukherjee

M.Tech. from University of
Delhi

Microwave Electronics



Mr. D. S. Ramteke

M.Tech from IIT Guwahati

Machine Design, Rotor
dynamics



Mr. Saket Saurav

BE MPCT Gwalior

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



Academic Programmes

Under Graduate Programme

1. Institute offers Four Year Undergraduate degree (B.Tech.) programme in:-
 - (a) Computer Science & Engineering
 - (b) Electronics & Communication Engineering
 - (c) Mechanical Engineering
2. Emphasis is laid on synthesis, creativity, hands-on experience, innovation, communication and entrepreneurship. Learning is largely based on real-world situation in different sectors. This would bring in the concept of verticals which could be the :-
 - (a) Automobile sector,
 - (b) Aerospace and Defence sector,
 - (c) Industrial Machinery sector,
 - (d) Engineering Services sector,
 - (e) High-tech Electronics and
 - (f) Consumer Durables/ Life-style Products etc.
3. For each vertical, key industry players are being identified and invited to partner with the Institute for both academic and research activities.

B. Tech Programme

2006 Batch

Branch	OP	SC	ST	Total
CSE	21	04	01	26
ECE	21	04	0	25
ME	18	04	0	22

2007 Batch

Branch	OP	SC	ST	Total
CSE	21	04	01	26
ECE	21	04	01	26
ME	20	04	01	25



2008 Batch

Branch	OP	OBC	SC	ST	Total
CSE	33	04	08	02	47
ECE	34	04	07	04	49
ME	29	05	05	03	42

2009 Batch

Branch	OP	OBC	SC	ST	Total
CSE	19	02	05	04	30
ECE	34	11	09	05	59
ME	32	11	08	05	57

2010 Batch

Branch	OP	OBC	SC	ST	Total
CSE	44	24	13	06	87
ECE	42	23	13	06	84
ME	42	23	13	07	85

Academic Performance Evaluation Committee Report Semester I (2009-10) UG.

Batch	No. of Students passed	No. of Students retained	No. of Students Terminated	Total No. of Students
2006	73	01	00	74
2007	73	02	00	75
2008	121	18	00	139
2009	138	09	00	147

Post Graduate Programme

4. Institute offers Post graduate degree programme in:
- (a) **M.Tech.**
 - (i) Computer Science & Engineering (CSE)
 - (ii) Electronics & Communication Engineering (ECE)
 - (iii) Mechanical Engineering (ME)
 - (b) **M.Des.** Master of Design



M. Tech Programme

2008 Batch

Branch	OP	OBC	SC	ST	Total
CSE	02	0	0	0	02
ECE	02	02	0	0	04
ME	0	01	0	0	01
MDes	01	0	02	0	03

2009 Batch

Branch	OP	OBC	SC	ST	Total
CSE	05	02	01	00	08
ECE	03	01	02	01	07
ME	00	02	00	00	02
MDes	06	00	01	00	07

2010 Batch

Branch	OP	OBC	SC	ST	Total
CSE	08	04	02	00	14
ECE	07	04	01	00	12
ME	01	02	00	00	03
MDes	03	01	00	00	04

Academic Performance Evaluation Committee Report Semester I (2009-10) PG.

Batch	No. of Students passed	No. of Students retained	No. of Students Terminated	Total No. of Students
2007	01	00	00	01
2008	13	00	00	13
2009	25	00	02	27



Ph. D Programme

The Institute offers Ph.D. in :

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

2007 Batch

Branch	OP	SC	ST	Total
ME	01	00	00	01

2008 Batch

Branch	OP	SC	ST	Total
CSE	01	00	00	01
ECE	01	00	00	01
ME	01	00	00	01

2009 Batch

Branch	OP	SC	ST	Total
CSE	01	00	00	01
ECE	01	00	00	01
ME	01	00	00	01

2010 Batch

Branch	OP	SC	ST	Total
CSE	03	00	00	03
ECE	01	00	00	01
ME	02	01	00	03



Research and Development

Research Projects approved / completed during the last 5 years are as follows :

Research Projects Details

Project Title	Duration	Investigator	Funding Agency	Amount Sanctioned	Status
Geometric Modeling, Analysis and Design for Generic Definitions of Custom Engineered Cutting Tools	2008-11	PI: Prof. Puneet Tandon Co-PI(s): Dr. Vijay Kumar Gupta Dr. Pritee Khanna	DST, Ministry of Science & Technology, Government of India	Rs. 25.26 Lakhs	Ongoing
Improved Controller Design for AQM Routers Supporting TCP Flows	2008-11	PI: Dr. Prabin Kumar Padhy	DST, Ministry of Science & Technology, Government of India	Rs. 3 Lakhs	Ongoing
Constrained Curve Drawing Algorithms for Robot Motion Planning	2010-13	PI: Prof. Aparajita Ojha Co-PI : Dr. Tanuja Sheorey	DST, Ministry of Science & Technology, Government of India	Rs. 9,23,400/-	Ongoing
Development of a micro pump with NEMS sensing function for an automatic blood collecting and measurement system	2010-12	PI: Prof. Puneet Tandon Co-PI(s): Dr. Vijay Kumar Gupta Dr. Tanuja Sheorey	DST, Ministry of Science & technology, Government of India & Japanese Society for Promotion of Science (JSPS) Japan	Rs. 4.38 lakhs (Grant from the Indian Funding Agency)	Ongoing
Carpet Dedusting and Carpet Washing Machine	2007- 2011	PI: Prof Amit Ray	The Ministry of Textile (Handicraft Commission), New Delhi	Rs.12,89,000	Completed
Virtual Lab: Automated Systems	2010-12	PI: Dr. Tanuja Sheorey Co-PI(s): Dr. Vijay Kumar Gupta Prof. Puneet Tandon	MHRD, Govt. of India	Rs. 40 Lacs	Ongoing
Virtual Lab: Manufacturing Engineering	2010-12	PI: Dr. Vijay Kumar Gupta Co-PI(s): Dr. Tanuja Sheorey Prof Puneet Tandon	MHRD, Govt. of India	Rs. 40 Lacs	Ongoing
Electrical Characterization of nano scale MOSFET's Scalability Issues and Possible Solutions	2010-13	PI: Dr. Ashutosh Srivastava	DST, Ministry of Science & Technology, Government of India	Rs. 15 Lacs	Ongoing



Books / Research Publications

Publications in Conferences, Journals and Books by the faculty during the last five years or since the conferment of Deemed University status

Books / Book Chapters

2010-11

1. **P. Khanna**, Geometric Modelling of Statically and Dynamically Symmetric Patterns, Theory, Generation, and Applications, Publishers VDM Publishing House Ltd., VDM Verlag Germany (2010).
2. **Asish K. Kundu** and B.Raveau, Structural, Magnetic and Electron Transport Properties of Ordered-Disordered Perovskite Cobaltites, pp. 213-250, Perovskites: Structure, Properties & Uses, Ed. M. Borowski, ISBN: 978-1-61668-525-6, Nova Publishers (USA) (2010).
3. **Asish K. Kundu**, Perovskite Manganates and Cobaltates: Phase separation, Spin Glass & Related Aspects, ISBN: 978-3-8383-6279-3, Lambert Academic Publishing (Germany) (2010).
4. **A. Ojha**, "Computer Graphics Study Guide", IGNOU, 2010
5. **Rajesh K. Pandey**, "Stable algorithm for computation of Hankel transform using Chebyshev wavelets" Wavelets: Classification, Theory, and Applications, NOVA Publishers USA (Accepted 2011).

Research Publications in National/International Journals by the Faculty of IITDM Jabalpur

2010-11

1. **Amit Ray** & Swathi M. Reddy (2011) 'Cultural Interaction through Aesthetics in Design' International Journal of Design & Culture (accepted in March 2011), New York
2. Khan, Md Rajik & **Tandon, Puneet**, "Computer-Aided Design and Analysis of a Custom-Engineered Form Milling Cutter", Computer Aided Design & Applications, 2010, Vol. 7, No. 2, pp. 213-219.
3. Gulati, Vishal, **Tandon, Puneet** & Kamaldeep, "Parameterized Modeling of Blow-Moulds for Designer PET Bottles", Computer Aided Design & Applications, 2010, Vol. 7, No. 4, pp. 479-487.
4. Soni, S., **Khanna, P.** & **Tandon, Puneet**, "Multi-Agent Feature based Shape Grammar Implementation for Concept Generation of Industrial Product Design", Computer Aided Design & Applications, 2010, Vol. 7, No. 6, pp. 797-807.
5. Sambhav, K., Dhande, S.G. & **Tandon, Puneet**, "CAD Based Mechanistic Modeling of Forces for Generic Drill Point Geometry", Computer Aided Design & Applications, 2010, Vol. 7, No. 6, pp. 809-819.
6. Khan, Mohammed Rajik and **Tandon, Puneet**, Mathematical modeling for design of a generic custom-engineered form mill, International Journal of Advanced Manufacturing Technology, 2011, Vol. 54, Issue 1, pp. 139-148. DOI: 10.1007/s00170-010-2936-4
7. Ghali, V S and **Mulaveesala R**, Frequency modulated thermal wave imaging techniques for non-destructive testing, Insight, vol. 52, No 9, pp. 475-80(2010).
8. **M. Amarnath**, C. Sujatha and S. Swarnamani, "Detection and Diagnosis of Gear Tooth Wear Through Metallurgical and Oil Analysis", Tribology online – a journal published by the Japanese Society of Tribologists. 2010, 5 (2), 102-110.



9. **M. Amarnath**, C. Sujatha and S. Swarnamani, "Experimental investigations on the effects of reduction in Gear tooth stiffness and lubrication film thickness in a spur geared system", *Tribology International* 2009, 42, 340-352
10. **Asish K. Kundu**, V.Pralong, B.Raveau, V.Caignaert, Magnetic & electric properties of ordered 112-type perovskite LnBaCoMnO_{5+x} , *Journal of Materials Science*, 46, 681 (2011).
11. M.M.Seikh, **Asish K. Kundu**, V.Caignaert, V.Pralong and B.Raveau, Magnetic and electronic properties of $\text{Eu}_{0.9}\text{Ca}_{0.1}\text{BaCo}_2\text{O}_{5.5+x}$ with the disparity of oxygen stoichiometry *Journal of Applied Physics*, xxx, xxxx (In press 2011).
12. **Dinesh Kumar V**, Abhinav Bhardwaj, Deepak Mishra and Kiyoshi Asakawa, Directional and Polarization Properties of a Plasmonic Cross Nanoantenna, *Journal of Nonlinear Optical Physics & Materials*, Oct 2010 (Accepted article in Press)
13. **Dinesh Kumar V**, Abhinav Bhardwaj, Deepak Mishra, Investigation of a Turnstile Nanoantenna, *IEE, Micro and Nano Letters*, 2011, Vol. 6, Iss. 2, pp. 94–97.
14. **A. Kumar**, G. K. Singh, R. S. Anand, "An Improved Closed Form Design Method for the Cosine Modulated Filter Banks using Windowing Technique", *Applied Soft Computing*, Vol. 11, No. 3, pp. 3209-3217, 2011.
15. **A. Kumar**, G. K. Singh, and R. S. Anand, "A Simple Design Method for the Cosine Modulated filter banks using weighted least square technique", *Journal of Franklin Institute*, Vol. 348, No. 1, pp. 606-621, 2011.
16. **A. Kumar**, G. K. Singh, and R. S. Anand, "A Closed Form Design Method for the Two Channel Quadrature Mirror Filter Banks", *Signal Image and Video Processing*, Vol. 5, No. 1, pp. 121-131, 2011.
17. **A. Kumar**, G. K. Singh and B. Kuldeep, "An Improved and Simplified Approach for Designing Cosine Modulated Filter Bank using Window Technique", *Journal of Mathematical Modelling and Algorithm*, DOI: 10.1007/s10852-011-9150-8 (In press).
18. **A. Kumar**, G. K. Singh, and R. S. Anand, "An Improved Method for the Design of Quadrature Mirror Filter Banks using Marquardt Optimization Technique", *Signal Image and Video Processing*, DOI: 10.1007/s11760-011-0209-9 (In press).
19. **A. Kumar**, and K. Ranjeet, "Wavelet based Electrocardiogram Compression at Different Quantization Levels", *Communications in Computer and Information Science*, Vol. 147, No. 3, pp. 392-398, 2011.
20. O. P. Singh, V. K. Singh, **R. K. Pandey**, New stable numerical inversion of Abel's integral equation using almost Bernstein operational matrix, *Journal of Quantitative Spectroscopy and Radiative Transfer*, 111 (2010) 245-252.
21. V. K. Singh, **R. K. Pandey**, S. Singh, A Stable Algorithm for Hankel transform using hybrid of Block pulse and Legendre polynomials, *Computer Physics Communications*, 181 (2010) 1-10.
22. **R. K. Pandey**, O. P. Singh, V. K. Singh., A Stable Algorithm for Numerical evaluation of Hankel transforms using Haar wavelet, *Numerical Algorithms*, 53(4) (2010) 451-466.
23. V. K. Singh, O. P. Singh, **R. K. Pandey**, Almost Bernstein Operational Matrix Method For Solving Systems of Volterra Integral Equations of Convolution Type, *Non Linear Sciences Letters A*, 1 (2) (2010) 201-206.



24. **R. K. Pandey**, V. K. Singh, O. P. Singh, A New Stable Algorithm for Hankel transform using Chebyshev Wavelets, *Communications in Computational Physics* 8(2) (2010) 351-373.
25. **R. K. Pandey**, O. P. Singh, V. K. Singh, D. Singh, Numerical evaluation of Hankel transforms using Haar wavelets, *International Journal of Computer Mathematics* 87 (11) (2010) 2568-2573.
26. O. P. Singh, V. K. Singh, **R. K. Pandey**, An efficient and stable algorithm for numerical evaluation of Hankel transforms, *Journal of Applied Mathematics & Informatics*, 28 (5-6) (2010) 1055-1071.
27. D. Singh, R. K. Mishra, V. K. Singh, **R. K. Pandey**, Bad Data pre-filter for State Estimation, *Electrical Power and Energy Systems*, 32 (2010) 1165-1174.
28. **R. K. Pandey** and B. N. Mandal, Numerical solution of a system of generalized Abel integral equations using Bernstein polynomials, *Journal of Advanced Research in Scientific Computing* 2 (2) (2010) 44-53.
29. K. Ranjeet, **A. Kumar**, **R. K. Pandey**, ECG signal Compression using different techniques, *Communications in Computer and Information Science*, 125 (2) (2011) 231-241.
30. Mayank Shakya and **K.K. SoundraPandian**, "Deterministic Test Pattern Generation for Built-In Self Testing of Combinational Circuits" *Journal of Electronic Science and Technology (JEST)*, 2011

CONFERENCE PUBLICATIONS

1. Sambhav, Kumar, **Tandon, Puneet** and Dhande, S.G., "Geometric Modeling and Analysis of Single Point Cutting Tools with Generic Profile", *Proceedings of the ASME 2011, International Manufacturing Science and Engineering Conference, MSEC 2011, June 13-17, 2011, Corvallis, Oregon, United States. [Accepted]*
2. Gupta, Vikas, Kasana, K.S. & **Tandon, Puneet**, "Reference Based Geometric Modeling for Heterogeneous Objects", *CAD'11, the 2011 International CAD Conference and Exhibition, Taipei, Taiwan, ROC, June 27-30, 2011. [Accepted]*
3. Goel, Vineet Kumar, Garg, T.K. & **Tandon Puneet**, "A New Paradigm to Develop Traditional Ornamental Designs", *CAD'11, the 2011 International CAD Conference and Exhibition, Taipei, Taiwan, ROC, June 27-30, 2011. [Accepted]*
4. Pal, Vijay & **Tandon, Puneet**, "A method to control the abrasive flow rate for Controlled Depth Milling of Ti-6Al-4V Alloy using Abrasive Water Jet Machining", *International Conference on Mechanical and Aerospace Engineering (ICMAE 2011), Bangkok, July 29-31, 2011. [Accepted]*
5. Rai Preeti and **Khanna Pritee**, 'Gender Classification Using Radon and Wavelet Transforms', *IEEE 5th International Conference on Industrial Information Systems (ICIIS 2010), July 29- Aug 01, 2010, pp. 448-451.*
6. Tamrakar Deepti and **Khanna Pritee**, "Analysis of Palmprint Verification using Wavelet filter and Competitive Code", *IEEE International Conference on Computational Intelligence and Communication Networks (CICN2010), Nov 26-28, 2010, pp. 20-25, 2010.*
7. Tyagi Surya Kant and **Khanna Pritee**, "Face Recognition Using Discrete Cosine Transform and Nearest Neighbor Discriminant Analysis", *IEEE International Conference on Security Science and Technology (ICSST 2011), Jan 21-23, 2011, pp. 145-149.*



8. Gupta, Vikas & Kasana K.S. **Tandon, Puneet**, "A Computer-Aided Design Modeling Approach for Heterogeneous Objects", CAD'10, the 2010 International CAD Conference and Exhibition, Dubai, UAE, June 21-25, 2010. (Presented by Puneet Tandon)
9. Khan, Md Rajik & **Tandon, Puneet**, "Computer-Aided Design and Analysis of a Custom-Engineered Form Milling Cutter", CAD'10, the 2010 International CAD Conference and Exhibition, Dubai, UAE, June 21-25, 2010. (Presented by Md. Rajik Khan)
10. Soni, Sitaram, Khanna, Pritee & **Tandon, Puneet**, "Multi-Agent Feature based Shape Grammar Implementation for Concept Generation of Industrial Product Design", CAD'10, the 2010 International CAD Conference and Exhibition, Dubai, UAE, June 21-25, 2010. (Presented by Pritee Khanna)
11. Sambhav, Kumar, Dhande, S.G. & **Tandon, Puneet**, "CAD Based Mechanistic Modeling of Forces for Generic Drill Point Geometry", CAD'10, the 2010 International CAD Conference and Exhibition, Dubai, UAE, June 21-25, 2010. (Presented by Puneet Tandon)
12. Soni, Nisheet & **Tandon, Puneet**, "Path planning of a point robot in unknown environment", ICIRET 2010, Proceedings of International Conference on Innovative Research in Engineering and Technology 2010, Coimbatore, Tamil Nadu, August 12-14, 2010, pp. 1-4. (Presented by Nisheet Soni)
13. Khan, Md Rajik & **Tandon, Puneet**, "Design of a Novel Multi-Radius Form Milling Cutter", 3rd International and 24th All India Machine Tool Design & Research Conference – AIMTDR, Andhra University, Visakhapatnam, India, December 13-15, 2010, Vol. 1, pp.465-470. (Presented by Md. Rajik Khan)
14. Sambhav, Kumar, **Tandon, Puneet** and Dhande, S.G., "Chisel Edge Indentation Model for Drills with Generic Point Profiles" Proc. 3rd International and 24th All India Machine Tool Design & Research Conference – AIMTDR, Andhra University, Visakhapatnam, India, December 13-15, 2010, Vol. 1, pp.459-464. (Presented by Kumar Sambhav)
15. Pal, Vijay & **Tandon, Puneet**, "Effect of Pressure Range on Material Response to Particle Impact on milled material during Controlled Depth Milling (CDM) In Abrasive Water Jet", 3rd International and 24th All India Machine Tool Design & Research Conference – AIMTDR, Andhra University, Visakhapatnam, India, December 13-15, 2010, pp. 449-453. (Presented by Puneet Tandon)
16. Vasal, Apurv, Mishra, Deepak and **Tandon, Puneet**, "Deployment of GSM and RFID Technologies for Public Vehicle Position Tracking System", The Second International Conference on Networks & Communications (NetCoM - 2010), Bangalore, India, January 2-4, 2011, pp. 191-201.
17. Pal, Vijay & **Tandon, Puneet**, "Effect of Abrasive Flow Rate in Milling with Abrasive Water Jet", 2nd International Conference on Mechanical, Industrial and Manufacturing Technologies (MIMT 2011), Sponsored by International Association of Computer Science and Information Technology (IACSIT), Singapore Institute of Electronics (SIE) and IEEE, Singapore, February 26-28, 2011, pp. V2-60-V2-63. (Presented by Vijay Pal)
18. **Kondekar PN**, "Analytical Modeling and Simulation of High Voltage Super junction Drift Layer for Power MOSFET" Vol 1, IEEE International Conference on Microelectronics ICM 2010 Dec 2010 Cairo Egypt
19. **Kondekar PN**, "Simulation Study of Conduction-State Charge Imbalance in High Voltage Super-junction Power MOSFET" International Conference on Advanced Semiconductor Devices and Microsystems, ASDAM 2010 Oct 2010 Smolenice Castel, Slovakia



20. **Dinesh Kumar***, **Vicky Kumar**, **Avinash Choudhary**, Investigation of a Broadband Plasmonic Nanoantenna in Optical Frequency Range, IEEE NANO 2011 Conference, Portland, USA, August 15-18, 2011 (Accepted)
21. Neeraj Rao, **Dinesh Kumar**, Gain and Bandwidth Enhancement of a Microstrip Antenna Using Partial Substrate Removal in Multiple-layer Dielectric Substrate, PIERS 2011, Suzhou China 12-16 September 2011 (Accepted)
22. Neeraj Rao, **Dinesh Kumar**, Performance Enhancement of a Microstrip Antenna by Suppression of surface waves using EBG Structures in Multiple layer Substrate, IEEE-APS Topical Conference on Antennas and Propagation in Wireless Communications, September 12-17, 2011 Torino, Italy (Accepted)
23. Neeraj Rao, **Dinesh Kumar**, Design of a broadband circular patch antenna using multiple-layer dielectric substrate, National conference on Design & Manufacturing Kanchipuram, 27-28 May 2011 (Accepted)
24. Neeraj Rao and **Dinesh Kumar**, Finite-Difference Time-Domain-based Gain Improvement of a Microstrip Patch Antenna using Electromagnetic Band-Gap Structures, IEEE Recent Advances in Intelligent Computational Systems Trivandrum, Sep 22-24, 2011 (Submitted)
25. **Biswajeet Mukherjee**, **Dinesh Kumar V.** Investigation of a Dielectric Resonator Antenna on an Electromagnetic Band Gap substrate, 13th International Symposium on Microwave and Optical Technology ISMOT-2011, Reno, USA. June 20-23 (Submitted)
26. K. Asakawa, **V.Dinesh Kumar** et. al., Evolution of nanophotonics from semiconductor photonic crystal device to metal/semiconductor plasmonic device, 5th International Conference on Advanced Optoelectronics and Lasers, Ukrain (CAOL'2010), September 10 - 14, 2010.
27. **V. Dinesh Kumar**, K. Asakawa, Directional and Polarization properties of a Plasmonic Cross Nanoantenna, International Conference on Nanophotonics, Optical Society of America, Tsukuba, Japan, May - June 2010
28. Gulati, Vishal & **Tandon, Puneet**, "A CAD Paradigm to Produce Blow Moulds for Decorated PET Bottles", International Conference on Futuristic Computer Applications, 2010, IISc Bangalore.
29. Rajlaxmi Chouhan, P. Kumar, R. Kumar, **Rajib Kumar Jha**, "Contrast enhancement of dark images using Dynamic Stochastic Resonance in Wavelet domain," Proceeding of IEEE conference of machine learning-ICMLC, Singapore, 26-28 Feb, 2011.
30. Rajlaxmi Chouhan, **Rajib Kumar Jha**, A. Chaturvedi, T. Yamasaki, K. Aizawa, "Watermark Extraction Based on DSR in SVD Domain," Accepted in IEEE ICIP-2011, to be held at Brussels, Belgium, 11-14 Sept.
31. **Rajib Kumar Jha**, P. K. Biswas, D. Mishra, "Improving Watermark Detection Performance using Suprathreshold Stochastic Resonance," Proceeding of Tencon-IEEE Region 10 Conference, Fukuoka, Japan, 21-24 Nov., 2010.
32. **Rajib Kumar Jha**, P. K. Biswas, B. N. Chatterji, "Image Segmentation using Supra threshold Stochastic Resonance," Proceeding of ICSIP, Singapore, 25-28 Sept., 2010.



ADMINISTRATION

Officers

Name of Employee	Designation
Prof. Aparajita Ojha	Director
Prof. Puneet Tandon	Dean, Planning & Development
Col (Retd.) P.S. Sandhu	Registrar
Dr. P. K. Padhy	Coordinator, Academic Affairs
Dr. M. K. Roy	Coordinator, Faculty Affairs
Dr. P. K. Jain	Coordinator, Students' Affairs
Mr. Raghunath Battacharya	Deputy Registrar (Administration)
Mr. Ram Phal Dwivedi	Deputy Registrar (Finance & Accounts)
Mr. Ram Shankar	Assistant Registrar
Mr. Prabodh Pandey	Assistant Registrar

Ministerial Staff

Mr. Ashok Kumar	Jr. Superintendent
Mr. Aloysius Beenu Michael	Senior Stenographer
Mr. Dev Krishna Jha	Dy. Account Assistant
Mr. Sandeep Awasthi	UDC
Mr. Anil Kumar	UDC
Mr. Shailesh Sharma	UDC
Mr. Praveen Kumar Armo	UDC
Mr. Kamlesh Singh Warkade	Care Taker
Mr. Pankaj Prajapati	LDC
Mr. Simanta Kar Gupta	LDC
Mr. Avashesh Kumar Pal	LDC
Mr. Prashant Agnihotri	LDC
Mr. Prakash B	LDC
Mr. Dilip Rangare	LDC
Mr. Rajesh Kumar	LDC
Mr. Adesh Kumar	LDC
Ms. Savita K Bisikar	LDC
Mohd. Izrael Khan	Driver

Technical Staff

Mr. Vijay Kumar Dubey*	Assistant Engineer (Civil)
Mr. R K Mishra	Junior Engineer (Civil)
Mr. Pradeep Kumar Nayak	Junior Engineer (Electrical)
Mr. Alok Kulkarni	Technical Assistant



Mr. Akhilesh Srivastava	Technical Assistant
Mr. Jitendra Gupta	Technical Assistant
Mr. Rajesh Kumar Singh	Technical Assistant
Mr. Anupam Shukla	Technical Assistant
Mr. Brajesh Kumar	Technical Assistant
Ms. Bharati Kewat	Technical Assistant
Ms. Sapana Wankhede	Library Assistant
Mr. Varun Dubey	Lab. Assistant
Mr. Mayur S Mangole	Lab. Assistant
Ms. Aaysha B Mansoori	Lab. Assistant
Mr. Ram Dularey Vishwakarma	Lab. Assistant

* On deputation from CPWD

LIBRARY

The Institute library with a seating capacity of approximately 50 plus students has been able to grow further during the year 2010-11 with additional facilities of automated issue/return, cataloging and provisioning of E-resources. Additional space is being created to increase the seating capacity. The available infrastructure of the library is as given below:

Books Collection

Sl. No.	Items	In Stock on 31 Mar 2010	Procured in 2010-11	Total
1.	Books (Text Reference)	7341	1484	8825
2.	Gratis Books	19	19	38
3.	Online Periodicals (international) + E-resources(i.e.=INDEST, Scopus, science direct)	23	23	46
4.	News Letter	0	1	1
	Bound Volume	19 (Magazine)	54 (Journals)	73
5	Projects	1	10	11
6	Non printed material (CDS & Floppy) received with books	585	267	852
Total Books Held		7988	1858	9823



E Resources

Sl. No.	Item	Description
1.	<u>e-Resources</u>	a) Sciencedirect.com (Option I) b) Springer Resources c) ASME Resources d) IEEE Resources e) ACM Resources f) American Institute of Physics g) SIAM h) AMS i) American Physical Society Journals j) AIP journals k) Operations Research l) scopus.com

News Papers & Periodicals

Sl. No.	Items	Quantity
1.	News Papers	11
2.	Magazines/Periodicals	19



STUDENT LIFE

Co-curricular and extra-curricular activities

PDPM IIITDM Jabalpur emphasizes on several extra-curricular activities in addition to its rigorous academic activities. The students participate in various technical, sports and cultural festivals organized by similar institutes like IITs, IIITs, etc. and have been able to secure commendable positions.

Students Gymkhana

The structure of Students Gymkhana of IIITDM Jabalpur and the governance model at the institute has two wings: (1) Executive Wing (2) Student's Senate. Executive wing comprising of :

- The President
- The Science & Technology Secretary
- The Games & Sports Secretary
- The Cultural Secretary

The Students' Senate has representatives from each Hall of Residence. The executives of Students' Gymkhana are also members of the Students' Senate. In all, there are 25-30 members of the Students' Senate. Executive Wing of Gymkhana forms its own sports, hobby and Science & Technology clubs.

The proposed Constitution of Students Gymkhana is discussed among the Faculty Members of the Institute and the students in an open and transparent manner. The proposed constitution was taken up for the discussion and adopted in the Academic Senate of the institute in 2008-09. Based on the terms and conditions, laid down in the proposed constitution, elections for the executive posts of the Students Gymkhana were held for the first time in 2007-08 and has become an annual affair in the month of November. The students elected for session 2010-11.

- | | |
|------------------------------|--------------------------------|
| 1. Mr. Divyansh Soni | President |
| 2. Mr. Chauhan Nitin Durgesh | Science & Technology Secretary |
| 3. Mr. Kartik Malik | Games & Sports Secretary |
| 4. Mr. Anuj Srivastava | Cultural Secretary |

Student Gymkhana organized three annual events during the year (1) 'Tarang', the cultural festival (2) 'Abhikalpan', the tech-festival and (3) 'Gusto', the sport festival.





Sports Activities- GUSTO

Gusto is the annual sports festival organized by the students of our Institute every year under the leadership of Sports Secretary, elected by Student Gymkhana. The elected sports secretary builds a team of Sports Coordinators who help him/her in managing various activities like organizing the events, selection of captain and the players etc. Sports Secretary and his/her team of Sports Coordinators are being advised by the Faculty-in-Charge of sports and Coordinator, Students' Affairs. Required administrative and financial supports are also being provided by the Institute.



Cultural Activities- TARANG

The students of IIITDM Jabalpur organized the 4th annual cultural festival TARANG from March 11-13, 2011. There were various competitions of quiz, debate, extempore, mono acting, solo dance, dance, music, dramatics, literary events, art & crafts, the rock band competition, etc. The event concluded with a gala musical night performed by Ms. Hard Kaur as the main artiste. More than 1000 students from various Institutes from all over India and colleges from Jabalpur participated in the events. It is important to mention that our students won trophies and prizes in almost all the events.



Technical Activities- ABHIKALPAN

Abhikalpan is the annual Technical festival being organized by the students of our Institute every year. This annual technical festival was held from September 10-12, 2010. During the festival, the students conducted workshops on Nastran / Patran software and on Linux & Python.





PDPM IIITDM - JAPAN COLLABORATION

ACADEMIC PROGRAMME

2010-11 has been a great year of achievements with reference to international collaboration on the academic front. PDPM IIITDMJ - Japan collaboration grew to a new height, both with reference to academic programmes as well as research collaboration. The Institute also strengthened its international relations by becoming a founder member of world-wide design services consortium.

IIITDM Jabalpur - Japan Academic Collaboration

Renowned experts from Japan visited the Institute namely Professor Takashi Nanya, from University of Tokyo, Professor Kenichi Miura, National Institute of Informatics, Tokyo and Professor Kenzo Nonami, Chiba University. Prof Nanya is currently research advisor to Canon Inc, Japan, Prof. Miura is also acting as director of the Center for Grid Research and Prof Nonami is vice president for Research and International Affairs at Chiba University. They delivered course lectures and extended support in our teaching programme.

The following is a list of experts from prestigious universities and industries of Japan who have visited the Institute during the period from August 2010 to April 2011 to impart technical education in the cutting edge technologies:

S.No.	Name	Course	Affiliation	Duration
1.	Dr. Ryuji Takanuki	CS 409 Compiler Design	Retired Director, Hitachi Ltd.	August 29 – September 4, 2010
2.	Prof. Hutsuhiko Kato	CS416 Advanced Computer Architecture	Akibacho Totsukaku, Yokohama, Japan	September 5 – October 25, 2010
3.	Prof. Hisa Ando	CS416 Advanced Computer Architecture	Worked with Fujitsu Ltd.	September 26 – October 2, 2010
4.	Prof. Yoshimi Ito	ES 104 Engineering Literacy & Keynote address in DEW 2010	Mentor (ME) India-Japan Collaboration Project	October 7 – 17, 2010
5.	Prof. Masao Ishihama	ES 104 Engineering Literacy & Keynote address in DEW 2010	Professor and Head of Automotive Technology Center Kanagawa Institute of Technology	October 7 – 17, 2010



6.	Prof. M. Ishijuka	ES 104 Engineering Literacy & Keynote address in DEW 2010	Toyama Prefecture University	October 7 – 17, 2010
7.	Mr. K. Kinokiri	ES 104 Engineering Literacy & Keynote address in DEW 2010	Past Senior Secretary of Japan Vacuum Industries Association	October 7 – 17, 2010
8.	Prof. Ibe	Semiconductor devices	Hitachi industries, Japan	October 12 – 14, 2010
9.	Dr. Fujita	Innovation in Product Design	Department of Electronic packaging and semi conductor devices and components, Toshiba Japan	October 12 – 14, 2010
10.	Prof. Ikuo Tanabe	Application of new materials to industrial products	Nagaoka Science and Technical University, Japan	February 7 – 12, 2011
11.	Prof. Kenichi Miura	Parallel Processing	National Institute of Informatics, Tokyo	February 8 -12, 2011
12.	Prof. Kenzo Nonami	In-process measurement and out-put signal processing: Application – Robotic and Mechatronics	VP, Chiba University	February 28 – March 4, 2011
13.	Prof. Ming Yang	Micro Metal Forming and Moulding	Tokyo Metropolitan University	February 28 – March 5, 2011



14.	Prof. Michiko Matsuda	Artificial Intelligence: Theory and lab	Kanagawa Institute of Technology, Japan	March 1 – 5, 2011
15.	Dr. Takanori Takano	Artificial Intelligence: Theory and lab	Kanagawa Institute of Technology, Japan	March 1 – 5, 2011
16.	Mr. Takahide Tokawa	Precision Gear Production Technology	Manager, Mitsubishi Heavy Industries	March 7 – 10, 2011
17.	Prof. Hisao Taoka	Smart Grid	Graduate School of Engineering, Electrical and Electronics Engineering, University of Fukui, Japan	March 14 – 18, 2011
18.	Prof. Masao Ishihama	Advanced Noise and Vibration Design of Automobile	Kanagawa Institute of Technology, Japan	March 29 – April 01, 2011
19.	Prof. Takashi Nanya	Dependable Computing	Mentor, India- Japan Collaboration, Associated with Canon Inc. Japan	March 29 – April 02, 2011



INTERNATIONAL COLLABORATIVE PROJECTS

1. "Development of a micro pump with NEMS sensing function for an automatic blood collecting and measurement system." It is a DST-JSPS joint collaboration project (2010-12). Professor Puneet Tandon, Dr. Tanuja Sheorey and Dr. Vijay Kumar Gupta are participating members from the Institute. Dr. Shinichi Warisawa, University of Tokyo and Dr. Kazuyoshi Tsuchiya, Tokai University, are the participating members from Japan.
2. "Application of nanoparticles in microbio-assay." AJSPS funded project. "Development of rapid and highly reliable diagnostic method for prevention of emerging and reemerging infectious disease". A jointly funded project by Tokyo Government and Tokyo metropolitan University (2010-15) under joint collaboration between Dr Mukesh Roy from the Institute and Prof. Ming Yang from Tokyo Metropolitan University as participating members.
3. "Evolution of nanophotonics from semiconductor photonic crystal device to metal plasmonic device." Dr. Dinesh Vishwakarma from the Institute and Prof. Kiyoshi Asakawa, University of Tsukuba, Japan, are the participating members.
4. "Nano-scale MOSFET's scalability issues and potential dielectrics." A DST-JSPS project project. Dr Ashutosh from the Institute and Prof. Hiroshi Iwai from Tokyo Institute of Technology, Japan are the participating members.



DESIGN WORKSHOP

DeW 2010

The Institute held a Design Workshop (DeW 2010) in collaboration with the Japanese Academic Institutions and Industries during October 11-15, 2010. Many national and international dignitaries attended the Workshop. The international dignitaries who delivered key note addresses during the workshop were:

- Professor Imre Horváth, Technische Universiteit Delft, the Netherlands
- Professor Emeritus M. Kiuchi, University of Tokyo, Japan
- Professor Emeritus Y. Ito, Tokyo Institute of Technology, Japan
- Professor Dr.-Ing. Ralph Bruder, Technische Universiteit Darmstadt, Germany
- Professor M. Ishizuka, Toyama Prefecture University, Japan
- Mr. K. Kinokiri, Past Senior Secretary of Japan Vacuum Industries Association
- Dr. Y. Fujita, Toshiba, Japan
- Professor M. Ishihama, KIAT, Japan
- Dr. Koichi Kuroda, Sumitomo Metal, Japan
- Professor M. Ishihama of Kanagawa Institute of Technology, Japan
- Dr. Roltán Zusák, Technische Universiteit Delft, the Netherlands
- Mr. Hitoshi Ushida, Torishima Pump Mfg. Co. Ltd., Singapore
- Mr. Kenji Omoya, Okuma, Japan



The dignitaries from India, who graced the occasion, were:

- Professor Sanjay G. Dhande, Director, IIT Kanpur, India
- Professor H. P. Dikshit, Director General, School of Good Governance and Policy Analysis, Bhopal
- Professor B. Gurumoorthy, IISc Bangalore, India
- Professor K.P. Karunakaran, IIT Bombay

It was decided to hold design workshop in every two years.





WORLD WIDE DESIGN CONSORTIUM (WWDSC)

A world wide design consortium has been established in partnership with the following universities across the globe:

- (a) Delft University of Technology, the Netherlands
- (b) PDPM Indian Institute of Information Tehnology, Design & Manufacturing Jabalpur
- (c) Purdue University, United States of America
- (d) Vaal University of Technology (VUT), South Africa
- (e) University of Medellin, Columbia

The main objective of the Consortium is to address the present challenges in the product design namely:

- (a) Well-being
- (b) Knowledge economy
- (c) Globalization
- (d) Social networking
- (e) Sustainability
- (f) Digital virtualization

This year WWDC has offered a video-conferencing based course on “Artefacts and Service Innovation with Ubiquitous Technologies”. The emphasis of the course was design of innovative products/services based on society need. The Institute has taken up the challenge and exploring applications of ubiquitous technologies in rural areas, specifically addressing primary education at rural areas.



World Wide Design Services Consortium Product and Service Innovation

A challenging course that can be followed as IDP!
International cooperation with students from

Colombia
India
the Netherlands
South Africa
USA

Goals of the course:

Do research in order to solve society problems
Generate knowledge for innovation and broker it
Find an interested company
Prototype your innovation ideas
Present them in a symposium/exhibition

Information:

Dr. ir. Niels CCM Moes, c.c.m.moes@tudelft.nl
Prof. Dr. Imre Horváth, i.horvath@tudelft.nl



Jabalpur



ANTYDOTEICA

Vaal University of Technology



JENESYS PROGRAMME

To strengthen the collaboration and to identify the areas of cooperation, faculty members of the Institute visit Japan. In this context the following five faculty members of the Institute visited Japan under the JENESYS programme 2010 from November 28- December 25, 2010:

SER	NAME	PLACE OF VISIT	COLLABORATION
1.	Dr. Rajib Kumar Jha	Department of Communication Engineering, Graduate School of Information Science and Technology, The University of Tokyo	With Dr. Kiyoharu Aizawa, Professor, Department of Communication Engineering, Graduate School of Information Science and Technology, The University of Tokyo, Japan.
2.	Dr. Rajesh Kumar Pandey	Department of Mathematical Informatics, Graduate School of Information Science and Technology, The University of Tokyo.	With Dr. Takayasu Matsuo, Professor, Department of Mathematical Informatics, Graduate School of Information Science and Technology, The University of Tokyo, Japan.
3.	Dr. Prabin Kumar Padhy	Amada Machine Tools Co. Ltd., Technology Research Institute, Japan	With Mr. Junichi Koyama, Amada Co. Ltd., Technology Research Institute, Japan.
4.	Dr. Prashant Kumar Jain	Amada Machine Tools Co. Ltd., Technology Research Institute, Japan	With Mr. Junichi Koyama, Amada Co. Ltd., Technology Research Institute, Japan
5.	Dr. Lokendra Kumar	Department of Computer Science, Graduate School of Information Science and Technology, The university of Tokya, Japan.	With Prof. Suda, Department of Computer Science, Graduate School of Information Science and Technology the University of Tokyo, Japan.

In addition to the faculty, 15 students visited Japan for academic / industrial exposure and 3 students undertook summer internships for short durations under JENESYS programme, fully supported by Japan Government. This exposure visit of students helped them understand the education and training system of Japan. The industry representatives also explained the students the process of getting summer internships in some of the leading industrial labs. Students also got an exposure to the opportunities of higher education in Japan. The following 15 students visited Japan under the JENESYS programme from May 16 to May 24, 2011 on short term basis:



Komal Dhawan	Gauri A. Dani
Rishab Shrivastava	Chandani Singh
Manu Rakesh	Deewakar Shukla
Vivek Tiwari	Sachin Kumar
Aritra Santra	Vigyanshu Mishra
Shridhar Choudhary	Bhasha Agrawal
Abhijit Singh	Abhinav Singh
Saurabh Tiwari	

The students who visited Japan for internships:

(i)	Abhinav Singh Suryavanshi Fourth Year B Tech. Computer Science Engineering	-	Internship in Cannon Inc JAPAN	Six months
(ii)	Jitendra Singh Chauhan Fourth Year Mechanical Engineering	-	Nakata Manufacturing Co. Ltd. JAPAN	One month
(iii)	Deepak Banthia M Tech. Computer Science & Engineering	-	GE Energy JAPAN	One month



MISCELLANEOUS

1. An MOU with Kanagawa Institute of Technology, Japan and Pandit Dwarka Prasad Mishra Indian Institute of Information Technology, Design & Manufacturing Jabalpur was signed for promoting academic friendship and cooperation between the two Institutions.
2. An MOU between PDPM Indian Institute of Information Technology, Design & Manufacturing Jabalpur and the University of Limerick, Ireland is underway for mutual cooperation and partnership in the area of Design.
3. Mr. Vineet Singh a student of 2006 batch had been offered MS in Computer Science from Nagoya Institute of Technology, Japan with full financial support.
4. Students have received job offers, based on their performance during internship at Japan.



Workshops/ Conferences/ Seminars

Design Workshop (DeW 2010)

An international workshop organized by the Institute during the period October 11-15, 2010 on “Leading Edge Theories and Practices in Design” jointly with Ministry of Foreign Affairs (MOFA) Japan. The workshop has recorded presence of experts and participant from many countries across the globe.



Synopsis TCAD tools for Device/Processes Simulation

A Workshop on "Synopsis TCAD tools for Device/Processes Simulation" was conducted on 25th and 26th March 2011. There were approximately 75 participants from different institutions and undergraduate and postgraduate students of ECE discipline of our Institute. This workshop on first day gave the complete overview of TCAD Sentaurus dealing with semiconductor devices and process for fabrication of CMOS-devices. On second day, hands on simulation exercise for various groups of participants and discussion was held. 2D and 3D Simulation tools for devices were explained with Demo example files.



The main aim of this workshop was to help our UG and PG students to avail the research facilities that we have procured to establish Nano Computational Lab, and also let other participants in the field to know about this development.





DEVELOPMENT PLAN

Infrastructure Development

Existing Buildings

1. The Institute shifted to its own campus being developed in 250 acres of land near Dumna Airport, Mehgawa Village Jabalpur. The following buildings/ services were completed (or are on the verge of completion) and were taken into use during the year 2010-11:-
 - (a) **Hall of Residence 1:** This is Single Seated Hostel building having capacity of accommodation for 408 students. Out of total 6 blocks and a facility block, 3 blocks and the service blocks have been completed and students have been shifted to these blocks.
 - (b) **Triple Seated Hall of Residence 3:** The building is a triple seated hostel building having total 10 blocks including one number facility block. The construction of the building is in advanced stage going to be completed by Aug 2011.
 - (c) **Electrical supply:** Initially, the Institute had electricity supplied through temporary electric connection of 11 KV. The work for 33 KV supply on 1500 KVA load was partly completed in the year 2009-10 to become functional from one feeder of MPSEB. The electricity demand of the Institute for next 10 years is expected to be met by this much of electricity supply.





- (d) **Diesel Generator for Uninterrupted power supply:** Two diesel generators one of 45 KVA and another of 250 KVA have been installed in the Institute premises to cater to the electricity demand during electric supply failure. One generator of 1010 KVA is under purchase to cater for the additional load due to new buildings coming in the Institute.
- (e) **Water Supply:** Presently, three borewells have been provided at the campus for water supply to the existing buildings by electrical pumps. Efforts are being made to get the water supply from nearby "Khandari water reservoir". In this connection permission has been granted by Nagar-Nigam Jabalpur to provide supply of drinking water to the Institute from Khandari.
- (f) **Pathways:** The existing buildings have been well connected through precast concrete block pathways. Construction of permanent road network and street light will start in the year 2010-11.
- (g) **Security System:** The security agency engaged for security of the campus has been providing security guards, round the clock in 3 shifts each of 8 hours duration.
- (h) **Sewage Plant:** The sewage treatment plant lying with the Institute has been commissioned on adhoc basis at a temporary location to treat the sewage for the time being. It will however be shifted to its proper location later on.

2. **Buildings /Structures Under Construction/Assigned to CPWD.** The Central Public Works Department (CPWD) has been engaged for all the major construction projects at the Institute premises. The following works have been proposed by the institute, for which the construction activity shall be started by the CPWD very soon:-

- (a) **Mess and Dinning Hall:** The construction of this building has been started by the CPWD. The building shall facilitate the students of Hall of Residence 1 and Triple Seated Hall of Residence. The PDC of the project was 26 May 2011. The work is going on with slow speed.
- (b) **Lecture Hall & Tutorial Complex:** The building shall be state of art building complex, centrally air conditional and fully automatic building management system. The CPWD has called the tender and Technical bids have already been opened.



- (c) **Narmada Residency II:** It is a residential building having 50 number flats for staff members of the Institute. The construction of the building shall be taken up by the CPWD.
- (d) **Narmada Residency III:** It is also a residential building having 60 number flats for the faculty members and other senior officers at the Institute. The work was kept in abeyance for time being. Now CPWD has been asked to go ahead with the tendering process.
- (e) **Security Barracks:** The building is proposed for providing shelters for the security guards. The construction of this building is going on. Probable date of completion (PDC) is July 2011.
- (f) **Road networks and External Sewage System (Ph-I) :-** The work of Road network and Sewage System Phase - I in academic area has been assigned to CPWD. The work of Sewage system (Ph-I) is also assigned to CPWD recently. The work on both are going to start very soon.
- (g) **Triple Seated Hall of Residence 4.** The work of another triple seater hostel building (Named as Hall of Residence-4) of 498 capacity has been assigned to the CPWD and work is likely to be awarded to the Construction agency.
- (h) **Visitors' Hostel:** This work has been assigned to the CPWD. The building shall provide accommodation for outstation guest/faculty as well as for other guests at the Institute. The work is yet to be started by CPWD.

Laboratory Equipment/ Infrastructure

- 3. The Institute has an excellent lab infrastructure with sophisticated equipment in the course labs as well advanced research labs of the Institute. Details of the equipment donated by Okuma Company, Japan are as follows.
 - (a) **OKUMA CNC LATHE**
Model: LCS250-R
With OSP-P20L-R Controller and Standard Accessories
X-axis Travel : 155 mm
Z-axis Travel : 320 mm
Speed Range : 75-3000 rpm
Feed Rate: Rapid Traverse X 20000 mm/min, Z-axis 25000 mm/min
Cutting Feed Rate: 0.001 – 1000 mm/min



(b) **OKUMA VERTICAL MILLING MACHINE**



Model: MB-46VAE

Travel

X: 560 mm

Y: 460 mm

Z: 460 mm

Spindle Speed: 8000 rpm

Feed Rate: Rapid Traverse X: 40 m/min, Z-axis 32 m/min

Cutting Feed Rate: 32 m/min

Other machines that were installed in the year 2009-10 are as follows.

(c) **SEM (Scanning Electron Microscopy) Make:- FEI, Model :- Quanta 200.** The Quanta™ series from FEI is the advanced, flexible solution for current and future diagnostics applications. Featuring three imaging modes – high-vacuum, low-vacuum and ESEM™ it accommodates the widest range of samples of any SEM system. It is engineered to provide maximum data – imaging and microanalysis – from all specimens, with or without preparation.

Specifications:-

Electron optics

- High-performance thermal emission- SEM column with dual-anode source emission geometry, fixed objective aperture and through-the-lens differential pumping
- Filament lifetime >100 hours

Resolution

● **High-vacuum:-**

-3.0nm at 30kV (SE)

-4.0nm at 30kV (BSE)

-10nm at 3kV (SE)



- **Low-vacuum**
 - 3.0nm at 30kV (SE)
 - 4.0nm at 30kV (BSE)
 - <12nm at 3kV (SE)
- **Extended vacuum mode (ESEM)**
 - 3.0nm at 30kV (SE)
- **Accelerating voltage:200V –30kV**
- **Probe current up to 2 μ A – continuously adjustable**

Detectors

- Everhardt -Thornley SED
- Low-vacuum SED (LFD)
- Gaseous SED (GSED)
- IR-CCD
- Solid-state BSED
- Gaseous BSED

Chamber vacuum

- High-vacuum:<6e-4 Pa
- Low-vacuum:10 to 130 Pa
- ESEM-vacuum:10 to 2600 Pa

Vacuum system

- 1x 240 l/s TMP,1x PVP
- Patented through-the-lens differential pumping
- Beam gas path length:10 or 2 mm

Chamber

- 284mm left to right
- 10mm analytical WD
- 8 ports
- EDX take-off angle:35 °

4-axis motorized stage

- Eucentric goniometer stage
- X,Y =50mm
- Z =50mm (25mm motorised)
- T =-15 °to +75 °(manual)
- R =360 °continuous
- Repeatability:2 μ m



System control

- 32-bit graphical user interface with Windows XP, keyboard, optical mouse
- Image display: 19-inch LCD, SVGA 1280 x 1024
- Single frame or 4-quadrant image display
- 4-quadrant live

Image processor

- Up to 4096 x 3536 pixels
- File type: TIFF (8-or 16-bit), BMP or JPEG

Standard utilities

- Digital video recording (.avi)
- SW temperature control
- Image histogram and measurement software

Atomic force Microscopy

AFM Mode Integra prima, Make NT-MDT

Specifications

SFV10NTF- Scanning AFM head, ST007NTF- STM head, ST005NTF- Universal SPM head SC201NTF- Exchangeble Scanner 1X1 mkm, SU045NTF- Heating stage (150C), AU007NTF- measuring insert for contact and semi contact AFM, EFM, KPM, SCM, SCC04NTF – Vacuum Exchangeable mount for SPM heads, SCB14aNTF- Universal base unit, BL222RNTF- PNL workstation in rack, BTC04NTF- Thermo controller, IN00-PCI interface board, CCD040- Video microscope, CCBC1- Color CCD Camera, WT001NTF- Toolkits for Ntegra, OB006- Objective10X, AC007NTF- cover, WTSTM1-toolkits for STM.

Other Equipment Installed

Apart from the equipment mentioned above, some of the other equipments whose procurement was initiated in the year 2008-09 were installed in the advanced research labs of the Institute. These include cluster computers, server for biometric labs, high end systems for digital signal processing, CNC machines, injection molding machine, rapid prototyping machine, Infra red camera.



OMAX WATER JET MACHINE



TORISON TESTING MACHINE



ANNUAL ACCOUNT: 2010-11

FORM OF FINANCIAL STATEMENTS

NAME OF THE ENTITY: Pt. DWARKA PRASAD MISHRA INDIAN INSTITUTE OF INFORMATION TECHNOLOGY, DESIGN & MANUFACTURING, JABALPUR

BALANCE SHEET AS AT 31ST MARCH, 2011

SL. NO.	PARTICULARS	SCHEDULES	(Amount - Rs.)	
			CURRENT YEAR (As on 31/03/2011)	PREVIOUS YEAR (As on 31/03/2010)
1	CORPUS/CAPITAL FUND AND LIABILITIES			
1.A	CORPUS/CAPITAL FUND	1	1,021,599,904	673,394,642
1.B	RESERVE AND SURPLUS	2	-	-
1.C	EARMARKED/ENDOWMENT FUNDS	3	3,412,987	512,055
1.D	SECURED LOANS AND BORROWINGS	4	-	-
1.E	UNSECURED LOANS AND BORROWINGS	5	-	-
1.F	DEFERRED CREDIT LIABILITIES	6	-	-
1.G	CURRENT LIABILITIES AND PROVISIONS	7	36,933,967	38,870,787
	TOTAL		1,061,946,858	712,777,484
2	ASSETS			
2.A	FIXED ASSETS	8	640,287,588	482,282,642
2.B	INVESTMENTS - FROM EARMARKED/ ENDOWMENT FUNDS	9	-	-
2.C	INVESTMENTS - OTHERS	10	1,710,603	9,947,074
2.D	CURRENT ASSETS, LOANS, ADVANCES ETC.	11	419,948,667	220,547,768
2.E	MISCELLANEOUS EXPENDITURE (TO THE EXTENT NOT WRITTEN OFF)		-	-
	TOTAL		1,061,946,858	712,777,484
	SIGNIFICANT ACCOUNTING POLICIES	24		
	CONTINGENT LIABILITIES AND NOTES ON ACCOUNTS	25		


(Ram Phal Dwivedi)
Dy. Registrar (Fin. & Accounts)


Col. (Retd.) P.S. Sandhu
Registrar


A.Ojha
6-5-2011
(Aparajita Ojha)
Director



FORM OF FINANCIAL STATEMENTS

NAME OF THE ENTITY: Pt. DWARKA PRASAD MISHRA INDIAN INSTITUTE OF INFORMATION TECHNOLOGY, DESIGN & MANUFACTURING, JABALPUR

**INCOME & EXPENDITURE ACCOUNT FOR THE PERIOD/YEAR ENDED
31ST MARCH, 2011**

SL. NO.	PARTICULARS	SCHEDULES	(Amount - Rs.)	
			CURRENT YEAR (As on 31/03/2011)	PREVIOUS YEAR (As on 31/03/2010)
1)	INCOME			
A)	INCOME FROM SALES & SERVICES	12	0	0
B)	GRANTS/SUBSIDIES (UTILISED PART) (OTHER GRANTS)	13	0	0
C)	FEES/SUBSCRIPTIONS	14	16,351,378	12,056,023
D)	INCOME FROM INVESTMENT (Excluding Income from Earmarked/ Endowment Funds transferred to Funds)	15	0	0
E)	INCOME FROM ROYALTY/PUBLICATIONS, ETC.	16	0	0
F)	INTEREST EARNED	17	4,232,313	2,915,890
G)	OTHER INCOME	18	878,927	691,234
H)	INCREASE/(DECREASE) IN STOCK OF FINISHED GOODS & WORK-IN-PROGRESS	19	0	0
	TOTAL (A)		21,462,618	15,663,147
2)	EXPENDITURE			
A)	ESTABLISHMENT EXPENSES	20	48,917,771	36,446,155
B)	OTHER ADMINISTRATIVE EXPENSES, ETC.	21	53,671,509	46,133,028
C)	EXPENDITURE ON GRANTS, SUBSIDIES, ETC.	22	0	0
D)	INTEREST PAID	23	0	0
E)	DEPRECIATION FOR THE YEAR	8	27,554,922	32,724,065
	TOTAL (B)		130,144,202	115,303,248
	BALANCE BEING SURPLUS/(DEFICIT) FOR THE YEAR		(108,681,584)	(99,640,101)
	LESS : PRIOR PERIOD ADJUSTMENTS		0	4,811,187
	BALANCE BEING SURPLUS/(DEFICIT) CARRIED TO CORPUS/CAPITAL FUND		(108,681,584)	(104,451,288)

Ram Phal Dwivedi

(Ram Phal Dwivedi)
Dy. Registrar (Fin. & Accounts)

P.S. Sandhu

Col. (Retd.) P.S. Sandhu
Registrar

Aparajita Ojha

(Aparajita Ojha)
Director



RECEIPT & PAYMENT ACCOUNT FOR THE FINANCIAL YEAR ENDING 31ST MARCH, 2011

S. NO.	RECEIPTS	(Amount - Rs.) CURRENT YEAR (As on 31/03/2011)	(Amount - Rs.) PREVIOUS YEAR (As on 31/03/2010)	S. NO.	PAYMENTS	(Amount - Rs.) CURRENT YEAR (As on 31/03/2011)	(Amount - Rs.) PREVIOUS YEAR (As on 31/03/2010)
VI	OTHER RECEIPTS			VIII	STATUTORY LIABILITIES DEDUCTED AT SOURCE		
a)	Security Deposit From Student	0	5,000	a)	Association Fee (Other Institution)	240	60
b)	From Contractors	6,092,450	6,602,529	b)	GIS (Other Institutes)	360	571
c)	Late Registration Fine	0	31,600	c)	GPF (Other Institutes)	163,000	32,000
d)	External Scholarship	128,700	73,105	d)	GSLIS	168,009	122,495
e)	Employee Welfare Fund	28,400	7,097	e)	Professional Tax Paid	173,736	2,930,320
f)	Salary Payable (Contractual Emp.)	7,097	45,170	f)	WCT Paid	119,270	2,254,193
g)	Salary Payable (Regular Emp.)	119,180	283,600	g)	1% Labour Welfare Cess	1,304,853	7,319,372
h)	Honorarium Payable	283,600	0	h)	TDS Paid	6,326,675	2,478,130
i)	Work Shop	0	8,474	i)	New Pension Contribution Paid Institutes Share	0	2,454,506
j)	Prior Period Income	0	23,654	j)	New Pension Contribution Paid Employee Share	5,972,121	14,228,264
k)	LC amendment charges recovered Creditors (Cheque Cancelled)	0	28,580	IX	LOANS & ADVANCES		
		6,704,597		a)	Advance for Expenses To Staff	9,508,104	5,771,810
VII	STATUTORY LIABILITIES DEDUCTED AT SOURCE			b)	To Student	137,887	6,000
a)	Association Fee (Other Institution)	240	60		From Staff	0	49,070
b)	GIS (Other Institutes)	6,960	90	c)	From Contractors	0	7,117
c)	GPF (Other Institutes)	163,000	27,000		Other Advances	182,000,000	162,000,000
d)	GSLIS	168,307	100,568		To CPWD Bhopal	0	188,500
e)	Professional Tax Paid	174,732	2,734,806	d)	To P.H.E. Mechanical Division Jabalpur	62,486,226	81,914,852
f)	WCT Paid	2,564,889	1,367,259	e)	Secured Advances CWIP	2,950,234	27,250,000
g)	1% Labour Welfare Cess	1,282,445	2,454,506		Other Advances		
h)	New Pension Cont.	5,980,965	7,400,445	X)	CLOSING BALANCES		
i)	TDS Recovered	6,022,990	0		Bank Balances		
VIII	AMOUNT BORROWED	0	0		i) Canara Bank Grant Account, Jabalpur	502,808	686,839
IX	OTHER RECEIPTS FEE ACCOUNT				ii) SBI Grant Account, GEC Campus, Jabalpur	1,871,143	9,313,803
a)	Student Caution Money	2,018,000	724,000		iii) SBI Student Fee A/c, Jabalpur	1,212,048	6,311,030
b)	Student Mess Advance	14,000	543,000		iv) SBI Project Account	3,477,810	531,718
c)	Hall Management A/c	2,823,500	2,193,500		v) Allahabad Bank (Student Fee A/c)	20,347,074	16,578,318
d)	Student Benefit A/c	1,284,950	946,400		vi) Allahabad Bank Current A/c, Jabalpur	31,026,259	58,437,142
e)	MCM Scholarship (Recd. From Student)	0	0				
f)	Advance Fees Received	4,035,292	2,851,317				
g)	Excess Deposit Fee A/c	3,344,539	2,329,740				
h)	Other Miscellaneous Receipt (External)	60,000	2,920				
i)	CCB Counseling Fee	0	0				
j)	Liability for Student Benefit Account	0	26,433				
k)	Liability for Student TA	0	126,791				
l)	Recovery of Admin. Exps. from Staff (Tel.)	0	0				
m)	Student Support Services	0	0				
n)	Fees Cheque Return	0	0				
o)	Mess Dues	0	0				
p)	Recovery Staff (Army Welfare Flag Day)	13,580,281	0				

(Handwritten signature)



RECEIPT & PAYMENT ACCOUNT FOR THE FINANCIAL YEAR ENDING 31ST MARCH, 2011

S. NO.	RECEIPTS	(Amount - Rs.)		S. NO.	PAYMENTS	(Amount - Rs.)	
		CURRENT YEAR (As on 31/03/2011)	PREVIOUS YEAR (As on 31/03/2010)			CURRENT YEAR (As on 31/03/2011)	PREVIOUS YEAR (As on 31/03/2010)
IX	LOANS & ADVANCES						
a)	Secured Advances CWIP	70,660,120	77,696,594				
b)	Adhoc Payment	0	32,700,000				
c)	Mobilization Advances CWIP	0	6,727,280				
d)	Advance for Expenses	8,431,703	5,161,484				
	From Staff	192,457	9,054				
	From Student	3,480,447	82,764,727				
	Other Advance						
	TOTAL	896,969,833	686,219,250		TOTAL	896,969,833	686,219,250

(Ram Phal Dwivedi)
(Ram Phal Dwivedi)
Dy. Registrar (Fin. & Accounts)

(P.S. Sandhu)
Col. (Retd.) P.S. Sandhu
Registrar

(Aparajita Ojha)
A.Ojha
6.5.2011
Director



**OFFICE OF THE PRINCIPAL ACCOUNTANT GENERAL
(CIVIL & COMMERCIAL AUDIT)
MADHYA PRADESH, GWALIOR**

No. QAD-IL/SAR/PDPM-III/TDM/2010-11 /D-181

Dated:- 30.11.11

To,

**The Director,
Pt. Dwarka Prasad Mishra,
Indian Institute of Information
Technology, Design & Manufacturing, Dumna Road, PO- Khamaria,
Jabalpur-482005**

**Subject: - Final Audit Report on the accounts of Pt. DPM-III, DM, Jabalpur for the
year 2010-11**

Sir,

Please find enclosed herewith a copy of separate Audit Report on the accounts of Pt. D.P.Mishra-III, DM, Jabalpur for the year 2010-11. It may please be noted that the Management Letter is not to be placed before the Parliament.

The date of placement of the above Report before both Houses of Parliament may please be intimated.

**Encl:- 1. Separate Audit Report
2. Management Letter**

Yours faithfully,


Dy. Accountant General/IC-I





**Separate Audit Report of the Comptroller & Auditor General of India on the accounts of
Pt. D.P. Mishra-IIT. DM, Jabalpur for the year ended 31 March 2011**

We have audited the attached Balance Sheet of Pandit Dwarka Prasad Mishra, Indian Institute of Information Technology, Design and Manufacturing (PDPM-IIT, DM), Jabalpur as at 31 March 2011 and the Income & Expenditure Account/Receipt & Payment Account for the year ended on that date under Section 20 (1) of the Comptroller & 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 Institute. 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 & 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 disclosure 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/Receipts & Payment Account dealt with by this report have been drawn up in the format approved by the Ministry of Finance.
- (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

1. Liabilities

1.1 Liabilities for retirement benefits

A provision for retirement benefits like gratuity and leave encashment is required to be made every year on the basis of its valuation by an actuary. The balance sheet revealed that no provision regarding aforesaid retirement benefits was made by the Institute during 2010-11.

1.2 Understatement of Earmarked funds and Liabilities due to transfer of interest from investment of earmarked fund to Income and Expenditure Account.

As per disclosure in the significant accounting policies annexed to the Balance Sheet, income on earmarked investment is required to be added to respective earmarked funds. Interest earned during the year Rs. 51,593/- was not found to have been added to the respective earmarked fund. This has resulted in understatement of earmarked funds and liabilities to that extent.

1.3 Non provision of Audit fees – Rs. 65,400/-

No provision for audit fees was made for the year 2010-11. Audit fees amounting to Rs. 65,400/- pertaining to 2010-11 was paid during the next financial year resulting in understatement of liabilities to that extent.

2. Assets

2.1 Understatement of Assets by Rs. 4.43 lakh

The work of construction of shed for extension of Temporary class room was completed on 24.01.11 and an expenditure of Rs. 12,13,604/- was incurred on it. Out of the total expenditure incurred, Rs. 7,70,739/- only has been shown in the schedule-8 Fixed assets and balance amount of Rs. 4,42,865/- (12,13,604 - 7,70,739) has not been shown under Fixed Assets though the building was completed and found to be utilized. This resulted in understatement of Assets by Rs. 4.43 lakh.



2.2 Understatement of fixed Assets by Rs. 20.00 crore.

Fixed assets in course of construction should be shown against 'Capital -Work- in Progress' head till they are ready for their intended use. Despite the fact that the works had been completed and put to use, the following works have been depicted under Capital Work in Progress (CWIP) in schedule 8 (Fixed Assets) resulting in understatement of Fixed Assets and overstatement of CWIP.

Sl	Particulars of Assets	Date of Completion as per completion certificate	Amount (Rs.)
1	Hall of Residence (d)	30-08-10	12,29,64,265
2	Core Lab Complex ©	22-05-09	7,13,47,438
3	HT Line (a)	15-02-10	1,12,64,426
		Total	20,55,76,129
		(-) Depreciation on above assets	(-)56,51,113
		Total	19,99,25,016

2.3 Overstatement of fixed assets and understatement of expenditure by Rs.56.51 lakh

Depreciation is required to be charged from the date of use of assets. The date of completion of assets is to be treated as the date of assets put to use and the depreciation is required to be charged on completed item of work from the date of its use.

The details of completed items of works and from the date of its use are cited below: -

S. No.	Name of Assets	Date of completion	Value of Assets	Depreciation rate & period	Value of Depreciation
1	Hall of Residence (d)	30-08-10	12,29,64,625	2% (10-11)	24,59,292
2	Core Lab complex ©	22-05-09	7,13,47,438	2% (09-10) 2% (10-11)	14,26,948 14,26,948
3	HT Line (g)	15-02-10	1,12,64,426	1% (09-10) 2% (10-11)	1,12,644 2,25,288
			Total		56,51,120

But, neither the value of assets has been capitalized nor depreciation has been charged. This has resulted in overstatement of assets and understatement of expenditure by Rs.56.51 lakh.



B. General

1. Non-disclosure of financial impact in connection with change of rate of depreciation.

Change in depreciation method should be treated as change in accounting policy and therefore as per AS-5, its effect should be quantified and disclosed. It was observed that during the previous year the rate of depreciation had been charged on fixed assets at the flat rate of 12.76 % and 12.77% but during the current year, the rate of depreciation has been charged at different rates as shown in the significant accounting policy but the financial impact of the change in consistent policy was not found to have been disclosed.

Effect of Audit Comments on Accounts

The net impact of the comments given in the preceding paras is that the Assets were overstated by Rs. 52.08 lakh; liabilities were understated by Rs. 1.17 lakh and expenditure was understated by Rs. 56.51 lakh.

C Grant in aid

During the year, the Institute received grant-in-aid amounting to Rs. 45.00 crore. (Rs. 15.00 crore was received in March-2011). The Institute had an unspent amount of grant-in-aid of Rs. 1.13 crore of previous year. Thus out of the total available grant-in-aid of Rs.46.13 crore, the Institute could utilize a sum of Rs. 45.69 crore leaving a balance of Rs. 0.44 crore as unutilised grant-in-aid as on 31.03.2011.

D Management Letter

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

(v) Subject to our observations in the preceding paragraphs, we report that the Balance Sheet and Income & Expenditure Account/Receipt & Payment 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 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 IIT, DM, Jabalpur as at 31 March 2011; 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: Gwalior

Dated: 29.11.2011


Principal Accountant General (C&CA)
M.P., Gwalior



Annexure

1. Adequacy of Internal Control System.

The Institute is yet to frame its own rules & byelaws as required under its memorandum of Association. No rules have been framed/adopted for maintenance of files, procedure for Departmental promotion committee and procedure for assets maintenance. This led to inadequate internal control system.

2. Adequacy of Internal Audit System.

The system of pre audit of all transactions is being followed in the Institute. All files are routed through the Internal Auditor. However, the Institute has not prepared its Internal Audit Manual, therefore the methodology and effectiveness of the internal Audit wing could not be ascertained during Audit. Non-preparation of the Internal Audit Manual led to inadequate Internal Audit System.

3. System of Physical Verification of Assets.

As per GFR rules 190(2), Assets Register is required to be maintained in form 40 of GFR. Register of fixed Assets Register has not been maintained in form 40. Physical verification of assets had not been conducted during the year.

4. System of Physical Verification of Inventories.

Physical verification of inventories has not been conducted during the year.

5. Regularity in payment of statutory dues.

No irregularity has been noticed.


Sr. Audit Officer/SAR