Agenda Notes

2012: Second Meeting

of the

Board of Governors

At

Conference Room, Vigyan Bhawan Annexe,
2nd Floor , New Delhi

On

February 24, 2012 at 2.00 PM

PDPM

Indian Institute of Information Technology, Design and Manufacturing Jabalpur

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

BOG /2012/2nd MEETING OF THE BOARD OF GOVERNORS
TO BE HELD ON February 24, 2012,
VENUE: CONFERENCE ROOM, 2ND FLOOR, VIGYAN BHAWAN ANNEXE, NEW DELHI

AGENDA

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BOG/2012:02:01   **Opening remarks by the Chairman**

Will be presented in the meeting itself.

BOG/2012:02:02   **Confirmation of Minutes of the BOG/2012/1st meeting held on January 9, 2012.**

The Minutes of BOG/2012/1st meeting of the BOG was circulated to the members after the approval of the Chairman.   Copy of the Minutes is attached as **BOG/2012/2nd/Annexure I**.

The minutes are placed before the Board for confirmation.

ANNEXURE- I

MINUTES OF THE BOG/2012/1ST MEETING HELD ON JANUARY 9, 2012

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

Minutes of BOG/2012/1st Meeting of the Board of Governors held on January 9, 2012 at 11:30 a.m. in the Conference Room, Vigyan Bhawan Annexe, 2nd Floor, New Delhi.

Members Present:

1.	Prof. S. V. Raghavan Scientific Secretary	Chairman
2.	Prof. U. B. Desai Director, IIT Hyderabad	Member
3.	Prof. Ashok Jhunjhunwala IIT Madras	Member
4.	Shri Amit Khare, IAS JS, ICC	Member
5.	Prof. Pradeep Mathur Director, IIT Indore (Attended Through Video Conferencing)	Member
6.	Prof. Aparajita Ojha, Director, PDPM-IIITDM Jabalpur	Member
7.	Shri R. D. Sahay Dept. of Secondary & Higher education, MHRD, GOI	Member
8.	Prof. G.K. Sharma IIT Gandhi Nagar	Member
9.	Prof. R.K. Shyamasundar TIFR, Mumbai	Member
10.	Prof. Puneet Tandon PDPM IIITDM Jabalpur	Member
11.	Col. (Retd) P.S. Sandhu Registrar, PDPM-IIITDM Jabalpur	Secretary

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Following member expressed their inability to attend the meeting due to their prior commitment and were granted leave of absence by the Chairman:

Shri N. Ravi Shankar
Joint Secretary,
Dept. of IT
Ministry of Communication &
Information Technology

Shri Hari Ranjan Rao
Secretary, CM and Dept. of IT
Govt. of M.P.

The Director welcomed Prof. S. V. Raghavan, Chairman, BOG on behalf of the Board and also took this opportunity to thank Shri A. K. Singh (Retd.), IAS, the former Chairman of the BOG for his most valuable contribution and guidance to the Institute during the initial years of its development.

BOG/2012 :01.01	Opening Remarks by the Chairman, Board of Governors

The Chairman, Prof. S. V. Raghavan welcomed the members of the Board who were present in the meeting and Prof. Pradeep Mathur who was attending the meeting through Video Conferencing. He informed the members about the first meeting of IIIT chairmen and directors of the Institute with the Hon'ble HRM who desired that all infrastructure development in the Institute should be completed by March 2013.

BOG/2012 :01.02	Overview and Action Taken Report by the Director

The action taken report was presented by the Director. During the report presentation, some of the items were further discussed and decisions were taken on those points as mentioned below.

BOG/2011:02.04	Consideration of Candidature of three M.Tech.(ECE) Students
	Resolution/ Decisions taken in the BOG/2011/2nd meeting The matter was discussed in detail. Members deliberated on the eligibility conditions for admission to M. Tech. programme. The Director informed the members that for Institute assistantship a candidate should have qualified marks as given in the GATE score card. It was also informed to the members that the students were selected through an admission test and interview conducted by the Institute. In view of the lack of information required to resolve the issue, the BOG ruled that the matter be further inquired and a fresh report be prepared to settle the issue. It was decided to discuss the matter in the next Board meeting. Meanwhile the Board approved the proposal that the programme of the students be continued until a decision is taken on the matter in the next Board

	meeting.
	Action Taken: Inquiry report submitted to the Board
	Decision: The Board deliberated on the Report and decided that the students will be required to deposit the amount of teaching assistantship given to them for the period of three months. Regarding their admission, the Director may decide the category conversion of the students from Institute Assisted (IA) to self financed category on the recommendation of the Post Graduate Committee of the Senate.
BOG/2011:02.09	**To consider the recommendation of the committee constituted to look into the request of Dr. Rajib Kumar Jha to change to salary on scale from the consolidated salary during the period of July 14-07-2008 to 13-07-2009.**
	Resolution/ Decisions taken in the BOG/2011/2nd meeting The Board deliberated on the recommendations of the committee and advised the Institute not to implement the recommendations. **Action Taken:** Individual informed of the decision. A Board member later suggested to count the services rendered on consolidated salary as experience for further assessment
	Decision: The suggestions given by one of the members on the minutes of BOG/ 2011/1st meeting were placed before the members. The Board deliberated on the matter and it was decided that the decision taken earlier shall be maintained.
BOG/2011:02.12	**To consider the proposal for fixing the minimum qualifications and experience requirement for appointment of faculty.**
	Resolution/ Decisions taken in the BOG/2011/2nd meeting The Board of Governors approved the proposal with the modification that non PhDs should not be considered for faculty positions and minimum qualification and experience requirement should be as per MHRD/guidelines and as amended from time to time by MHRD/GOI. *Action Taken: The matter was to be discussed in the next meeting of BOG* during confirmation of the minutes, due to suggestions given by a member of the Board.

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	Decision: The observations made by one of the members on the minutes of BOG/ 2011/1st meeting were placed before the members. The matter was discussed in the BOG and it was decided that the approval granted in the earlier meeting shall continue.
BOG/2011:02.13	**To consider the proposal for fixing the terms and conditions for offering the visiting professor/distinguished professor/adjunct professor and adjunct faculty position at the institute.**
	Resolution/ Decisions taken in the BOG/2011/2nd meeting The said proposal was discussed in the meeting, and after deliberations the Board accorded its approval on the proposal and advised that the honorarium of adjunct professor/faculty should be fixed based on the services rendered and designation of the faculty. The Board advised the Director to prepare a proposal and circulate the same for a resolution. **Action Taken:** Proposal was enclosed as appendix to the action taken report.
	Discussion: The proposal presented by the Director was discussed. The Board approved the proposal with the modification that in place of experience based stringent categories for deciding the honorarium, three different categories be defined depending on expertise and experience of the person whom the Institute would offer adjunct faculty position. The financial terms of the offer of adjunct faculty position to an individual be decided by the Director. In case of visiting professors, it was decided to follow the payment norms and procedures practiced in new IITs. Director was authorized to decide the honorarium and the same would be reported in the next BOG meeting for ratification.
BOG/2011:02.17(d)	**Minimum qualification and experience requirement in case of TA of the Institute.**
	Resolution/ Decisions taken in the BOG/2011/2nd meeting The recommendations of the Committee constituted to recommend minimum qualification and experience requirement for non-teaching staff in the Institute are approved by the Board of Governors. These recommendations were made on the basis of the suggestions given by the Director (T), MHRD. **Action Taken:** The necessary approval was given by the Board. However, one member had raised some query and matter was placed before the Board of Governors for perusal.

	Decision: The observations made by one of the members on the minutes of BOG/ 2011/1st meeting were placed before the members. The matter was discussed in the BOG and it was decided that the minimum educational qualification requirement for the post of Technical Assistants be kept as Diploma in the relevant discipline /field for future appointments.

BOG/2012:01:03	Confirmation of Minutes of BOG/2011/2nd meeting held on Jun 30, 2011.

As the points raised by the members on the minutes were clarified or accepted by all the members, the minutes were confirmed with the following modifications.

Page 3, under Infrastructure Development- a. Construction item on 6 -

Read - Detailed estimates submitted by the architects **for the work of Basket Ball Court Complex** have been analyzed by the CPWD and now the work is ready for floating the tender notice.

In place of - Detailed estimates submitted by the architects have been analyzed by the CPWD and now the work is ready for floating the tender notice.

Page 6 Line No. 2 from bottom - page 7 line no. 1

Read – Revised budget estimates for the FY 2010-11 and FY 2011-12 as approved by the BOG **are placed at BOG/2011/1/Annexure 1.**

In place of - Revised budget estimates for the FY 2010-11 and FY 2011-12 as approved by the BOG.

Page 7 Item BOG/2011:01:07 last line

Read – and the matter is carried forward to the next Board Meeting.

In place of - and the matter is carry forward this Board Meeting.

Page 13 Agenda BOG/2011:02:08

Read – The Board approved the Conduct rules of the Institute with immediate effect with the following correction - To replace (1) "Institute of Technology Act 1961" by "Memorandum of Association of the Institute" (2) to replace "Institute Statues" by "Memorandum of Association of the Institute" in Para 19(line No. 1 and 3) and (3) to replace Visitor by Secretary, MHRD in Para 17(a) line No. 15.

In place of - The Board approved the Conduct rules of the Institute with immediate effect with following correction - To replace "Institute of Technology Act 1961" by "Memorandum of

Association of the Institute" and also to replace "Institute Statues" by "Memorandum of Association of the Institute" in Para 19(line No. 1 and 3).

BOG/2012:01:04	Vision Document of the Institute

It was decided to have an exclusive meeting of the Board to deliberate on the Vision Document in the month of February, 2012 in New Delhi.

BOG/2012:01:05	To consider the recommendations of the FC/2012/1st Finance Committee through its meeting held on 9th Jan 2012.

The following decisions were taken on the recommendations of the FC/2012/1st meeting of the Finance Committee held on January 9, 2012.

FC/2012:01:04: To consider the recommendations of the Building & Works Committee meeting held on January 7, 2012.

Board accorded its administrative approval and expenditure sanction for the following projects recommended by the Finance Committee.

(1) B&WC/2012:01:03: Construction of Hall of Residence 7 (PG Hostel (Phase-2) - capacity 404 single seated) for an amount of Rs. 2369 lakhs.

(2) B&WC/2012:01:04: Construction of Administrative Block for an amount of Rs. 1454.14 lakhs.

(3) B&WC/2012:01:05: Construction of Student Activity Centre-I for an amount of Rs. 1816.3 lakhs.

(4) B&WC/2012:01:08: Construction of Hall of Residence 8 (Girls Hostel-1 – Capacity 296) for an amount of Rs. 1512.06 lakhs.

(5) B&WC/2012:01:09: Construction of Rewa Residency-2A (72 no of 2bed room apartments for staff) for an amount of Rs. 1440.00 lakhs.

(6) B&WC/2012:01:10: Construction of Primary Health Centre for an amount of Rs. 495.2 lakhs.

FC/2012:01:05: To consider the proposal for Revised Budget Estimate (Plan) for the F.Y. 2011-12 and Budget Estimates (Plan) for the F.Y. 2012-13.

Budget Estimates of Rs. 14252.12 lakhs for the F.Y. 2012-13 as Plan Grant recommended by the Finance Committee were approved by the Board.

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Chairman, BOG was authorized to take a decision on approval of the Revised Budget Estimates of Rs. 6522.19 lakhs for the F.Y. 2011-12, after the proposal is discussed with the MHRD officials for funds requirement with detailed justification for utilization within the current financial year.

BOG/2012:01:06	To discuss the Minutes of the meeting held on Sep 15, 2011 at New Delhi to examine the scope of responsibilities of architects of the Institute.

The recommendations of the committee were approved by the BOG. Accordingly, 10% of the total fee of an empaneled architect, as per the schedule of payment stage 4 in the agreement, will not be payable as CPWD has been entrusted with the responsibility of construction projects and work of stage 4 is carried out by CPWD only. This means the architects will be paid 4.5% of the total project cost for which they would be hired for all works in which CPWD has been given/ would be given the task of execution.

BOG/2012:01:07	To consider the request of Mr. Sachin Kumar Jain to extend his study leave for one more semester.

The request of Mr. Sachin Kumar Jain to extend his study leave for one more semester was approved by the BOG.

BOG/2012:01:08	To consider the request of Mr. Biswajeet Mukherjee for pursuing his Ph.D. from IIT Bombay.

The request of Mr. Biswajeet Mukherjee for pursuing his Ph.D. from IIT Bombay was approved initially for two years with a provision for only one time extension of one year of leave based on his performance.

BOG/2012:01:09	To consider the request of Dr. M. Ravi Babu, Assistant Professor in Electronics & Communication Engineering for grant of 24 months leave to join IIT Ropar on being selected for the post of Assistant Professor in the Department of Electrical Engineering while maintaining lien at the Institute.

The Board considered the request of Dr. M. Ravibabu for grant of 24 months leave to join IIT Ropar as Assistant professor in the Dept. of Electrical Engineering. After deliberations the Board approved leave of 12 months to Dr. M. Ravibabu while maintaining lien at the Institute for the said period.

BOG/2012:01:10	Submission of Annual Report/Annual Accounts of the Institute.

The approvals accorded by the Chairman were ratified.

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BOG/2012:01:11	Proposal to create positions of Dean and Associate Dean – Academic, Students, Faculty, R&D and Resource Planning and Generation

The Board approved the proposal of the Institute for creation of the following positions of Deans in the Institute in addition to the already approved position of Dean (Planning & Development).

(a)   Dean (Academics),

(b)   Dean (Students),

The Board suggested that the responsibilities of Faculty and R&D be looked after presently by the Director herself, as the Institute is in growing stage.

BOG/2012:01:12	Proposal for the block period of Professional Development Allowance (PDA) of Faculty

The Board advised that the matter be referred to the MHRD for a clarification. The representatives from the MHRD informed the members that the present block period is from April 2011 – March 2014.

At this moment, the Director sought a clarification on a related matter regarding revision of special allowances to deans, hostel wardens and faculty involved in administration, as the notification issued for IITs does not clearly spell out the date of revision of allowances. It was decided to discuss this item with the approval of the Chairman under the agenda item **BOG/2012:01:18** - Any other item with the permission of the Chair.

BOG/2012:01:13	Terms and Conditions for the appointment to the post of Director and Registrar.

The Board deliberated on the agenda and it was decided that the terms and conditions of appointment (including privileges) for the posts of director and registrar of the Institute should be similar to those in IITs. Further, for the post of registrar, norms followed for officers of Govt. of India on equivalent posts should also be taken into consideration. Prof. U.B. Desai and the Director were entrusted with the responsibility of modifying the terms and conditions in line with those followed in IITs. The same would be presented in a subsequent meeting of the Board.

BOG/2012:01:14	Adoption of MOA of UGC by the Institute as directed by the MHRD in place of the present MOA of the Institute.

Copies of the MOA were circulated to the Board members and it was decided that the matter will be discussed in a subsequent Board meeting.

BOG/2012:01:15	Implementation of the Career Advancement Scheme – Representation of the Faculty

The item was deferred.

BOG/2012:01:16	For creation of the posts of Teaching Associates on Contract

In order to overcome shortage of faculty, the institute was advised to introduce post graduate and Ph.D. programmes under slow pace with teaching assignments as one of the important components and utilize the services of these post graduate students to help faculty in the teaching programme of the Institute.

BOG/2012:01:17.1	Report of the UGC/AICTE Expert Committee

The recommendations made by the Committee were noted by the Board.

BOG/2012:01:17.2	Report of the Committee formed to inquire about the charges of plagiarism and theft against two faculty members of the Institute.

The Board noted the report of the Inquiry Committee with satisfaction and advised the Director to take action as deemed appropriate at the institute level.

BOG/2012:01:17.3	To consider the request of Dr. Bhupendra Gupta, Assistant Professor in Mathematics for grant of 24 months leave to join IIT Indore on being selected for the post of Assistant Professor in Mathematics while maintaining lien at the Institute.

Since Dr. Bhupendra Gupta had held the Institute responsible for his not joining IIT Indore, due to delay in taking decision on his application for lien. Information on his offer of appointment and the joining time at IIT Indore was sought from the Director, IIT Indore, Prof. Mathur, Board member. Director, IIT Indore informed the members that the offer of appointment to Dr. Bhupendra Gupta was withdrawn on January 2, 2012. The Director, IIT Indore also informed the members that Dr. Bhupendra Gupta was requesting for pay protection which was not accepted by IIT Indore. The Board decided that the leave granted to Dr. Bhupendra Gupta be cancelled.

BOG/2012:01:17:4	To incorporate the suggestions of the members of the Board in the Minutes of the BOG meeting held on Jun 30, 2011.

This item was discussed during the discussions held on action take report presented by the Director (in item no BOG/2012 :01.02).
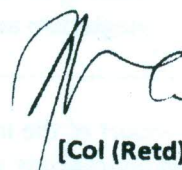
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BOG/2012:01:17:5	Honorarium to faculty for summer course.

The honorarium to faculty members for summer courses was reported to the Board. The Board ratified the same.

BOG/2012:01:18	Any other item with the permission of the Chair

BOG/2012:01:18.1 MHRD has revised the special allowances to Deans, hostel wardens and other faculty involved in administration as per a notification issued for IITs. The same revision has also been adopted by the Institute on the approval of the BOG. However, the MHRD notification does not specify the effective date of revision of allowances. The Director sought the clarification on the effective date from MHRD representatives, during discussion on agenda item BOG/2012:01:12. JS (T) assured to provide a clarification on the date of implementation of revised special allowances later.

The meeting of the BOG concluded with a vote of thanks to the Chair and the members present.

[Col (Retd) P.S. Sandhu]
Secretary, BOG

02 Feb 2012 .

BOG/2012:02:03　　　　**Vision Document of the Institute.**

It was decided to have an exclusive meeting of the Board to deliberate on the Vision Document in the month of February, 2012 in New Delhi. The vision document of the Institute is placed before the Board as **BOG/2012/2nd/Annexure/II**

ANNEXURE- II

VISION DOCUMENT OF THE INSTITUTE

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

Vision Document: Version 1.2
February 22, 2012

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Vision Document: Version 1.2

1. Introduction

The Institute was established in February, 2005 with the promising mission of providing quality education and research in IT enabled design and manufacturing. Hence, working across disciplines is a core component of our approach to education and research. The Institute runs undergraduate and post graduate programmes (including Ph.D.) in Computer Science and Engineering, Electronics and Communication Engineering and Mechanical Engineering. Apart from this, Master of Design, Ph.D. in Design and M. Tech., Mechatronics are also being offered by the Institute.

2. Vision

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

3. Mission

To create an environment of high quality research and training that

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

4. Values

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

a. Seeks to establish and maintain an environment enabling academic community to take intellectual and creative risks and to embrace changes that will lead to the technological innovations and development in future years.

b. Encourages, recognizes and rewards high performance in learning, teaching, scholarship, research and other creative activities by promoting intellectual curiosity and protecting the basic principles of academic freedom.

c. Provides an environment that imbibes respect for nature and environment, culture and human values.

d. Aspires to build an environment of tolerance and reasoned debate without any gender, caste, religious, regional or cross country bias by affirming the worth and personal dignity of every constituent member of the Institute and by contributing to a campus climate of civility.

5. Growth Plans and Directions

The Institute aspires to be a leader in redefining engineering education in the country with the motto *"Born for Innovation in Engineering"*. The Institute strives to develop and deliver innovative programmes designed to support its mission.

5.1 Long Term Plans

We wish to build our strength in

- **Innovative Design and Manufacturing** - in the areas of Bio-MEMS and NEMS, Communication Devices, Mechatronics and Robotics, Machine tool design and Security System Design
- **Computational Intelligence** - in the areas of biometric, computer vision, control and robotics, signal and image processing, pattern recognition, process control, software testing, visual cryptography.

- **Green Technology and Energy Systems Design** – in the areas of energy harvesting

We plan to prioritize our activities with the following aims.

- Contribution towards social needs of the Indian population in general and with focus on rural population.
- Establish and strengthen collaboration with centres of excellence in India and abroad to expand our horizon of research activities in emerging areas of global importance.
- Develop meaningful collaboration with industries in the following sectors –
  o Services
  o Security and Surveillance
  o MSME
  o Transportation

Suggestions of Shri Amit Khare : It would be desirable if we link the innovation agenda of the Institute with the strategy of National Innovation being planned by the National Innovation Council under the Chairmanship of Mr. Sam Pitroda. I am given to understand that the National Innovation Council is seeking to develop universities and institutions as platforms for innovations not only in the education sector but also for development of other sectors of the economy. Design Innovation will play an important role in this strategy. We may, therefore,

clearly indicate in our long term plan as to how the innovation agenda of the institute will be linked with wider agenda of innovation being pursued by the National Innovation Council.

The long term plan under vision document under para 5.1 has identified contribution towards social needs of rural population and strengthening collaboration with Centres of Excellence of the World. I would suggest that we also emphasize collaboration with nearby educational institutions so as to develop an eco-system of excellence in education in the vicinity of IIITDM.

5.2 Short Term Plans

a. <u>Stabilizing the Undergraduate Programmes with Design and Manufacturing Orientation</u>

Ever since the inception of the Institute, we have been striving to evolve a curriculum that suits the requirement and philosophy of the Institute. This however, is a challenge, as building a roadmap for education in nonconventional and emerging areas is a Herculean task. After certain iterations, we have now come up with our first version of an undergraduate curriculum that suits the theme of the Institute. We plan to stabilize our undergraduate programme by freezing the main components of the programme after experimentation and feedback from faculty, students and experts from various domains.

b. <u>Strengthening Research Activities in Specific Areas of Design /Manufacturing and in Interdisciplinary Areas</u>

In initial years, the Institute focused on its undergraduate programme. We are now concentrating on orienting our post graduate programmes (including Ph.D. programmes) towards our focused objectives. We plan to develop expertise and research facilities in identified areas and accordingly will set up the following centres.

- **Centre for Design Innovation**
- **Centre for Manufacturing Innovation**
- **Virtual Reality Centre**
- **Energy Centre**

c. <u>Introduction of New Undergraduate /Postgraduate Programmes</u>

Ideas have been given by faculty/experts to start undergraduate programme in (i) Design (ii) Bio Engineering.

d. Establishment of Minimum Residential Campus Infrastructure

For building the civil infrastructure, the Institute plans to finalize the architectural and structural design of the Design Studio (Hub of major research activities, faculty offices, seminar halls and lounge etc.) by the financial year 2011-12. A few important buildings that are going to come up during next five years are as follows- Lecture Hall and Tutorial Complex, Visitors' Hostel, Library –cum-Computer Centre, Post Graduate Hostel, Girls Hostel, Single Seated and Triple Seated Hostel, *Administrative Building, Design* Studios, Two Mess and Dining Halls, Health Centre, Multi Utility Centre, Residential buildings (Narmada Residency II and III, Reva Residency II), Students Activity Centre, Technology Incubation Centre and service network.

6. **Our Strength**

The faculty at present is working in one of the following areas of research.

- Innovative Design and Manufacturing
    - Embedded Systems Design
    - CAD/CAM and Rapid Prototyping
    - Design of Smart Structures
    - MEMS
    - Design of Energy Systems
    - Micro Nano Fabrication
    - Industrial Design

- Graphics, Vision and Image Processing
    - Computer Graphics and Vision
    - Image Processing, Pattern Recognition
    - Geometric Modelling
    - Biometric

- Data and Knowledge Engineering
    - Computational Linguistics and Natural Language Processing
    - Artificial Intelligence
    - Human Computer Interaction
    - Software Engineering
    - Data Engineering
    - Wireless and adhoc networks/ sensor network
    - Parallel Algorithms

- Electronics & Communication
    - High Frequency Electronics Design,

- o VLSI Design & Testing
- o Nanophotonics and plasmonics
- o Optoelectronics and Optical communication
- o Antenna Analysis Design & Fabrication,
- o Microwave Communication & MMIC Design, RF and Optical MEMS
- o Mutlidimensional Signal Processing
- o Design of Control Systems
- o *Sensors and Actuators*

Suggestions given by Shri Amit Khare: In para 6 relating to strengths of the Institute, perhaps only internal strengths have been identified. I would suggest that availability of trained manpower in and around technical institutes of Jabalpur like that of telecom may also be indicated as our strength and we may also utilize them in developing our vision statement.

7. **Present Infrastructure and Facilities**

Existing buildings in the Campus

- Core Lab Complex consisting of eight halls – presently being used for labs, class rooms, library, faculty offices, administrative section etc.
- Hall of Residence 1 - single seated – capacity 408
- Hall or Residence 3 – triple seated – capacity 498
- Service Block – electric substation
- Workshop Annexe and Mechatronics lab – Temporary structure
- Lecture Halls 3 nos. -- Two of Capacity 300 each and one of 100 capacity.

Existing Labs and Central Facilities: Following major lab facilities exist for research and development in the areas of interest of the faculty of the Institute.

S. No.	Name of the Machine
1.	CNC Turning Machine
2.	CNC Vertical Milling Centre
3.	Rapid Prototyping Machine
4.	Abrasive Waterjet Machining Center
5.	Injection Molding Machine
6.	X-Ray Diffractometry (XRD)
7.	Scanning Electron Microscope
8.	Atomic Force Microscopy (AFM)
9.	Infrared Camera
10.	Tool Dynamometer
11.	Universal Testing Machine

12.	Torsion Testing Machine
13.	Impact Testing Machine
14.	Fatigue Testing Machine
15.	EDM
16.	Computerized Diesel Engine Test Rig
17.	Petrol Engine Test Rig
18.	CNC Lathe
19.	Vertical Machining Centre
20.	Laser Vibrometer
21.	CAD/CAM software for product design, VLSI design and simulation, Microwave antenna design and simulation, FE analysis etc., Image processing tool boxes and tool kits.

Computer Centre Servers and Other Cluster Systems

S.No.	Servers	Services	Configuration
1.	DNS Servers	Running Institute DNS services, Institute Website	Intel Dual Quad-Core 64-Bit Intel Xeon 5420 2.5 GHz Processor/ Intel Chipset & Compatible With Processor/ 12 MB L2 Cache Memory/ 1333 MHz FSB/ 2 X 146 GB 15K RPM SAS Disks/ Embedded RAID Controller (0,1,5)/ 8 GB DDR II ECC SDRAM / Upgradeable Up to 32 GB/ DVD RW/ 10/100/1000 Dual Gigabit NIC/ Redundant Power Supply/ Rack Mount with Accessories, 1U/2U/ 2 PCI Express Slot in Motherboard/2 PCI Slots in Motherboard/ 4 USB Ports in Back Panel and 2 USB ports in front panel/ 1 serial port in back panel/ 3 Year Comprehensive Onsite Warranty/ Windows and Linux Certified.
2.	Mail server	Running mails services for Institute users	
3.	Proxy Servers	provide internet facility to Institute users	
4.	Application Servers	running various network license software used by Institute users	
5.	NFS Server	Storage area of all cc users	
6.	IBM Cluster	for Parallel Computing	Server Connectivity Module for Blade Center IBM Blade Center S 6-Disk Storage Module IBM Blade Center S 950W/1450W Auto-Sensing Power Supply Power Cable - Drawer to IBM PDU, 14-foot, 250V/10A

8. Challenges Ahead

(i) Non-availability of qualified and experienced faculty to take care of undergraduate programme and carry forward R&D activities

Faculty is the backbone in realizing all our plans and strategies. However, as it is well known, faculty shortage would remain one of the greatest challenges in future years. Although the number of Ph.D.'s passing out from good institutes and universities is increasing, still the number is not sufficient in catering to the need of Indian institutes and universities. Further the quality of Ph.D.'s produced has also become a great concern in the last few years. In addition to this, some of the private institutes offer very attractive salaries.

(ii) Infrastructure Development

The infrastructure development is one of the major hurdles in achieving our targets. Lack of *sufficient funds also sometimes contributes to the delay in construction of civil works and* related issues.

(iii) Disparity in the capability levels of students

The Institute needs to address the major challenge in bridging the gap between two sets of students at the same level. While some of the students remain focused and keep their pace of learning with the lecture courses /lab sessions, a large number of students get distracted from their main goals. Such students belong to one or more of the following groups.

   a) Coming from under privileged / weaker sections of the society and find it difficult to mix up with other students in hostels and class rooms.
   b) Coming from rural background and medium of instructions other than English at school level.

Excellence in academic education not only means providing best possible opportunities to bright minds, it also means empowering students who have not been able to recognize their potentials. This remains one of the principal challenges in classes, especially with large number of students and insufficient number of instructors.

(iv) Finances

The Institute has been getting sufficient funds to develop its infrastructure and run its administrative and establishment expenses, until now. However, the time has come when construction work of most of buildings will start and within a short span of time all major research labs will have to be established. This will require a significant amount of (a one time establishment) fund in near future. However, as per the trends of MHRD fund allocation to IIITs, a proportionate rise in the fund allocation can not be expected. Hence, in future unavailability of funds may become one of the main challenging components.

(v) Motivation of the faculty to work in groups in interdisciplinary areas

We find that motivating the faculty to collaborate with their fellow colleagues in broadening their areas of research and development is one of the major challenges. By and large the faculty members are young researchers who have completed Ph.D. in recent years. Most of them still wish to further their research work in their own areas of research in which they have been awarded Ph.D. degree. This becomes a challenge some times as research groups do not evolve and faculty keep doing isolated research in their own areas of interest without taking interest in other fields related with their areas.

(vi) Building Brand Name

9. Japan Collaboration

Govt of Japan and India have signed a memorandum with Eight Fold Initiative for Collaboration towards Development of Pandit Dwarka Prasad Mishra Indian Institute of Information Technology Design and Manufacturing, Jabalpur under **JAPAN INDIA PARTNERSHIP IN A NEW ASIAN ERA: STRATEGIC ORIENTATION FOR JAPAN INDIA GLOBAL PARTNERSHIP.**

A brief account of goals and progress made in this direction is listed below -

9.1 Goals and Progress/ Achievements

Goals

The two sides had decided to nurture and strengthen PDPM IIIT DM, Jabalpur (IIITDMJ). This was planned through the following steps.

(a)   Academic assistance by Japanese side to develop expertise in those areas in which Japan has developed considerable skills and expertise.

(b)   Formation of Consortium of Japanese universities/institutes/industries for providing academic assistance in teaching and research in order to achieve the goals as mentioned in item (a).

(c)   Exchange of scholars between the Consortium partners or other organizations in Japan and IIITDMJ and the visits of IIITDMJ students for development of expertise as mentioned in Item (a).

(d)   Exchange visits will be financially supported within the limits of financial resources available of both the sides on a common basis on mutually approved terms.

(e)   Both sides to secure financial resources from public/private sectors for development of IIITDMJ.

(f)   Consortiums partners from Japan (as mentioned in Item 2) to hold joint conferences/ symposia / workshops on advanced research topics in India and Japan.

(g)   Continue discussion to explore other aspects of cooperation with respect to IIITDMJ.

(h)   Setting up of a joint steering committee at a later stage.

Progress Made

a) **A Consortium of Universities and Industries in Japan has been formed** with 12 partners consisting of 4 national universities, 2 private universities and six industries.

b) **Development of curriculum jointly by Japanese and Indian experts** to suit the academic philosophy of the Institute - IT enabled Design and Manufacturing.

c) **Visits of Japanese Experts to IIITDMJ - Cooperation in IIITDMJ's teaching programme.** Every year about 10-15 experts from Japan contribute in the teaching programme of IIIT DM Jabalpur.

d) **Donation of the state of the art manufacturing machines to IIITDMJ-** CNC Lathe Machine LCS 250 and Vertical Machining Centre by **Okuma Company.** Cost approximately Rs. 1.85 crores.

e) **Visits of IIITDMJ faculty to Japan** –Five young faculty members visit Japanese university and industries every year in December (one month approximately). **Objective:** Research collaboration. **Sponsored by Japan Government.**

f) **Internships and Exposure Visits** of approximately 20-25 students of IIITDMJ to Institutes and Industries in Japan Every Year. Internships help students in exposure to state of the art labs and cutting edge technologies and also pre placement offers. **Sponsored by Japan Government.**

g) **Long term Internship offers.** Based on the performance of our students, Canon, GE energy, Mitsubishi Heavy Industries and Hitachi Research have given their consent (in principle) to offer long term internships (six months approximately) to our students. Canon and MHI have given two long term project based internships this year. Nissan Renault will also be offering project based internships this year.

h) **Four joint R&D projects** in progress between faculty of IIITDM Jabalpur and Japan. New project proposals are in the pipeline.

i) **Joint organization of Seminars/conferences/workshops** Design Workshop 2010 held in October 2010. Next Design workshop in 2012. Exchange of design ideas amongst faculty, industry experts from different parts of the globe.

j) **Japanese Companies meeting to explore placement and internship opportunities for students.** Mitsubishi Heavy Industries (MHI) and Renault –Nissan visited during September – December 2011 to explore. Next visit of MHI scheduled in February, 2012.

k) **Consortium meeting held on July 28, 2009 in Tokyo** to discuss future scope and aspects of collaboration. **Main agenda of discussions for future collaboration** were- (i) Longer duration faculty exchange (ii) More students internships (iii) Support in students placements (iv) Technical and financial help in establishing a joint Centre for Innovative Design and Manufacturing (v) Inclusion of automobile companies in the consortium, and (vi) Research collaboration (vii) Post graduate students –mentorship programme for research.

9.2 Future Expectations

A. **Long Terms Collaboration for R&D in** (i) Security Electronics Devices - Design and Manufacturing (ii) Green Technology and Energy Systems Design. This can be achieved by

Establishment of Labs Jointly funded by GoI and GoJ - Rs. 80 million per annum for 5 Years by GoI and Matching grant by GoJ

(a)	Security Electronics Devices Lab -	Rs. 20 million per annum.
(b)	Energy Systems Lab -	Rs. 20 million per annum
(c)	Manufacturing Lab –	Rs. 20 million per annum
(d)	Domain specific labs –	Rs. 20 million per annum

In the domains of mutual interest --- Control, Electronics Hardware Design applicable to Aerospace, Automobile, Process Control, Machine Tools industries

B. **To establish a joint Centre of Innovative Design and Manufacturing.** A high end research and development unit at IIITDMJ. Experts from IIITDMJ and Japan would be the faculty, adjunct faculty and research staff. Lab to be established as given above will become basic infrastructure for establishment of such as centre.

C. **Increase in Internship offered by Japanese Companies.**

Japanese Companies have expressed their interest in recruiting students. However, they first *want to observe the students performance in long term internships of six month duration.* Presently, number of internships offered by Japanese companies is very few. Increase in the number of internships to 50 every year will help achieve the goals.

D. **Financial support from Government of Japan for mentoring of post graduate students by Japanese experts.** This will involve visits of Japanese experts to India and students of IIITDMJ to Japan and will help in initiating and intensifying research collaboration in identified areas of mutual interest.

BOG/2012:02:04   Any other item with the permission of the Chair

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

Minutes of BOG/2012/2nd Meeting of the Board of Governors held on February 24, 2012 from 2:00 p.m. in the Conference Room, Vigyan Bhawan Annexe, 2nd Floor, New Delhi.

Members Present:

1.	Prof. S. V. Raghavan Scientific Secretary to PSA, Govt. of India(GOI)	Chairman
2.	Prof. U. B. Desai Director, IIT Hyderabad	Member
3.	Prof. Ashok Jhunjhunwala IIT Madras	Member
4.	Shri Amit Khare, IAS JS, ICC, MHRD, GOI	Member
5.	Dr. Ajay Kumar Joint Secretary & Group Coordinator Department of Information Technology, GOI	Member
6.	Prof. Pradeep Mathur Director, IIT Indore	Member
6.	Prof. Aparajita Ojha, Director, PDPM-IIITDM Jabalpur	Member
7.	Prof. G.K. Sharma IIT Gandhi Nagar	Member
8.	Prof. R.K. Shyamasundar TIFR, Mumbai	Member
9.	Prof. Puneet Tandon PDPM IIITDM Jabalpur	Member
11.	Col. (Retd) P.S. Sandhu Registrar, PDPM-IIITDM Jabalpur	Secretary

Following member expressed their inability to attend the meeting due to their prior commitment and were granted leave of absence by the Chairman:

Shri Hari Ranjan Rao, Secretary, CM and Dept. of IT, Govt. of M.P.

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Shri R. D. Sahay, Dept. of Secondary & Higher education, MHRD, GOI

Shri N. Ravi Shankar, Administrator, Department of Telecommunications

Shri Sanjay Corea, Vice President & Managing Director, GE India Technology Centre Pvt. Ltd

BOG/2012 :02.01	Opening Remarks by the Chairman, Board of Governors

The Chairman, Prof. S. V. Raghavan welcomed the members of the Board who were present in the meeting and asked to continue with the agenda.

BOG/2012 :02.02	Confirmation of the Minutes of the BOG/2012/1st Meeting held on January 9, 2012.

The Minutes of the BOG/2012/1st Meeting held on January 9, 2012 were confirmed except the portion containing minutes of the agenda item BOG/2012/1/ in which a comment was received from Prof. Puneet Tandon. It was decided to discuss the item and the comment in the next meeting.

BOG/2012:02.03	Vision document of the Institute

A presentation was made by the Director on the vision of the Institute.

On Vision Statement

During the discussion on vision statement the Director brought out that IIITDM Jabalpur shall emerge as a Global Knowledge Hub for quality research and teaching under the broad area of Design and Manufacturing through cross disciplinary, innovative, futuristic and dynamic approaches.

Members were of the opinion that the Institute should have focused and well defined futuristic plans that would bring an impact on the higher education and research in the field of design and manufacturing. In order to envisage this, it is important to understand the challenges and needs of the society at large in the central part of India, which could be addressed and through which the Institute would make an impact on the life of people and become exemplary for the rest of the educational institutions. The Institute has a unique focus on IT, Design and Manufacturing. There is a need to identify Indian specific areas under this umbrella, particularly on

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products and devices, for building the strength of the Institute. The members envisaged the Institute to become a knowledge hub to provide leadership to other institutions in Madhya Pradesh apart from generating competent manpower. Various suggestions were given on identification of areas for R&D such as smart grids, health care, systems development, automation, electronic systems design and manufacturing, embedded systems, VLSI design and fabrication, automotive electronics, agricultural implements and energy systems design.

Members were of the view that for manufacturing sector, the specific targets need to be defined explicitly for building the Institute strength in identified directions. It was advised to look for problem areas of industries in and around Madhya Pradesh. It was further suggested to understand the expectations of the Industry and find the ways to collaborate with them for a sustainable long term relationship so that both the industries and students are benefitted with each other's presence. The industry will be looking at the Institute for help and guidance in indigenous design and manufacturing with lot of hopes. Since the Institute is located in central part of the country its vision should be inclusive of sustainable solutions to industry in the region.

Some of the other members were of the view that focusing attention to only region specific needs will not help in brining the Institute to a global map and hence it must also identify areas of global importance in defining its R&D growth plans.

The Director informed the members that links are being established with MSME in an around Jabalpur to take up challenging problems of design improvements, process refinements, automation and green innovations in the MSME sector. She further told the members that design projects of students also focus on providing low cost and effective solutions to problems of rural population for their domestic needs or agricultural requirement.
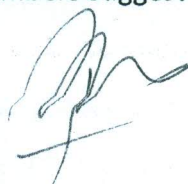
On Growth Plans and Directions

The Chairman emphasized that Innovative, futuristic and dynamic approaches are extremely important in the present context with rapid changes being witnessed across the world in technology development, teaching and learning methods. Further, cross and inter disciplinary approaches are the need of the hour. He expressed that Indian Industry need to develop

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competence in low cost electronic design and manufacturing for Indian conditions and hence there is a scope to march ahead in identified areas. He further said that the Japanese collaboration could be an advantage in developing expertise and R&D facilities in some of the identified areas. He mentioned that certain priority areas have been identified in the National Manufacturing Policy to energize and sustain the growth of manufacturing industries in India. He suggested that Institute's growth plans may be decided taking into consideration the Government's policy to build national capabilities in some of the strategic sectors such as IT hardware and electronics and telecommunication devices. He also suggested that the Institute should propose concrete plans, for example, on deliverables in next three years. At this juncture, one of the members elaborated on National Manufacturing Policy and suggested to take up some of the problems of current relevance including green technology, embedded systems design and chip level design for IT Hardware products. He emphasized on the Government's plan to bring qualitative and quantitative change for the global competitiveness of Indian manufacturing sector and suggested that the Institute could make significant contribution by taking part in activities in line with those envisaged in National Manufacturing Policy. It was emphasized at this point that the Indian industry requires quality technical education in the following three domains (1) Manpower generation, (2) Skill enhancement, and (3) Management; and the Institute should give due emphasis to these.

In order to envisage the growth plan, members were of the view that undergraduate and post graduate programmes of interdisciplinary nature need to be carefully built with specific focus on identified areas of IT, design / manufacturing. At this point, one of the members suggested that focus of the Institute should be on "design led manufacturing" which was appreciated by members. The Director elaborated on the initiatives taken by the Institute in evolving a unique undergraduate curriculum with focus on IT, Design and Manufacturing and informed the members that a component of long term (twenty five weeks) project based internship has been recently introduced in the undergraduate curriculum where the students are required to learn through practice while working on a live project in the industry / R&D project. This initiative of the Institute was appreciated by the members. It was further discussed that the Institute's focus is on MSME, domestic market, rural and agricultural sectors to improve the quality of life of people, by providing low cost indigenous and energy efficient solutions. Members suggested identifying areas

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and programmes keeping in view the goals and objectives laid down by the National Innovation Council.

Some of the members were of the view that innovative post graduate programmes should be introduced and strengthened with futuristic goals for producing human resource both for industry and academia as they form the backbone of all research activities in any good institute. One of the members also suggested planning strategies for attracting students to PG programme to shape up R&D programmes. Members suggested developing post graduate programmes focusing exclusively on lectures delivered by industry. They also emphasized that placement of master's students in good industries helps in creating linkages with industry and therefore efforts *should be made for placement of master's students.*

The Director unveiled the long term plans of the Institute with emphasis on Innovative Design and Manufacturing, Computational Intelligence, Green Technology and Energy Systems Design with the following objectives.

- <u>Contribution towards social needs of the Indian population in general and focus on rural population, in particular.</u>

  To become partner in the mission of National Innovation Council by encouraging inclusive innovation at the Institute level to mobilize and deploy India's best creative minds to serve the underprivileged and those who fall at the bottom of the socioeconomic pyramid (BOP).

- <u>Establish and strengthen collaboration with centres of excellence in India and abroad to expand the horizon of research activities in emerging areas of global importance.</u>

Members appreciated Institute's broad objectives and suggested to also develop an eco-system of excellence in education and research by involving nearby educational institutions/agricultural university/veterinary university/ medical college and other such institutions. The local Institutes and Engineering colleges should be given exposure on the research facilities being setup at the Institute and if possible short term courses / training programmes be run to educate the students and faculty of nearby engineering colleges and persons from industry to acquaint them with the latest technologies and innovations in the field of design and manufacturing. Members were

apprised of the efforts being made by the Institute in this direction. It was informed to the members that some of the nearby institutions are using the facilities and services. Workshops are being organized to train the faculty of the nearby institutions in some of the recent areas of advancement/ basic areas of studies.
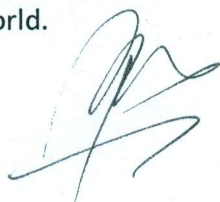
The Director also presented faculty's core strength in different fields of specialization and proposed to develop following centres –

- Centre for Design Innovation
- Centre for Manufacturing Innovation
- Virtual Reality Centre
- Energy Centre

On a question from a member regarding expansion plans in undergraduate (UG) education, the Director informed the members that it is planned to increase the students' intake by introducing two more undergraduate programmes. Although it has not been finalized yet, the Institute intends to introduce UG programmes in Design and Bio Engineering/ Bio medical engineering. It was suggested by some of the members that Institute should plan for at least 10,000 students and construction and planning activities may be executed phase-wise. The Chairman suggested that similar institutions should be interlinked through NKN to facilitate the interaction between students and faculty and utilize resources of other institutions.

Further Suggestions on Institute Branding, attracting young talents, addressing faculty shortage, establishing links with industry

Some of the members suggested celebrating innovation day annually by exhibiting the products and the processes students and faculty have been able to innovate during the period. This would give a platform for interaction between students (budding entrepreneurs), faculty and industry people for brining innovation to next level for technology development and marketing. I this regard, the Director told the members that annual exhibitions are being organized at small scale to showcase the design projects of the students. Making this a bigger event would certainly help in showcasing Institute's talent to the rest of the world.

Members further suggested inviting people from the industry to contribute in teaching programme of the Institute so that students and faculty get exposure to state of the art in industry. By way of this, industry-institute interaction will also be strengthened and students will be motivated to learn through practice. Further, this will help the Institute in overcoming the shortage of faculty to some extent. The Director informed the members that industry experts are being invited to contribute in the teaching programme and two experts have also been co – opted as members in the Senate. Members appreciated this initiative and emphasized that most of the industry experts may not get sufficient time to go personally to the Institute for delivery of lectures and hence video conferencing mode be optimally used so that in each relevant course at least 15-20% contribution could be ensured by the industry experts. It was advised that the Institute should adopt video lecturing as a practice at all levels of teaching. The Chairman further emphasized on innovative learning and teaching methods and suggested introduction of a post graduate programme, where NKN and video conferencing based lectures become major component of course delivery. The Chairman also suggested offering adjunct professor's positions to some outstanding people in different domains. Further, to encourage best practices in teaching a best teacher award may be instituted. To this one of the members suggested that a consortium of people, preferably from industry, be formed for each course as course advisors.

One of the members suggested celebrating 28th February - Science Day to get connected to the aspiring bright students from nearby schools.

Some of the members were of the opinion that a small advisory group (of approximately five experts, interdisciplinary in expertise levels) be constituted for the R&D expansion plans and activities of the Institute. It was advised that the Institute should make efforts to create difference in research through (a) curriculum development, (b) industry driven courses and (c) post graduate programmes for industry. These ideas were appreciated by members. At this point, the Chairman and members also advised that faculty of the Institute should be encouraged to take up summer internship at industry. They also suggested making provision for sponsoring important and strategic R&D projects of the faculty for development of research
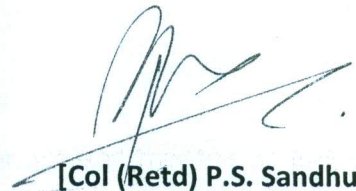
activities at the Institute on the prioritized areas. Members suggested that the project proposals submitted by the faculty may be vetted from external experts for funding by the Institute.

It was decided to discuss the Institute vision again after the ideas and suggestions given by members are discussed at the Institute level and due changes are incorporated in the vision document.

The meeting concluded with a vote of thanks to the Chair.

[Col (Retd) P.S. Sandhu]
Secretary, BOG
03 April 2022

From: director@iiitdmj.ac.in
Subject: BOG minutes 24-2-2012 approved-Please circulate
Date: Mon, April 2, 2012 10:16 am
To: registrar@iiitdmj.ac.in,rg@iiitdmj.ac.in

Dear Col. Sandhu,

Minutes of BOG are approved by the Chairman. Please circulate the attached
file containing the minutes of BOG 24-2-2012 meeting by mail to all the
members. Hard copy be also sent simultaneously.

Regards,

Aparajita Ojha
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Attachments:

BOG-24-2-2012ApprovedMinutes.doc
Size: 92 k
Type: application/msword