# BIRLA INSTITUTE OF TECHNOLOGY MESRA, RANCHI



# FIFTY FIRST MEETING OF THE BOARD OF GOVERNORS OF BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI

## **MINUTES**

Date: 02<sup>nd</sup> November, 2015

Time: 11:30 A.M.

Place: Birla Tower

25 Barakhamba Road NEW DELHI – 110 001

# BIRLA INSTITUTE OF TECHNOLOGY MESRA, RANCHI



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#### BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI

#### **MINUTES**

#### FIFTY FIRST MEETING OF THE BOARD OF GOVERNORS Held at 11.30 AM on 02<sup>nd</sup>November, 2015

Birla Tower, 25 Barakhamba Road, New Delhi

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	MEMBI	ERS PRESENT	
Shri C.K. Birla	-	Chairman	
Dr. M.K. Mishra	-	Member	Vice Chancellor
Shri Ajoy Kumar Singh	-	Member	Secretary
			Deptt. of Higher & Technical Education, Govt. of Jharkhand
Shri Nalin Kumar	-	Member	Nominee of the Chancellor
Shri M.L. Pachisia	=	Member	Nominee of HCT
Dr. P. Ghosh	=	Member	Nominee of General Council
Dr. Arbind Kumar	-	Member	Institute Faculty
Dr. Rajeev Agrawal	12	Member	Institute Faculty
Also Present:			- 194 - 190
Dr. S.K. Bose	12		Special Invitee
Dr. A.P. Krishna		Actg. Registrar & Secretary	
Shri P.C. Agarwala	-	Legal Advisor	Special Invitee
Shri S.S. Jajodia	321	Hony. Treasure	r Special Invitee
Leave of absence was granted to	the follow	ving members wh	o could not attend the meeting:
Director (Central Universities)	E	Member	Nominee of MHRD, Govt. of India
Dr. (Mrs.) Renu Batra		Member	Nominee of UGC
Shri D.N. Patodia	_	Member	Nominee of General Council
Mrs. Aradhna Patnaik	_	Member	Secretary
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			Deptt. of School Education & Literacy Dev., Govt. of Jharkhand
Shri Rohit Saboo	_	Member	Nominee of HCT
Shri K.K. Khandelwal		Member	Commissioner, South
			Chhotanagpur Division,
			Govt. of Jharkhand
Dr. Pradipta Banerjee	-	Member	Nominee of AICTE
Dr. Arup Roy Choudhury		Member	Nominee of General Council
Shri S.N. Agarwal	-	Member	Nominee of HCT
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#### 51.01 CONFIRMATION

The minutes of the 50th meeting of the Board of Governors (BoG) of the Institute were confirmed.

[Annexure I] 51.02 ACTION TAKEN REPORT ON MATTERS CONSIDERED IN THE LAST

**MEETING** 

The follow-up actions for implementation of items considered in the 50th

meeting of the Board were noted.

Item no.

Follow up action on matters considered by BOG

UGC Regulation 2010: 50.09 Revisions to the Institute's Memorandum of Association and Rules, as

per the UGC Regulations 2010 shall have to wait since these regulations are sub-judice before the Honorable Supreme Court as also clarifications sought from UGC are awaited

50.11 a) Campus Placement: As directed by the Board, a sub-committee on Training and Placement (T&P) under the Chairmanship of the Dean (Academic Programs) has analyzed the placement data from Mesra and off campuses and prepared a report for further strengthening the T & P throughout the BIT system. The proposal was presented to the Board which approved

the follow-up action. Report included as Annexure 50.11a

b) Upgradation of Civil and Mechanical Engineering Departments:

As directed by the Board, report from Heads of the Departments of Civil and Environmental Engineering and Mechanical Engineering are attached as Annexure 50.11b. Proposed respective budgets for upgradation of these two departments were approved by the Board.

Implementation of Career Advancement Scheme (CAS): 50.13 As authorized by the Board, the Career Advancement Scheme (CAS) Guidelines formulated by the Institute CAS committee, have been approved by the Vice Chancellor and uploaded on the Institute website.

50.14 Operation of bank accounts:

50.15

of fees for application form and semester fee. Therefore, this account has been retained and transferred from Dipatoli to Mesra Branch.

Any Other Item(s) with permission of the Chair:

a) Department of Humanities and Social Sciences:

As approved by the Board (resolution 48.22), the 'Department of Humanities and Social Sciences' has been notified, faculty to be attached

identified, and appropriate action is being initiated for functionalising

Two lecture halls have already been fully renovated and functional with smart classroom features. In addition, majority of the classrooms now

As per approval of the Board, changes in signatories of various bank accounts, opening of new accounts and closing of accounts have been effected. However, account no 31774971812 of State Bank of India, Dipatoli, Ranchi could not be closed as it has been identified for receipt

b) Smart classrooms:

this department.

have LCD projection facility.

c) Solar water heating facilities in the hostels:

Previously installed solar water heaters are being made functional after resolving legal and financial issues.

#### 51.03 ANNUAL REPORT 2014-2015

Annual Report for 2014-15 was placed and adopted by the Board.

#### 51.04 AWARD OF DEGREE/DIPLOMA

Recommendation of the Academic Council regarding award of Degree/Diploma to the students who have completed the prescribed requirements was considered as per Annexure II. Board approved the same.

The Board also authorized the Vice Chancellor to admit candidates to Ph.D degrees where all formalities have been concluded by 15th December 2015 for award during the coming convocation.

#### 51.05 UGC REGULATION 2010

Board noted that the action, regarding revised Memorandum of Association and Rules as warranted by the UGC Regulation 2010, awaits clarity from the Supreme court, where this matter is sub-judice, as also clarifications from UGC as sought from them.

#### 51.06 STAFF MATTERS

Board noted the details of resignation, superannuation, study leave, sabbatical leave, extra-ordinary leave, maternity leave etc. placed as Annexure III.

#### 51.07 PROMOTIONS AND TRANSFERS

Board noted the Promotions under Career Advancement Scheme (CAS) for the faculty members and other promotions of non-teaching positions as well as transfers placed as Annexure IV.

#### 51.08 RECRUITMENT OF FACULTY MEMBERS

Board noted that the applications received against various faculty positions in the last recruitment cycle were shortlisted, interviews held and appointments made as per the recommendations of the respective Selection Committees constituted as per appropriate UGC rules & regulations. Details were placed as Annexure V.

It was also noted that the fresh recruitment cycle was being initiated with advertisements shortly to be made for faculty positions in the academic departments and off campuses as per the assessed requirements.

#### 51.09 ALUMNI INTERACTION AND BITOSA GLOBAL

Board approved the following – "In supersession of all earlier decisions regarding functioning of BITOSA and other alumni associations, if any, including decision contained in item 47.25 of the Board, and to ensure compliance of resolution no. 50.10, the Board reaffirms that all alumni related interactions of B I T shall only be through BITOSA Global, which will be a web based umbrella organization without any liability to B I T in terms of provision of any permanent structure for its activities which are to be conducted by mutual consent of various Alumni Chapters or groups on their own".

#### 51.10 CAMPUS PLACEMENT

Board noted that till date, a total of 52 recruiters, covering all major sectors of the Industry, had visited BIT for participation in the Campus Recruitment Programme 2015-16. Total offers made so far were 1025. Details were placed as Annexure VI.

#### **51.11 STUDENT ACTIVITIES**

Board noted that since the last Board meeting, the students of B I T Mesra and other off Campuses organized several technical and cultural activities and also participated in many sports and games. Details were placed as Annexure VII.

#### 51.12 OPERATION OF BANK ACCOUNTS

Board approved the required changes in the signatories of various bank accounts as per details enclosed as Annexure VIII.

#### 51.13 INFRASTRUCTURE UPGRADE

Board noted that the following Institute facilities at B I T, Mesra were being upgraded into state-of-the-art facilities:

- i. Lecture Halls 1 and 2
- ii. Upgrade of existing class rooms into smart class rooms
- iii. Modernisation and upgrade of Training & Placement facilities
- iv. Golden Jubilee Auditorium
- v. CAT Auditorium
- vi. Water supply and Electricity supply
- vii. Institute Main Gate
- viii. Language Lab
- ix. Installation and functionalization of a High Performance Computer Cluster equipped with Cloud Computing.

#### 51.14 EXTENSION OF THE TENURE OF THE HONORARY TREASURER

Board was informed that the President of the General Council had extended the tenure of Honorary Treasurer Shri S.S. Jajodia by one year till July 2016. This was been recorded in the 31st General Council meeting.

#### 51.15 ANY OTHER ITEM(S) WITH PERMISSION OF THE CHAIR

Board approved the additional amounts to be incurred for DST-FIST supported upgradation of the laboratory equipments in respect of Electronics and Electrical Engineering and Pharmaceutical Science and Technology Departments respectively.

Oh.

(Dr. A.P. Krishna) Registrar (Actg.) & Secretary Board of Governors BIT, Mesra, Ranchi

Date: 25 December, 2015

# ANNEXURE – I

(Item No. :51.01)
Confirmation

#### BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI

#### **MINUTES**

#### FIFTIETH MEETING OF THE BOARD OF GOVERNORS Held at 11.30 AM on 07<sup>th</sup>May, 2015 Birla Tower, 25 Barakhamba Road, New Delhi

VIH	WB	KKS	PRES	HON

Shri C.K. Birla	·=	Chairman	
Dr. M.K. Mishra	-	Member	Vice Chancellor
Shri K.K. Khandelwal	=	Member	Commissioner, South
			Chhotanagpur Division,
			Govt. of Jharkhand
Dr. Pradipta Banerjee	=	Member	Nominee of AICTE
Shri Nalin Kumar	=	Member	Nominee of the Chancellor
OSD (Judicial) to			
Hon'ble Governor of Jharkhand			
Dr. P. Ghosh		Member	Nominee of General Council
Dr. Arup Roy Choudhury	-	Member	Nominee of General Council
Shri S.N. Agarwal	=:	Member	Nominee of HCT
Dr. J.K. Prasad	=	Member	Institute Faculty
Dr. (Ms) Prabjot Kaur	. <del></del>	Member	Institute Faculty
		-	
Also Present:			
Dr. R. Sukeshkumar	=	Dean (FA)	Special Invitee
Dr. B.K. Singh	=	Dean (AP)	Special Invitee
Dr. A.P. Krishna	-	Actg. Registrar	
		& Secretary	
Shri P.C. Agarwala		Legal Advisor	Special Invitee
Shri Yogesh Goenka	-	Asstt. Hony.	Special Invitee
		Treasurer	· ·
			11
Leave of absence was granted to the	ne follow	ving members wh	o could not attend the
meeting:			
Shri R.D. Sahay	_	Member	Nominee of MHRD,
Silli R.D. Sallay		TVICATIOC1	Govt. of India
Dr. (Mrs.) Renu Batra	_	Member	Nominee of UGC
Shri D.N. Patodia	**************************************	Member	Nominee of General Council
	100 A	Member	Principal Secretary
Shri L. Khiangtae	-	Memoer	Dept. of Science & Technology,
			Govt. of Jharkhand
Cl. W. Widanasan		Member	Principal Secretary
Shri K. Vidyasagar	157	Wiemoer	Dept. of Human Resource
			Dev., Govt. of Jharkhand
CL 'MI Deskiele		Member	Nominee of HCT
Shri M.L. Pachisia		Mambar	Nominee of HCT

Shri Rohit Saboo

Member Nominee of HCT

The Members complimented the Chairman on the occasion of the Fiftieth Meeting of BoG.

#### **50.01 CONFIRMATION**

The minutes of the 49th meeting of the Board of Governors (BoG) of the Institute were confirmed.

[Annexure I]

## 50.02 ACTION TAKEN REPORT ON MATTERS CONSIDERED IN THE LAST MEETING

The follow-up actions for implementation of items considered in the 49th meeting of the Board were noted.

49.05 UGC Regulation 2010:

Revisions to the Institute's Memorandum of Association and Rules, as per the UGC Regulations 2010, await clarity by the Honorable Supreme Court, where these regulations are sub-judice, as also clarifications from UGC as sought from them.

49.13 Date of implementation of promotion/appointment of faculty members under Career Advancement Scheme (CAS):

As approved, following provisions have been brought into practice:

"Promotions under the Career Advancement Scheme (CAS) shall be done after considering appropriate and applicable provisions of current Regulations of the University Grants Commission complying with the norms of Selection Committees and Selection Procedures as well as API score requirements, and such minimum norms shall be similar for promotions either through direct recruitment or through CAS.

Such promotions under CAS shall be effective from the date of joining the new post of promotion, rounded off to the 1st day of the next month."

## 50.03 ANNUAL ACCOUNTS AND AUDIT REPORT FOR THE FINANCIAL YEAR 2014-15

Institute's Annual Accounts and the Auditor's report for the FY 2014-15 were perused, recorded and recommended by the Board for approval of the General Council.

## 50.04 BUDGET ESTIMATES FOR 2015-16 AND FINANCE COMMITTEE RECOMMENDATIONS

Board noted the Institute's Budget Estimates for FY 2015-16 as approved by the Finance Committee.

#### 50.05 XXV CONVOCATION

Board noted that the XXV Convocation was held on 12th December, 2014. Chancellor of the Institute, the Honourable Governor of Jharkhand, Dr. Syed Ahmed presided. Padma Shri Dr. Madhavan Chandradathan, Distinguished Scientist and Director, Vikram Sarabhai Space Research Centre (VSSC), ISRO, Department of Space and an alumnus of BIT Mesra delivered the Convocation Address as Chief Guest. A total of 39 Ph.D. degrees, 902 Post Graduate degrees, 1446 Bachelors degrees and 165 Diplomas were awarded in various disciplines of Engineering & Technology, Science and Management.

[Annexure II]

#### 50.06 INFORMATION ON STAFF MATTERS

The details of resignation, superannuation, study leave, sabbatical leave, extraordinary leave, maternity leave etc. were placed for information and Board noted the same.

[Annexure III]

Board expressed its concern on Faculty members leaving the Institute and it was suggested that in appropriate cases, 'Exit Interview' of such faculty members may be done.

#### 50.07 PROMOTIONS AND TRANSFERS

Promotions under Career Advancement Scheme (CAS) for the faculty members and other promotions of non-teaching positions as well as transfers were reported and Board noted the same.

[Annexure IV]

#### 50.08 RECRUITMENT OF FACULTY MEMBERS

Board noted that the applications received against various faculty positions in the last recruitment cycle pertaining to 12 Academic Departments were shortlisted, interviews held and appointments made as per the recommendations of the respective Selection Committees constituted as per appropriate UGC rules & regulations.

#### 50.09 UGC REGULATION 2010

Board was informed that the revisions to the Institute's Memorandum of Association and Rules, as per the UGC Regulations 2010 shall have to wait since these regulations are sub-judice before the Honorable Supreme Court as also clarifications sought from UGC are awaited.

#### 50.10 ALUMNI INTERACTION AND BITOSA GLOBAL

Since BITOSA Global with Chairman, BoG, BIT Mesra as Patron-in-Chief has already been functionalized on 22<sup>nd</sup> March 2014, all old students and alumni matters are proposed to be dealt through BITOSA Global only. Board approved the same.

#### 50.11 CAMPUS PLACEMENT

Board was informed that till date, a total of 94 recruiters, covering all major sectors of the Industry, have visited BIT for participation in the Campus Recruitment Programme 2014-15 with a total of 1406 offers made so far.

[Annexure V]

This issue was discussed further with the observation that campus placement record of BIT Mesra main campus was good but placement in the off-campuses need improvement. It was also noted that placement in Civil and Mechanical disciplines require attention.

The Board directed that a Sub-Committee examine the placement trends and suggest measures to improve these. The Board also directed that a team from Civil Engineering be sent to IIT Roorkee and another from Mechanical Engineering to IIT Madras for benchmarking of B I T laboratory facilities in these areas.

#### **50.12 STUDENT ACTIVITIES**

Board was informed that the students of B I T Mesra and other off Campuses organized several technical and cultural activities and also participated in many sports and games.

[Annexure VI]

#### 50.13 IMPLEMENTATION OF CAREER ADVANCEMENT SCHEME (CAS)

Board was informed that CAS related promotions have been made in 12 departments as per the guidelines approved by the Board.

It is desirable that a detailed guideline including norms for API Score, Counting of service(s) rendered at other institutions etc. be prepared for ready reference by the Institute CAS Committee as also the applicants for CAS based promotions.

Board authorized the Vice Chancellor to accord approval of the appropriately aligned CAS Guidelines on behalf of the BOG.

#### 50.14 OPENING / OPERATION OF BANK ACCOUNTS

Board approved the proposal regarding opening of new accounts, closing of accounts and changes in signatories of various bank accounts.

[Annexure VII]

#### 50.15 ANY OTHER ITEM(S) WITH PERMISSION OF THE CHAIR

- i. The Board desired that existing class rooms be upgraded to Smart Classrooms having appropriate band width.
- ii. The Board was informed that IIT-Roorkee had created Solar Generating capacity in its campus with financial assistance from MNRE with saving of 30% energy consumption. Board desired that such possibility be explored for B I T.

(Dr. A.P. Krishna)

Registrar (Actg.) & Secretary

Board of Governors

BIT, Mesra, Ranchi

Date: 20 October, 2015

# ATR ANNEXURES

(Item No. :51.02)

Action Taken Report 50.11a

#### Minutes of the meeting of the Placement Committee

A meeting of placement committee was held on 04.08.2015, at 04:00 PM in MR-II. T&P Division of the institute.

Following members present were present during the meeting:

- Dr. B K. Singh, Dean (Academic Programme) : Chairman
- Dr. G. Sahoo, Dean (Admissions & Acad. Cord.)
  - : Member Dr. T. Ghosh, Dean(Sponsored Research) : Member
- Dr. R. Sukesh Kumar, Dean (Faculty Affairs) : Member
- : Member Secretary Dr. Rajeev Agrawal, I/C Training and Placement

Dr. B. K. Mishra and Dr. S. K. Bose could not attend the meeting.

The objective of the meeting is to discuss and examine:

"Comprehensively the placement statistics for students of BIT, Mesra and all off campuses and suggest appropriate measures for enhancement placement for the students".

The Committee gone through the same and after deliberations the following recommendations/decisions were made -

- 1. Placement Statistics the data was discussed in detail. The Committee, after deliberations recommended that data pertaining to placement needs to be analyzed for Mesra as well as for all off campuses. In addition to this admission ranking, previous academic records and C.G. P.A. at B.I.T., need to be analyzed category wise.
- 2. Dept. wise placement advisor the committee apprise that, Placement Office of BIT works in a dedicated way towards generating career opportunities through the Campus Recruitment Programme for ALL students.

There is a dire need of larger interactions of the departments with the Industry. With increasing number of students and courses including the branches and centers the committee felt the need for placement advisor for each department and centers. (With 2 UG representative each and 2 PG student representative for each programme).

The scope of the department placement advisors are as follows:

To interaction with students for organizing training and placement related activities pertaining to programmes offered by department,

- To interaction with companies related to branch and specialization department/centers offers,
- Organizing and coordinating frequent industrial visits, in plant training and projects of industrial relevance for the students,
- Interaction/requirement of core companies for UG and PG branch.
- Helps every student define his/her career interest through individual expert counseling,
- Coordinating with companies to learn about their recruitment procedures/requirement,
- Possibilities Recruitment of PG students in core companies
- Further efforts to be initiated to increase larger awareness of our more specialized PG Programmes.
- 3. Feedback The feedback given by the companies was discussed. Most of the companies suggested:
  - a) Gap in response to general/task/knowledge is wide
  - b) Students should visit industries.
  - c) Visiting faculty from nearby industries should be invited
  - d) Required of technical preparedness,
- 4. Back papers For reducing the number of back loggers in the final year, and pre-final year, a proper mechanism is to be devised to prevent the weak students with many backlogs from reaching the pre-final and final years. Also the reason for backlogs in courses where the number of backlogs are high to be analyzed.

The meeting ended at 05.30 PM with a vote of thanks to and by the Chair.

Dr. G. Sahoo,

Member

Member

Dr. Rajeev Agrawal,

Member Secretary

Chairman

# ATR ANNEXURES

(Item No.:51.02)

Action Taken Report 50.11b

### DEPARTMENT OF CIVIL & ENVIRONMENTAL ENGINEERING BIRLA INSTITUTE OF TECHNOLOGY MESRA, RANCHI

Date: 16.10.2015

The list of equipments which need to be procured for updating lab facilities in the 1st phase for the Department of Civil and Environmental Engineering with approximate prices listed below:

- - ₹ 20,00,000 .00 1. Non Destructive Test Equipment:
  - ₹ 35,00,000 .00
  - 2. Dynamic Actuator (100kN Capacity):
  - ₹ 3,00,000 .00 3. Vicat's Apparatus Digital: ₹ 8,00,000 .00 4. Chloride content test apparatus:
  - ₹ 25,00,000 .00 5. Laser Particle size analyzer:
  - ₹ 45,00,000 .00 6. Cyclic Triaxial Machine:

## Total: In Words: Rupees One Crore Thirty Six Lakhs only

₹ 1,36,00,000.00

#### Specialization: Structural Engineering (UG, PG, Phd)

The Structural Engineering specialization lab facility at IIT Roorkee has been spread into subgroups as listed below:

- a) Material Testing Lab
- b) Heavy Testing Lab Including Workshop
- c) Concrete Casting Lab
- d) Experimental Structural Analysis Lab
- e) CAD and Wind Tunnel Lab

In alignment with Institute vision and not to forget PG and research program too is offered under specialization Structural Engineering by the Department. Research facility comparison is provided at Table SE1. Table SE 1 below gives major research facilities for Structural Engineering specialization present at IIT R and BIT Mesra, Ranchi:

IIT Roorkee	BIT Mesra, Ranchi	
Various manual and computerized UTM capacities for test model as well as for full scale.	Nil	
	Nil *	
Equipment for non-destructive tests, accelerated corrosion test facility,		
Strong floor and strong wall, loading frames,	Nil	
A suite for computer controlled actuators, data acquisition system and transducers,	Nil	
Displacement-controlled universal testing setup	Nil	
Image acquisition and processing equipment	Nil	

Table SE 1: Major Facilities for Research

<sup>\*</sup> Rebound hammer, Ultrasonic pulse velocity available but not up to date and is not in working condition.

A comparison of the major lab facility under structural engineering specialization at IIT R with BIT Mesra is presented in *Table SE 2* below:

	IIT Roorkee	BIT Mesra
	Material Testing Lab	
1	UTM (Universal Testing Machine)	
	a) 10t	✓ (CIF) (limited specime size test possible)
	b) 20t	X
	c) 500kN	X
2	CTM (Compression Testing Machine	
	a) 1000kN	✓
	b) 200t	X
3	Automatic Servo controlled CTM - 5000kN	X
4	5000kN closed loop C.T.M	X
5	Vicat test apparatus  a) Manual  b) Digital	✓ (Only Manual)
6	Cement autoclave	X
7	Accelerating curing tank	X
8	Rebound hammer	X (Not Working)
9	Ultrasonic pulse velocity	X (Not Working)
10	Cover meter	X
11	Flexure testing machine - 300kN	✓ (200kN, Not Working)
12	Flexure testing machine - 50kN	X
13	Cement Testing Machine	✓
14	Air content Apparatus (permeability)	X
15	Mortar Mixer	✓
16	High Frequency vibrator	X
17	Vibrating table	✓ (Not Working)
18	Compacting factor test apparatus	✓
19	Cum Flow Pan mixer	X
20	concrete mixer	✓ (Not Working)
21	Cement Storing silos	X
22	Cement mortar vibrator	✓
23	Humidity Chamber	X
24	Temperature controlled Curing tank	X
25	Blaine's air permeability apparatus	X
26	Vee Bee Test Apparatus	✓
27	Capo Test	X
28	Moisture meter	X
29	SEM	✓ (CIF)
30	AFM	X
31	XRD	X

	Table SE 2 - List of Major	
	Marsh cone test	X
_	Mini Slump test apparatus	X
34	Flow table test	X
35	Double distillation plant	X
_	Abrasion Testing machine	<b>√</b>
	Crushing value	<b>✓</b>
38	Impact Value	<b>√</b>
39	Elongation and Flakiness test	<b>√</b>
40	Slump Cone	<b>✓</b>
41	Concrete permeability Apparatus	✓
42	TGTA	X
43	Specific gravity of coarse aggregate	X
44	Carbonation chamber	<b>√</b>
45	Corrosion analyser	✓
	Heavy Testing Lab Including Workshop	
1	250t Servo Hydraulic closed loop UTM	X
2	300t Reaction Frame	X
3	25t Reaction frame	✓ 20t Reaction Frame
4	1000t Compression testing machine	X
5	500t Compression testing machine	X
6	Creep and shrinkage test facility	X
7	100 kN Dynamic actuator	X
8	50t Tension- compression Hydraulic jack	√ (Tension Not working)
9	Concrete Test hammer - M type, N Type, P Type	X
10	Resistivity meter	X
11	Ultrasonic pulse velocity	X
12	Cover meter	X
13	Half cell potential	X
14	High temperature muffle furnace	X
	Concrete casting lab	
1	Casting Yard, With Various Mould Size	✓ (at Lab itself)
Ехре	rimental Structural Analysis Lab*	
1	Strain gauge Indicator	X
2	Column Buckling Apparatus	✓
3	Two Hinged Arch Apparatus, Weight's	X
4	Portal Frame Apparatus	X
5	Overhang beam	X
6	Truss Apparatus	✓ (Not Working)
7	Muller Breslau Principal Begg's Deformeter	X
8	Micrometer, Microscope, Functioning plugs	X
9	Clerk Maxwell's Reciprocal Theorem apparatus	Х
10	Diffused light research polariscope	X
11	Moment of area theorem apparatus.	Х
12	Weights, Hanger, Dial Gauge, Verniar caliper.	✓
13	Simple Supported and continuous beam model	✓

	Table SE 2 - List of Major E	quipment's
	CAD and Wind Tunnel Lab	
1	CAD Lab With Software:	
	a) Abaqus 6.8	X
	b) ANSYS Academic Research v 15.0	✓ ANSYS V11 (Central CAD Facility)
	c) Bentley Academic Select for Civil (50+ products)	✓ (only one product i.e STAAD Pro 2006)
	d) SAP2000 Ult v- 17	X
	e) ETABS Uit v-2013	X
	f) SAFE P/T v-2014	X
	g) Autocad 2009	X
2	Wind Tunnel Lab	Х

Considering utilization of major laboratory facilities for UG, PG and Research activity at BIT Mesra, the present equipment utilization is also looked into. Table SE 3 Below gives the detail of utilization of equipment/software.

Table SE 3- Utilization of major equipment/software		Required Usage Low (L), Medium (M) High (H)			
	BIT Mesra	Status	UG	PG	Research Scholar
1	UTM (Universal Testing Machine) -10 t	✓ (CIF)	L	M	M
2	CTM (Compression Testing Machine - 100 t	<b>✓</b>	Н	L	L
3	Vicat test apparatus	✓	Н	L	L
4	Rebound hammer	(Not Working- Out to date)	L	L	L
5	Ultrasonic pulse velocity	(Not Working- Out to date)	L	L	L
6	Flexure testing machine - 200kN	( Not Working)	L	L	L
7	Cement Testing Machine	<b>✓</b>	M	L	_
8	Mortar Mixer	✓	Н	L	L
9	Vibrating table	(Not Working)	Н	L	L
10	Compacting factor test apparatus	✓	Н	L	L
11	concrete mixer	(Not Working)	Н	L	L
12	Cement mortar vibrator	✓	Н	L	L
13	Vee Bee Test Apparatus	✓	Н	L	L
14	SEM	✓ (CIF)	L	M	L
15	Abrasion Testing machine	✓	Н	L	L
16	Crushing value	✓	Н	L	L
17	Impact Value	1	Н	L	L
18	Elongation and Flakiness test	✓	Н	L	L
19	Slump Cone	✓	Н	L	L
20	Concrete permeability Apparatus	✓	L	M	M
21	Carbonation chamber	✓	L	M	M

Table SE 3- Utilization of major equ		quipment/software	Required Usa pment/software Low (L), Medium High (H)		Medium (M)
22	Corrosion analyser	✓	L	М	М
23	20t Reaction frame	( No Loading Facility)	Н	L	L
24	50t Tension- compression Hydraulic jack	✓ (Tension Not working)	Н	L	L
25	Column Buckling Apparatus	✓	Н	L	L
26	Truss Apparatus	(Not Working)	Н	L	L
27	Weights, Hanger, Dial Gauge, Verniar caliper.	✓	Н	L	L
28	Simple Supported beam model	✓	Н	L	L
29	Continious beam	✓	Н	L	L
30	ANSYS V11	✓ (Central CAD Facility)	М	М	M
31	STAAD Pro 2006	✓ (Central CAD Facility)	Н	М	L
%	age of Equipment in Working condition	68%			
	UG utilisation %age for present Lab				
	Equipment	77%			
	PG utilisation %age for present Lab				
	Equipment	29%			

25%

The present major lab equipment facility utilization is 77% for UG, 29% for

It is found that 68% of the facility is in working condition.

Equipment

Research Scholar %age for present facility

PG and 25% for research scholar.

#### Conclusion:

- In heavy structural engineering laboratory it is found that most of the
  equipment are not in working condition. It was recommended to
  check if those equipment's can be repaired to working condition. In
  case those equipment is beyond repair, it was suggested to get it
  replaced. The Department is already looking for vendors who can sort
  this out.
  - The purchase of few equipment's has already been approved, these equipment's will be utilized by VIII semester students. We have received one Quotation till date and we are awaiting for two more Quotations for final generation of purchase order.
  - Considering wide gap in research facility under Structural Engineering, It was recommended to enhance it. However there are few challenges in attaining the same.

- Firstly if we want our research facility in par with IIT-R, we would require more space for its instalment.
- Secondly utilization of facility very frequently. We had observed at IIT-R that there were equipment's which were idle, reason might be currently none of the research work required utilization of that equipment.
- Unless separate working area is finalized and approved to department, it is difficult to list the equipment's that will house the proposed area provided.
- However we can get Non Destructive equipment as well as Dynamic/ Static actuators as our current working space can house it. The approximate costing of these equipment are:
  - 1. NDT Equipment:

3. Vicat's Apparatus Digital:

Rs 20, 00,000

Rs 3,00000

2. Dynamic Actuator (100kN Capacity): Rs

Rs 35, 00,000

4. Chloride content test apparatus: Rs 8,00000

Total: Rs 66,00,000

### **Water Resources Engineering Laboratory**

Water resources Engg. Laboratory of Civil Engineering, BIT Mesra is conducted jointly in the Civil Engg. & Mech. Engg. Departments.

S.No.	Equipments/	Status at BIT Mesra
1.	Experiments at IIT Venturimeter	Not working (Mech. Engg.)
2.	Velocity distribution in pipe	Not working (Mech. Engg.)
3.	Bernoulli's Equation	Working (Mech. Engg.)
4.	Orifice Meter	Working (Mech. Engg.)
5.	Momentum Equation	Does not exist
6.	Darcy's Law	Working (Civil Engg.)
7.	Minor Losses	Does not exist
8.	Friction Factor	Not working (Mech. Engg.)
9.	Flow Transition	Does not exist
10.	Surface Tension	Does not exist
11.	Unit weight of Liquids	Working (Mech, Engg.)
12.	Bend Meter	Does not exist
13.	Stoke's Law	Does not exist
14.	Transition in Open Channel & Tractive Shear	Does not exist
15.	Uniform flow in open channel	Working (Civil Engg.)
16.	Boundary Layer	Does not exist
17.	Drag on a cylinder	Does not exist
18.	Flood routing	Does not exist

#### Water Resources Engineering Laboratory (contd.)

S.No.	Additional Equipments/ Experiments at IIT	Status
1.	Helle-Shaw apparatus	Working (Civil Engg.)
2.	Hydraulic Jump	Working (Civil Engg.)
3.	Rectangular Notch	Working (Mech. Engg.)
4.	Triangular Notch	Working (Mech. Engg.)
5.	Orifice	Working (Mech. Engg.)
6.	Metacentric Height	Working (Mech. Engg.)
7.	Centre of Pressure	Working (Mech. Engg.)
8.	Vortex Motion	Working (Mech. Engg.)

The water resources/ fluid mechanics laboratories of BIT Mesra are well equipped for conducting UG classes. But, for PG classes and research purposes we need to upgrade the facilities. The overhead tank is needed to be repaired. Also, for installing new equipments sufficient spaces are required.

Soil M	<u>lechanics &amp; Foundation En</u>	gineering Laboratory
S.No.	Equipments/ Experiments at IIT Roorkee	Status at BIT Mesra
1.	Determination of Moisture Content	Working
2.	Determination of Specific Gravity	Working
3.	Sieve Analysis	Sieve Shaker does not work
4.	Hydrometer	Working
5.	Laser Particle Size Analyzer (it replaces hydrometer, can provide grain size distribution within 10 sec time)	Does not exist, must be procured
6.	Liquid Limit test	Working
7.	Plastic Limit test	Working
8.	Shrinkage Limit test	Working
9.	Relative Density	Does not exist
10.	Proctor Compaction	Working
11.	Constant Head Permeability	Working
12.	Falling Head Permeability	Working
13.	Static Triaxial test (Digital computer controlled)	Not working (minor repairing needed costing around Rs. 25000)
14.	(Static cum ) Cyclic Triaxial test	Does not exist
15.	Direct Shear test (6 cm x 6cm)	Working
16.	Large Box Shear Test (1 m x 1m)	we have 40 cm x 40 cm size
17.	Vane Shear Test	Working
18.	Consolidation Test	Working
19.	Pressuremeter Test	Does not work
20.	North Dakota Test	Working
21.	Plate Load Test	Working
22.	Standard Penetration Test	Working

California Bearing Ratio	Working	
Test		
Electro Osmosis Test Does not wo		
6	Broken/ Needed to be	
	replaced	
Geosynthetic Materials	Does not exist	
Equivalent Aperture Tester		
Geotextile Penetrometer	Does not exist	
Pull Out Test Apparatus	Does not exist	
Static Cone Penetration	Does not exist	
Test		
Dynamic Cone Penetration	Working	
Test	2	
Sand Relacement Method	Working	
	Test Electro Osmosis Test  Geosynthetic Materials Equivalent Aperture Tester Geotextile Penetrometer Pull Out Test Apparatus Static Cone Penetration Test Dynamic Cone Penetration Test	

Our Soil Mechanics Laboratory is well equipped and matches IIT Roorkee laboratory. But, the two most important equipments which we don't have are i) Laser particle size analyzer, and ii) Cyclic triaxial testing machine. The first one costs Rs. 22 – Rs. 25 lakhs depending on specifications. If possible, it should be purchased. The machine would be useful not only for regular laboratory classes, but also for consultancy works. The second one costs Rs. 45 lakhs (approx.). It would be useful for earthquake studies. Also, the existing digital triaxial testing machine should be repaired (it requires about Rs. 25000). All types of triaxial tests (UU, CU, Drained) may be performed with this. (It may be noted that the old triaxial machine is not capable for the CU, Drained tests and it has become outdated).

#### **Transportation Engineering**

The Department is not offering any PG or Research program in transportation engineering, Moreover the current facility area was merged with the space of Road and concrete laboratory of the Institute. Hence if we need to do the set-up of transportation engineering laboratory, this will add up the space requirement. Table below gives the comparison of major list of equipment of our Institute with that of IIT R.

S. No.	IIT Roorkee	BIT Mesra
1	Asphalt Rheometer	X
2	Radar Speedometer	X
3	Audio Visual system for traffic analysis	X
4	Automatic CBR test Machine	X
5	Sound level meter	X
6	Portable Weigh bridge	X
7	Hubbard Field test apparatus	✓
8	Traffic volume counters	X
9	Measuring wheel	X
10	Universal penetrometer	✓
11	Comuterized Marshall apparatus	X
12	Marshall apparatus	✓
13	Compterized Triaxial machine	X
14	Dynamic cone penetrometer	✓
15	Computerized fatigue testing machine	X
16	Benkelman beam	✓
17	Profilograph	<b>√</b>
18	Humidity chamber	X
19	Portable core cutting machine	X
20	Cloud and pour point apparatus	✓
21	Beam fatigue machine	X
22	Concrete permeability test apparatus	✓
23	Falling Weight Deflectometer	X
24	Rotational Viscometer	X
25	Standard tar viscometer	✓
26	Flash Point Apparatus	✓
27	Centrifuge extractor	✓
28	Bump Integrator	X
29	Mercury Porosimeter	X
30	Rolling thin film oven	X
31	Wheel rut tester	X
32	Potable skid resistance tester	X

Below gives the list of UG experiments conducted by the students of IIT R.

	List of Experiments at IIT R for UG
Soil Te	sting
a)	CBR Test
Aggreg	gate Test
a)	Specific Gravity and water absorption Test
b)	Aggregate Crushing Test
c)	Aggregate Impact Test
d)	Los Angeles abraision Test
e)	Shape Test
Bitume	en Test
a)	Specific gravity test
b)	Penetration test
c)	Ductility test
d)	Softening point test
e)	Flash and fire test
f)	Bitumen Mix design

Our UG students at BIT Mesra perform all these experiments with our current facility. Hence presently we do not require to upgrade the laboratory facility under transportation engineering. However in coming future with introduction of PG and research courses, the current lab space and requirement has to be upgraded.

#### **Estimated Budget:**

Sino	Laboratory Equipment	Specialization	Space Required	Approximate Cost
1	NDT Equipment	Structural Engineering	NIL	₹ 20,00,000.00
2	Dynamic Actuator (100kN Capacity)	Structural Engineering	NiL	₹ 35,00,000.00
3	Vicats Apparatus (Digital)	Structural Engineering	NIL	₹ 3,00,000.00
4	Chloride content measurement apparatus	Structural Engineering	Nil	₹ 8,00,000.00
5	Laser Particle size analyzer	Soil Mechanics and Foundation	Nil	₹ 25,00,000.00
6	Cyclic Triaxial Machine	Soil Mechanics and Foundation	100 sqft	₹ 45,00,000.00
		otal		₹ 136,00,000.00

# Birla Institute of Technology Mesra-Ranchi

#### Department of Mechanical Engineering

#### **Equipment required**

	Name of Equipment	Cost (Lakhs)
1	KUKA KR5 Industrial Robot with 6-Axis Force / Torque Sensor	28
	and Gripper	*
2	Computerized Subsonic Wind Tunnel Facility	19
	(Inclusive of all Accessories)	
3	Computerized Cross Flow Heat Exchanger Test Bench with	17
	replaceable test models with DAQ	
4	Liquid Tunnel	15
5	Digital Camera (DSLR) for flow capture and visualization	2
6	Thermal Conductivity of Solid Metals (positioning specimen	2
	type)With DAQ	
7	Temperature Measurement and Calibration Equipment	7.75
	With DAQ	
8	Heat Transfer Experimental Base Unit	
	(a) Linear Heat Conduction Exp.	
	(b) Radial Heat Conduction Exp.	16
	(c) Extended Surface Heat Transfer	
	(d) Conductivity of Liquid and Gases	
	With Fame mounted DAQ	
9	Radiant Heat Transfer Experiment setup with DAQ	12.8
10	Humidity Measurement Bench	10
11	Marqet Boiler Experiment with DAQ	11
12	Cascade Test Rig	4
13	Hydraulic Trainer and Pneumatic Trainer with PLC controller	15
14	ANSYS 16.1(Academic Teaching Mechanical & CFD)	7
11	25 Task Perpetual	
15	Fatigue Testing Machine	206340 EURO
	(High Frequency Resonant Testing Machine)	(154.755 Lakhs)
	Total	321.308 Lakhs

(Dr. Arbind Kumar)

Professor and Head

# A. Comparison between IIT Madras and BIT Mesra on the basis of laboratory Equipment

Sl.	At IIT Madras	At BIT Mesra
No.		
1.	Combustion Analyzer	No
2.	Electric discharge machining setup (Smart ZNC)	No
3.	Engine combustion analyser	Yes
4.	Engine components	Yes
5.	Exhaust emission analyzer	No
6.	Francis turbine (Altec, Coimbatore)	Yes
7.	Gravimetric fuel consumption meter	No
8.	Kaplan turbine (Devale)	Yes
9.	Machining force/torque transducer	No
10.	Multi cylinder compression ignition engine	Yes
11.	Pelton turbine	Yes
12.	Robot (KUKA KR – 16)	No
13.	Single cylinder compression ignition engine	Yes
14.	Single cylinder spark ignition engine	No
15.	Fuel injection setup	No
16.	Smoke meter	No
17.	Two stroke spark ignition engine	No
18.	VCR Engine setup	No
19.	Vertical machining centre	No
20.	Air Compressor	Yes
21.	Air conditioning Lab. Unit – A660	No
22.	Axial Fan Module – MF 107	Yes
23.	Bench top cooling tower	No
24.	Bomb calorimeter	No
25.	Centrifugal compressor module – MF105 Setup	Yes
26.	Centrifugal fan module -MFP106	Yes
27.	CNC Lathe	No
28.	Computer linked benchtop cooling tower	No
29.	Coordinate measuring machine	No
30.	Recirculation air conditioner	No
31.	Refrigeration cycle demonstration unit	No
32.	Refrigeration panel demonstration unit	No
33.	Roundness testing machine	No
34.	Series/Parallel pump test rig	No
35.	Subsonic wind tunnel setup (TQ)	No
36.	Surface grinding machine	No
37.	Surface structure measuring instrument	No
38.	Thermo electric heat pump	No

39.	Tool makers microscope	No
40.	Balancing of slider crank mechanism	No
41.	Boiling heat transfer setup	No
42.	Brookfield viscometer	No
43.	Closed loop temperature controller	No
44.	Combined convection and radiation heat transfer setup	Yes
45.	Density measurement (Westphal balance) setup	No
46.	Free and forced convection heat transfer setup	Yes
47.	Inverted pendulum	No
48.	Measurement of gas flow rate	No
49.	Mechanism design kit (MECH IT KIT)	No
50.	Microprocessor kit	No
51.	Pneumatic comparator	No
52.	Radiation heat transfer setup	Yes
53.	Rankine cycler setup	No
54.	Servo motor control and sensor (TQ Servo trainer	No
5.5	CE110)	No
55.	Strain and torque measurement setup	
56.	Thermocouple wire and mV Meter (Cold and Hot Junction)	No
57.	Vicker's hardness tester	No
58.	Viscosity measurement (Vogel Ossog Viscometer)	No
50	Setup Wear and Friction Monitor	No
59. 60.	Faro Laser tracker (for calibration).	No
61.	Vibration isolation table	No
	Wyko NT1100 – Optical 3D Profiling system	No
62. 63.	KERN Evo 5-Axis micro machining centre	No
64.	Contact type coordinate measuring machine (Helmel	No
04.	Inc, USA)	110
65.	Micro hardness tester FM700	No
66.	Perthometer	No
67.	Auto Collimator	No
68.	Dynamic balancing machine	No
69.	Turbo charged CI Engine	No
70.	Industrial CT Scanner (GE)	No
71.	Rankine Cycler (Turbine technologies, USA)	No

#### B. Equipment available at BIT Mesra, Ranchi

#### **SOLAR ENERGY LAB.:**

- 1. Solar water heating system
- 2. Solar distillation plant
- 3. Mechanical pyranograph
- 4. Solar power meter
- 5. Photo-Voltaic cell
- 6. Pump driven by PVC (0.5 hp)
- 7. Plain bed solar collector
- 8. Packed bed solar collector
- 9. Solar drier (by Blower)
- 10. Sun shine recorder
- 11.Solar cooker
- 12. Parabolic type solar collector 13. Concentrating type solar collector (Reflector or solar saffix dish by tracking
- system). 14. Solar thermal training system
- 15. Solar photovoltaic training kit
- 16. Solar power plant system

### DRAWING OFFICE:

- 1. Plane models Pentagon, Hexagon, Circular plate
  - Square pyramid, pentagonal pyramid (section type), 2. Solid models -

    - hexagonal

    - Pyramid (section type), cylinder (section type), square prism-
    - (section type), pentagonal prism, square pyramid (section type),
      - Hexagonal prism, tetrahedron, cone (section type), triangular –
      - Prism (section type), sphere, frustum of cone, truncated cone, Cube, octahedron, dodecahedron, icosahedrons, nut & bolt
    - and Foot-step bearing.
    - 3. Sliding drawer for keeping all drawing sheets
    - 4. Duplicating machine (DP-C120 Duplo)
    - 5. Blue printing machine
    - 6. Computer (1 nos.)
    - 7. Paper cutting machine.

CENTRAL CAD LAB.:
1. HP Compaq PIV Desktop - 30 nos.
2. HP PIV workstation - 19 nos.
3. Dell Xeon server - 1 no.
4. IBM Netvista Desktop - 9 nos.
5. Dell workstation - 5 nos.
6. Scanner - 1 no.
7. HP 2600n color printer - 1 no.
8. Projector HITACHI - 1 no.
9. AC 11 TON with duct - 1 no.
10.HPCJ 3050 Printer - 1 no.
ENGINEERING MECHANICS LAB.:
1. Simply supported beam
2. Funicular polygon
3. Belt friction
4. Sliding friction
5. Fly wheel
6. Worm & Worm wheel
7. Screw jack
8. Winch crab – single purchase
9. Pulley block
10.Helical spring
11.Rolling wheel.
THEORY OF MACHINES LAB.:
1. Motorized gyroscope
2. Universal vibration apparatus
3. Whirling of shaft apparatus
4. Epicyclic gear train
5. Balancing of reciprocating masses
6. Governor apparatus
7. Cam profile apparatus
8. Dell Workstation – 10 Nos.
FLUID MECHANICS AND HYDRAULIC MACHINES LAB.:
1. Triangular notch
2. Pelton turbine
3. Mouth pieces
4. Orifice meter
5. Reciprocating pump
6. Multistage centrifugal pump
7. Francis turbine
8. Modern Francis turbine
9. Johnston vertical turbine
10.Kaplan turbine
10.1Xapian turome

STRENGTH OF MATERIALS LAB.: 1. Rockwell hardness testing machine 2. Brinell hardness testing machine 3. Impact testing machine 4. Universal testing machine (25 ton) 5. Hounsfield tensometer 6. Torsion testing machine 7. Simply supported apparatus 8. Cantilever beam apparatus 9. Weighing machine 10.Bench grinding machine 11. Universal testing machine (100 ton) - not working 12. Fatigue testing machine **HEAT TRANSFER LAB.:** 1. Thermal conductivity of insulating powder 2. Heat transfer through natural convection 3. Refrigeration test rig 4. Heat transfer in forced convection 5. Heat transfer from a pin-fin (natural convection) 6. Heat transfer from pin-fin (forced convection) 7. Emissivity apparatus 8. Shell and tube heat exchanger 9. Thermal conductivity of liquid 10. Multiple effect evaporator 11. Shell and tube heat exchanger 12. Dropwise and filmwise condensation apparatus **MEASUREMENT LAB.:** 1. Gear oil pump test rig 2. Cavitation test rig

11.Metacentric height

14.Jet pump test rig.15.Hydraulic ram

16.Impact of jet on vanes

3. Centrifugal fan test

5. Optical pyrometer6. Relative humidity

9. Bernoulli's theorem

4. Pressure gauge apparatus

7. Orifice, venturimeter and rotameter test rig

8. Losses due to friction in pipe lines

12.Centre of pressure apparatus

13.Free and forced vortex apparatus

- 10. Reynolds apparatus
- 11. Flowmeter apparatus or Durley box apparatus
- 12. Thermocouple apparatus
- 13. Centrifugal blower test rig.
- 14. Axial flow fan test rig

#### I.C. ENGINE LAB.:

- 1. Peter Kirloskar diesel engine with electrical dynamometer
- 2. Producer gas plant
- 3. Textool two-stroke diesel engine
- 4. Computerized test set up of Mahindra dual fuel diesel engine with hydraulic dynamometer
- 5. Kirloskar diesel engine with electrical dynamometer
- 6. CFR Petrol engine
- 7. Single cylinder petrol engine(horizontal) with mechanical dynamometer
- 8. 6-Cylinder diesel engine
- 9. Boiler (Revotherm)
- 10.Compressor
- 11.MPFI Petrol engine (Maruti zen)
- 12. Ambassador petrol engine
- 13.2 stroke petrol engine model
- 14.2 stroke diesel engine model
- 15. Steering mechanism model
- 16.Compound steam engine
- 17. Single steam engine
- 18. Wiring diagram of electrical system of car
- 19. Magneto ignition system
- 20.Different type of values
- 21. Different type of bearings
- 22.Gear box and Clutch
- 23.4-stroke 4 cylinder petrol engine (cut section)
- 24. Cut section of carburetors
- 25. Fuel injector (cut section)
- 26. Fuel pump (cut section)
- 27.Crank shaft
- 28. Mechanical fuel pump
- 29.Cam shaft
- 30. Connecting rod
- 31. Mechanical brake system
- 32. Hydraulic brake system
- 33.Differential
- 34. Steering gear box
- 35. Steering wheel
- 36.4-stroke diesel engine
- 37.4-stroke diesel engine (single cylinder)

38. Propeller shaft 39. Single cylinder 4-stroke petrol engine 40 Gear box 41. Clutch plate 42.Dynamo 43. Piston 44. Valve guide 45.Lancashire boiler 46. Babcock Wilcox boiler 47.Gas analyzer 48. Wankel engine 49. Torque converter 50. Cut section of Tata Cummins 6-cylinder diesel engine 51. Rover gas turbine COMPUTATIONAL LAB.: 1. Dell Workstation - 10

# ANNEXURE – II (Item No.:51.04)

Award of Degree / Diploma

#### BIRLA INSTITUTE OF TECHNOLOGY, MESRA-835215, RANCHI List of Degrees to be Awarded \* in XXVI Convocation CONVOCATION - 2015

		CONVOCATION - 2015				1
4	Doctoral Dograps					
1	Doctoral Degrees	Architecture				1
	Doctor of Philosophy	SATE AND THE SECOND CONTRACTOR OF SECOND CONTRACTOR				15
	Doctor of Philosophy	Engineering				17
	Doctor of Philosophy	Management				18
	Doctor of Philosophy	Pharmacy				20
	Doctor of Philosophy	Science				9
	Doctor of Philosophy	Technology				80
-20	22 2 CM W 2 2 2 2	CERT				1
2	Master of Philosophy	Civil				5
	Master of Philosophy	Management				6
						0
_			ID**	]宋宋本	****	Total
3	Post-Graduate Degrees		ib			Total
	Master of Business Administra	tion	92	224	33	349
			88	101	11	200
	Master of Computer Application Master of Animation Design	ALD	1	3	0	4
		Automated Manufacturing System	14	1	0	15
	Master of Engineering	Computer Aided Analysis and Design	8	1	0	9
	Master of Engineering	and the second s	5	1	0	6
	Master of Engineering	Civil Electrical	25	13	0	38
	Master of Engineering	Electronics and Communication	56	12	1	69
	Master of Engineering		14	3	0	17
	Master of Engineering	Mechanical	1	0	0	1
	Master of Engineering	Chemical	10	2	0	12
	Master of Engineering	Software Engineering	8	8	2	18
	Master of Engineering	Space Engineering and Rocketry	46	17	0	63
	Master of Pharmacy	Analina Chamietes	12	2	0	14
	Master of Science	Applied Chemistry	1	1	0	2
	Master of Science	Applied Mathematics	2	3	O	5
	Master of Science	Applied Physics Biginformatics	8	2	o	10
	Master of Science		6	3	Ő	9
	Master of Science	Information Technology	1	6	O	7
	Master of Tourism Managemer	Biomedical Instrumentation	6	2	0	8
	Master of Technology		13	4	0	17
	Master of Technology	Biotechnology	61	21	9	91
	Master of Technology	Computer Science	14	1	Ó	15
	Master of Technology	Energy Technology	12	Ô	0	12
	Master of Technology	Environmental Science and Engineering	10	5	0	15
	Master of Technology	Information Security	11	0	0	11
	Master of Technology	Information Technology	9	0	0	9
	Master of Technology	Nanoscience and Nanotechnology	11	3	0	14
	Master of Technology	Remote Sensing	3	0	0	3
	Master of Technology	Scientific Computing	3,	0	0	3
	Master of Urban Planning				Total	1046
	Under Craduate Degrees		ID**	***	11****	Total
4	Under-Graduate Degrees					
	B		22	13	0	35
	Bachelor of Architecture	ration	107	25	1	133
	Bachelor of Business Administ	Tation				1

Dr. S. Padhi

Or. 5. Fauth
Controller of Examinations
Birla Institute of Technology
Mesra-835215 : (Ranchi) India

i	Bachelor of Business Economic	5	4	,Ť,	0	5
1	Bachelor of Computer Applicat	ions	48	10	3	61
1	Bachelor of Engineering	Biotechnology	27	11	1	39
1	Bachelor of Engineering	Civil	54	27	1	82
1	Bachelor of Engineering	Computer Science	174	77	7	258
	Bachelor of Engineering	Electrical and Electronics	121	74	2	197
1	Bachelor of Engineering	Electronics and Communication	177	99	11	287
g	Bachelor of Engineering	Information Technology	51	17	3	71
1	Bachelor of Engineering	Mechanical	138	49	6	193
1	Bachelor of Engineering	Chemical	19	3	0	22
1	Bachelor of Engineering	Chemical and Polymer	1.3	7	1	21
1	Bachelor of Engineering	Production	36	15	1	52
I	Bachelor of Hotel Management		0	1	0	1
1	Bachelor of Hotel Management	and Catering Technology	5	7	2	14
1	Bachelor of Pharmacy		40	8	3	51
1	Bachelor of Science	Animation and Multimedia	18	1.1	2	31
I	Bachelor of Science	Medical Laboratory Technology	16	13	1	30
ŧ	Bachelor of Science	Chemistry	3	1	0	4
Ę	Bachelor of Science	Mathematics	1	0	0	1
ŧ	Bachelor of Science	Physics	2	2	0	4
		A LL Marriage Date			Total	159
I	Diploma		ID**	less	11	Tota
(	Diploma	Medical Laboratory Technology	1	5	0	6
I	Diploma in Technology	Automobile Engineering	14	12	1	2.7
Í	Diploma in Technology	Computer Science	16	7	0	23
[	Diploma in Technology	Electrical and Electronics Engineering	22	6	0	28
	Diploma in Technology	Electronics Engineering	8	16	2	26
1	Diploma in Technology	Mechanical Engineering	19	8	0	27
	Diploma in Technology	Manufacturing Engineering	9	6	A:	16
	NUMBER OF THE PROPERTY AND ADDRESS OF THE PROPERTY OF THE PROP	Hash ruma response More Strait (ASSESS of Parties of California)			Total	153
				Grand	d Total	2877
1	DEC CATORED OF SOLE					

UPTO OCTOBER 04, 2015

.. ID : FIRST CLASS WITH DISTINCTION

\*\*\* I : FIRST CLASS
\*\*\*\* II : SECOND CLASS

Dr. S. Padhi
Controller of Examinations
Birla Institute of Technology
(Ranchi) India
(Appra-835215): (Ranchi) India

# ANNEXURE – III

(Item No. :51.06)
Staff Matters

# The following persons have resigned from the Institute due to personal reasons: RESIGNATION

SI.N.	EC	Name	Designation	Department Centre	Date of Resignation
	9690	Mr. Jogananda Goswami	Assistant Professor	BITEC - Jaipur	16.08.2012
2.	8993	Dr. Shankaracharya	Assistant Professor	Bio Engineering	31.12.2013
ပ္	8947	Mrs. Nibha Mishra	Assistant Professor	Pharmaceutical Sciences	30.09.2014
4.	8948	Mr. Arijit Basu	Assistant Professor	Pharmaceutical Sciences	30.09.2014
5.	9550	Mr. Sudhanshu Verma	Assistant Professor	ECE-Patna	10.02.2015
6.	1904	Dr. Chitra Mishra	Medical Officer (Sr.)	Dispensary	03.04.2015
7.	9940	Ms. Keka Das	Associate Lecturer	BITEC - Kolkata	01.05.2015
8.	9056	Mr. Shashi Kant Pandey	Assistant Professor	Architecture	06.05.2015
9.	10666	Mr. Manu Nayak	Sr. Technical Assistant	E.C.E.	18.05.2015
10.	10029	Mr. Saitab Sinha	Dy. Trng. & Placement Officer	Training & Placement	29.06.2015
11.	10660	Dr. Arun A. Somasundara	Associate Professor	Computer Science & Engg	30.06.2015
12.	10709	Dr. (Mrs.) Ditipriya Sinha	Assistant Professor	Computer Science & Engg	30.07.2015
13.	10704	Ms. Snehalata Purti	Assistant Professor	BITEC - Patna	01.08.2015

14.

8962

15.

9361

Mr. Amitabh Kr. Mangalam

Library & Inf. Assistant Assistant Professor Assistant Professor Assistant Professor Assistant Professor

Central Library

Computer Science & Engg

01.09.2015 19.08.2015

15.09.2015

10319 10315 10691

Dr. Ashwini A. Ranade

Physics

Chemical Engg. & Tech.

16.08.2015 12.08.2015

E.E.E.

Ms. Tanushree Roy

Dr. Radhe Shyam

Dr. Ritesh Kumar Keshri

SUPERANNUATION

SI. N	EC	Name	Designation	Department Centre Sup	Date of Superannuation
-	6806	Dr. P. C. Joshi	Professor	S.E.R.	31-May-15
2.	2318	Dr. J. K. Prasad	Prof. & Head	S.E.R.	30-Jun-15
ယ့	9063	Mr. Anil Roy	Security Guard	Security	31-Jul-15
4.	2528	Mr. Puran Mahto	Helper	BIT-STEP	31-Jul-15
5.	1822	Maj. F. Bara (Retd)	Sr. Medical Officer	Dispensary	31-Jul-15
6.	5953	Mr. Baleshwar Mahto	Peon	Pharmaceutical Sciences	31-Jul-15
7.	2537	Mr. Junesh Lakra	Jr. Mechanic	Garden Maintenance	31-Jul-15
.∞	56	Mr. Premankur Ghosh	Office Superintendent	O/o Dean (UG)	31-Aug-15
9.	10019	Col A. K. Nanda (Retd)	Dy. Registrar	General 10. Office	30-Sep-15
Π.	9398	Smt. Kismati Devi	Helper	Campus Administrator	30-Nov-15
12.	2604	Mr. Kamal Deo Yadav	Security Guard	Security	30-Nov-15
13.	2132	Mr. Digamber Jha	Workshop Superintendent	BITEC - Deoghar	30-Nov-15

14.

9618

Mr. Raghavendra Singh

Computer Operator

BITEC - Jaipur

30-Nov-15

STUDY LEAVE / EXTRA ORDINAR	
VE / EXTRA ORDIN	

Designation	STUDY LEAVE / EXTI
Department	Y LEAVE / EXTRA ORDINARY LEAVE (EOL)
Leave	

Centres

Purpose

From

Name

Mr. Chandan Kumar

Without Pay

Ms. Shipra

**Assistant Professor** 

Assistant Professor

BITEC - Patna BITEC - Patna

Study Leave Study Leave

01.07.2015

30.06.2016 31.12.2015

01.07.2015

With Pay

Dr. (Mrs.) Shruti Kohli Mr. Ranadeep Mukherjee

Assistant Professor

BITEC - Noida

Study Leave Study Leave

01.09.2015 20.07.2015

31.08.2016

19.07.2016

Study Leave

16.09.2015

21.01.2016

BITEC - Kolkata Civil & Env. Engg.

Associate Lecturer Assistant Professor

Dr. (Ms) Tanushree Bhattacharya

## ANNEXURE – IV (Item No. :51.07)

Promotions and Transfers

# FACULTY MEMBERS PROMOTED UNDER CAS

# **MAY-JUNE 2015**

37400-67000/-	10,000/-	48,110/-	Professor	•
Pay Band	AGP	Basic	Designation Basic AGP Pay Band	
		÷		

Dr. G. P. Mishra

Dr. Swastika Ganguly

Professor

46,440/ 46,440/

10,000/ 10,000/

Professor Professor

43,250/

37400-67000/-37400-67000/ 37400-67000/

Dr. Ramesh Chandra Dr. Rakesh Sinha

D: 0	BITO	Dej	
Dia Engineering DIT Magra	BIT Off Shore Campus Muscat	Department / Centre	
	at		

bio-Engineering, Bil Mesta Bio-Engineering, BIT Mesra

Pharm. Sc. & Tech., BIT Mesra

	Annexure	Transfers	9		Annexure
S. N.	S. N. Name Designation Transferred Transferred W.E.F.	Designation	Transferred From	Transferred to	W.E.F.
1.	Mr. Ritesh Kumar	Assistant Registrar	BITEC - Patna	BIT Mesra	11.05.2015

# (Item No. :51.08)

Recruitments of Faculty Members

ANNEXURE – V

# Recruitments of Faculty Members (during February-June 2015)

SI.	1	2	ω	4	رن د	6	7	∞	9	10	11	
EC	3663	3428	4805	4806	4807	4808	4809	4810	4811	4812	4139	
Name	Mr. Mrinal Kumar Pathak	Mrs. Sushma S. Kadwane	Mr. Arnab Karmakar	Dr. Radhe Shyam	Dr. Ambarish Kumar Thakur	Mr. Vikas	Mr. Manoj Kumar Vishwakarma	Mr. Ankur Agarwal	Mr. Kshetrimayum Bangkim Singh Assistant Professor	Dr. Satyabrata Adhikari	Mr. Abu Nasar Ghazali	
Designation	Assistant Professor	Assistant Professor	Assistant Professor	Assistant Professor	Assistant Professor	Assistant Professor	Assistant Professor	Assistant Professor	Assistant Professor	Assistant Professor		Assistant Professor
Department / Centres	Architecture	E.E.E.	Chemical Engg. & Tech	Chemical Engg. & Tech	Mathematics - Patna	Mechanical Engg.	ECE - Jaipur	ECE - Jaipur	Architecture	Mathematics	BITEC - Patna	
Basic Pay	BP 15,600/-	BP 15,600/-	BP 15,600/-	BP 15,600/-	BP 15,600/-	BP 15,600/-	BP 15,600/-	BP 15,600/-	BP 15,600/-	BP 15,600/-	BP 17,590/-	
LOG	05.02.2015	05.02.2015	16.02.2015	16.02.2015	18.02.2015	23.02.2015	24.02.2015	24.02.2015	26.02.2015	26.02.2015	26 02 2015	20.02.2010
Pay Band and AGP M	15600-39100/ AGP 6000	15600-39100/ AGP 6000	15600-39100/ AGP 6000	15600-39100/ AGP 6000	15600-39100/ AGP 6000	15600-39100/ AGP 6000	15600-39100/ AGP 6000	15600-39100/ AGP 6000	15600-39100/ AGP 6000	15600-39100/ AGP 6000	15600-39100/ AGP 6000	
Mode	Regular	Regular	Regular	Regular	Regular	Regular	Regular	Regular	Regular	Regular	Regular	0

18

4820

Dr. Anand Kumar Tiwari

Assistant Professor

Mathematics

BP 15,600/-

02.03.2015

15600-39100/ AGP 6000

Regular

BP 15,600/-

02.03.2015

15600-39100/ AGP 6000

Regular

Mathematics

**Assistant Professor** 

**Assistant Professor** 

Chemical Engg. & Tech

BP 15,600/-

02.03.2015

15600-39100/ AGP 6000

Regular

Chemical Engg. & Tech

BP 15,600/-

02.03.2015

15600-39100/ AGP 6000 15600-39100/ AGP 6000

Regular

Regular

Chemical Engg. & Tech

BP 15,600/-

27.02.2015

BP 15,600/-

27.02.2015

15600-39100/ AGP 6000

Regular

**Assistant Professor** 

Assistant Professor

Assistant Professor

EEE - Jaipur

16

4818

Mr. Bidhan Chandra Ruidas

17

4819

Dr. Randhir Singh

15

4817

Mr. Tapas Palai

14 13

4816

Dr. Dharmendra Pandey

4815

Mr. Saurabh Kumar

SI.	19 '	20 '	21 '	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	
EC	4821	4333	4822	4823	4824	4825	4826	4827	4828	4829	4830	4831	4077	4832	4833	4834	4835	3587A	
Name	Mr. Vikash Kumar Gupta	Ms. Tanushree Roy	Mr. Om Prakash	Dr. Partha Mondal	Dr. Rajiv Kumar	Mr. Sudip Kundu	Dr. Syeda D. Jabeen	Mrs. Payal Bhardwaj	Dr. (Mrs.) Ditipriya Sinha	Mr. Ayan Kumar Das	Ms. Akriti Nigam	Mr. Subrat Kumar Swain	Mr. Pranjal Kumar	Mr. Nilesh Kumar Rajalwal	Mr. Deepak Kumar	Mr. Mani Mohan	Mr. Nirmal Kumar	Mrs. Pratima Ekka	
Designation	Assistant Professor	Assistant Professor	Assistant Professor	Assistant Professor	Assistant Professor	Assistant Professor	Assistant Professor	Assistant Professor	Assistant Professor	Assistant Professor	Assistant Professor	Assistant Professor	Assistant Professor	Assistant Professor	Assistant Professor	Assistant Professor	Assistant Professor	Assistant Professor	
Department / Centres	E.E.E.	CSE	Mechanical Engg.	S.E.R.	S.E.R.	E.C.E.	Mathematics	ECE - Deoghar	C.S.E.	CSE - Patna	C.S.E.	E.E.E.	H.M.C.T.	E.E.E. Deoghar	E.E.E.	Civil & Env. Engg	Mechanical Engg.	H.M.C.T.	
Basic Pay	BP 15,600/-	BP 15,600/-	BP 16,250/-	BP 16,250/-	BP 16,250/-	BP 15,600/-	BP 15,600/-	BP 15,600/-	BP 15,600/-	BP 15,600/-	BP 15,600/-	BP 15,600/-	BP 15,600/-	BP 15,600/-	BP 15,600/-	BP 15,600/-	BP 15,600/-	BP 15,600/-	
POJ	02.03.2015	16.03.2015	26.03.2015	30.03.2015	31.03.2015	01.04.2015	01.04.2015	01.04.2015	07.04.2015	08.04.2015	15.04.2015	16.04.2015	28.05.2015	01.06.2015	01.06.2015	02.06.2015	08.06.2015	12.06.2015	
Pay Band and AGP N	15600-39100/ AGP 6000	15600-39100/ AGP 6000	15600-39100/ AGP 6000	15600-39100/ AGP 6000	15600-39100/ AGP 6000	15600-39100/ AGP 6000	15600-39100/ AGP 6000	15600-39100/ AGP 6000	15600-39100/ AGP 6000	15600-39100/ AGP 6000	15600-39100/ AGP 6000	15600-39100/ AGP 6000	15600-39100/ AGP 6000	15600-39100/ AGP 6000	15600-39100/ AGP 6000	15600-39100/ AGP 6000	15600-39100/ AGP 6000	15600-39100/ AGP 6000	
Mode	Regular	Regular	Regular	Regular	Regular	Regular	Regular	Regular	Regular	Regular	Regular	Regular	Regular	Regular	Regular	Regular	Regular	Regular	

39	38	SI.
3335	8 4837	SI. EC
Mr. Manish Oraon	Mr. Md. Asif Hassan	SI. EC Name Designation Department / Centres Basic
Assistant Professor	Assistant Professor	Designation
BITEC - Patna	EEE - Patna	Department / Centres
BP 15,600/-	BP 15,600/-	Basic Pay
10.09.2015	29.06.2015	DOJ
15600-39100/ AGP 6000	15600-39100/ AGP 6000	Pay DOJ Pay Band and AGP Mode
Regular	Regular	Mode

# ANNEXURE – VI

(Item No. :51.10)
Campus Placement

#### **Campus Recruitment Programme 2015-16**

(As on 16th October, 2015)

#### **Overview (Campus Placement)**

As of now, the total no. of recruiters visited the campus is 52 from across different sectors of the industry like Consulting - Analytics, Automobile, Heavy Engineering, Infrastructure, IT Product - Services, E-Commerce etc. and recruited from the BIT talent pool.

Out of the total 12 recruiters visited for the first time this year and the process yield satisfactory results.

A total of 1025 offers (in all programmes) generated as of now and several meritorious students have received multiple offers.

The Campus wise and Programme wise Placement details are as follows

	Students Eligible	Placed	Placed %	Total Offer	1st Offer	2nd Offer	3rd Offer
MESRA	891	473	53%	553	473	77	3
BE	542	386	71%	445	386	56	3
BIOTECHNOLOGY	26	16	62%	22	16	6	
CHEMICAL	17	7	41%	8	7	1	
CHEMICAL-PLASTICS & POLYMER	20	11	55%	15	11	4	
CIVIL	44	21	48%	25	21	3	1
COMPUTER SCIENCE	113	98	87%	115	98	15	2
ELECTRICAL & ELECTRONICS	54	39	72%	44	39	5	
ELECTRONICS & COMM.	110	83	75%	91	83	8	
INFORMATION TECHNOLOGY	54	41	76%	50	41	9	
MECHANICAL	88	59	67%	62	59	3	
PRODUCTION	16	11	69%	13	11	2	
MCA	40	29	73%	35	29	6	
IMSC	13	3	23%	4	3	1	
CHEMISTRY	1		0%	0			
MATHEMATICS & COMPUTING	7	3	43%	4	3	1	
PHYSICS	5		0%	0			
M.SC.	22		0%	0	1		
APPLIED CHEMISTRY	2		0%	0			
BIOTECHNOLOGY	18		0%	0			
GEOINFORMATICS	2		0%	0			
M.TECH.	75	20	27%	28	20	8	
BIOMEDICAL INSTRUMENTATION	2		0%	0			
BIOTECH	15	4	27%	4	4		
COMPUTER SCIENCE	10	3	30%	5	3	2	
ENERGY TECHNOLOGY	9	2	22%	2	2		

ENVIRONMENTAL SC. & ENGG	3		0%	0			
INFORMATION SECURITY	13	3	23%	5	3	2	
INFORMATION TECHNOLOGY	12	4	33%	7	4	3	
REMOTE SENSING	11	4	36%	5	4	1	
ME	123	28	23%	34	28	6	
AMS	2	1	50%	1	1		
CAAD	9	1	11%	1	1		
CIVIL	11		0%	0			
ELECTRICAL & ELECTRONICS	35	10	29%	11	10	1	
ELECTRONICS & COMM.	24	12	50%	17	12	5	
MECHANICAL	18	1	6%	1	1		
PRODUCTION	1		0%	0			
SOFTWARE ENGINEERING	8	3	38%	3	3		
SPACE ENGG. & ROCKETRY	15		0%	0	į.		
B.PHARM.	16		0%	0			
M.PHARM.	30		0%	0			
MBA	30	7	23%	7	7		
				0			
BITEC PATNA	250	121	48%	159	121	38	
BE	219	118	54%	156	118	38	
CIVIL	13	2	15%	2	2		
COMPUTER SCIENCE	51	40	78%	50	40	10	
ELECTRICAL & ELECTRONICS	40	21	53%	28	21	7	
ELECTRONICS & COMM.	51	37	73%	52	37	15	
INFORMATION TECHNOLOGY	22	15	68%	20	15	5	
MECHANICAL	33	1	3%	1	1		
PRODUCTION	9	2	22%	3	2	1	
M.TECH. (COMPUTER SCIENCE)	11	3	27%	3	3		
ME (ELECTRONICS & COMM.)	14		0%	0			
MBA	6		0%	0			
1				0			Topics See
BITEC DEOGHAR	160	74	46%	96	74	22	
BE	160	74	46%	96	74	22	
COMPUTER SCIENCE	34	25	74%	34	25	9	
ELECTRICAL & ELECTRONICS	35	8	23%	11	8	3	
ELECTRONICS & COMM.	45	26	58%	33	26	7	
MECHANICAL	32	12	38%	15	12	3	
PRODUCTION	14	3	21%	3	3		
				0			
BITEC JAIPUR	191	100	52%	122	100	22	
BE	138	91	66%	111	91	20	
COMPUTER SCIENCE	48	36	75%	40	36	4	
ELECTRICAL & ELECTRONICS	42	22	52%	30	22	8	
ELECTRONICS & COMM.	48	33	69%	41	33	8	
MCA	25	7	28%	9	7	2	

IMCA	7	2	29%	2	2		
MBA	1	()	0%	0			
IMBA	20		0%	0			
				0			
BITEC MUSCAT	9	6	67%	9	6	3	
BE	9	6	67%	9	6	3	
COMPUTER SCIENCE ENGG.	5	5	100%	8	5	3	
ELECTRONICS & COMM.	4	1	25%	1	1		
				0			
BITEC ALLAHABAD	29	1	3%	1	1		
M.TECH. (COMPUTER SCIENCE)	3		0%	0			
MCA	11	1	9%	1	1		
IMCA	1		0%	0			
IMBA	14		0%	0			
				0			
BITEC KOLKATA	46	14	30%	15	14	1	
M.TECH. (COMPUTER SCIENCE)	9	6	67%	7	6	1	
ME (ELECTRONICS & COMM.)	5	1	20%	1	1		
MCA	17	7	41%	7	7		
IMCA	2		0%	0		See also also also also also also also also	
MBA	1	A Williams	0%	0			
IMBA	12		0%	0			
*				0			
BITEC LALPUR	230	50	22%	58	50	8	
MCA	59	16	27%	18	16	2	
IMCA	82	31	38%	37	31	6	
MBA	4		0%	0			
IMBA	85	2	2%	2	2		
		on the second of the second of the		0			
BITEC NOIDA	89	12	13%	12	12		
M.TECH. (COMPUTER SCIENCE)	6		0%	0			
MCA	32	7	22%	7	7		X42.96.03504
IMCA	7	5	71%	5	5		
IMBA	44		0%	0			
GRAND TOTAL	1895	851	45%	1025	851	171	3

#### List of Companies visited:

Sr.	Company Name	Sector	Salary	Offers
1	Amadeus Software Labs India Pvt Ltd	IT Product	8.02	8
2	Amazon - Area manager	IT Product - E-Commerce	16	2
	Amazon Development Centre India	The same of the same of the same		5
3	Pvt. Ltd.	IT Product - E-Commerce	17.96	
4	Arcesium India Pvt. Ltd.	IT Product	16.5	2
		Engineering -	4.5	2
5	Avtec Limited	Manufacturing	4.5	1
6	Axis Bank	Banking & Finance	7.57	
7	Cognizant Technology Solutions	IT Services	3.35	286
8	CouponDunia Media Pvt Ltd	IT Product - E-Commerce	10	2
9	Cybage Software Pvt. Ltd.	IT Services	3.18	17
10	D. E. Shaw India Software Pvt. Ltd.	IT Product	16.5	1
11	Developer Group	Construction	5.33	2
12	Directi	IT Product	26.83	13
13	Ericsson India Global Service Pvt. Ltd.	Telecom & IT Services	3.45	6
14	EXL Services	Consulting - Analytics	5.25	19
		Engineering -	11 5	15
15	Fastenal	Manufacturing	11.5	
16	Flipkart Internet Private Limited	IT Product - E-Commerce Electronics &	19.75	
17	Freescale Semiconductor India Pvt Ltd	Semiconductor	10.14	3
17 18	Goldman Sachs Services (P) Ltd.	IT Product	13	11
18	Goldfildii Sacris Services (F) Eta.	Engineering - Research &		
19	Grey Orange India Pvt Ltd	Development	16	8
20	Grofers India Pvt Ltd	IT Product - E-Commerce	8	
21	Headstrong	IT Product & Services	4	19
22	Hyundai Motor India Limited	Automobile	6	2
23	IBM India Pvt Ltd	IT Services	3.15	79
24	Incture Technologies	IT Product & Services	5	1
25	Infosys	IT Services	3.15	189
26	KPMG	Consulting	4	
27	Kronos Solution India Pvt Ltd	IT Product	8.5	29
28	L&T Construction	Construction	4	
29	Mahindra Comviva	Telecom & IT Services	6	1!
30	Make My Trip	IT Product - E-Commerce	10	10
	Maruti Suzuki India Limited	Automobile	5.4	
31	Microsoft India Development Centre	IT Product	18	
32		Decision Sciences	4.5	2
33	Mu Sigma Business Solutions Pvt. Ltd	FMCG	4.5	
34	Nestlé India Ltd.	IT Product & Services	4.25	
35	Nomura Research Institute		7.5	
36	Oracle India Pvt Ltd - AppDev	IT Product	7.5	
37	Oracle India Pvt Ltd - GBU	IT Product	1.3	

39	Pricewaterhouse C	oopers	Consulting		5.5	15
40	Sapient Global Mai	rket	IT Product & Serv	ices	4.5	41
			Engineering -		7.5	1
41	Tata Metaliks Ltd.		Manufacturing		7.5 6.15	g
42	Tata Motors Ltd.		Automobile  Engineering -		6.15	
43	Tata Steel		Manufacturing		8.33	2
			Engineering -			
44	Trident Ltd.		Manufacturing		9	
45	Unisys India		IT Product & Serv	ices	6.3	1
46	Verizon Data Servi	ces India Pvt Ltd	IT Product		5.8	1
47	Vodafone India		Telcom .		3.65	1
48	Walmart Labs		IT Product - E-Cor	nmerce	17	9:
49	Wipro Technologie	S	IT Services		3 8	9.
50	Zopper	N. I. I.I.	IT Product - E-Cor		7	
51	Zostel Hospitality F		IT Product - E-Cor	nmerce	6.38	
52 53	ZS Associates India Think & Learn	PVt. Lta.	Consulting		6.38	Resul awaitin
Sr.	Name of	Sector		Propo	se Date o	of Visit
		Sector		Propo	se Date o	of Visit
Sr.	Name of	Sector IT Product		-	se Date o	
Sr. No.	Name of Recruiter	Record Control		16th (	October (7	Γest)
Sr. No.	Name of Recruiter	IT Product	ce	16th (	October (1	Γest)
<b>Sr. No.</b> 1	Name of Recruiter SAP Kuliza	IT Product	ce	16th 0	October (7	Гest) Гest)
Sr. No.  1 2 3	Name of Recruiter SAP Kuliza JP Morgan	IT Product IT Product Banking & Finan IT Product	ce Core Engineering	16th ( 16th ( 20th ( 27th t	October (7 October (7 October	Test) Test)
Sr. No.  1  2  3	Name of Recruiter SAP Kuliza JP Morgan Factset	IT Product IT Product Banking & Finan IT Product	Core Engineering	16th 0 16th 0 20th 0 27th t	October (7 October (7 October o 28th Oc	Test) Test)
Sr. No.  1 2 3 4 5	Name of Recruiter SAP Kuliza JP Morgan Factset NBC Bearing	IT Product IT Product Banking & Finan IT Product Manufacturing- Pharmaceutica Power	Core Engineering	16th 0 16th 0 20th 0 27th t 29th t	October (7 October (7 October o 28th Oc	Fest) Fest)
Sr. No.  1 2 3 4 5	Name of Recruiter SAP Kuliza JP Morgan Factset NBC Bearing Dr. Reddy	IT Product IT Product Banking & Finan IT Product Manufacturing- Pharmaceutica	Core Engineering	16th C 16th C 20th C 27th t 29th t 30th C	October (7 October October o 28th October October	Test) Test) Ctober Ctober
Sr. No.  1  2  3  4  5  6  7	Name of Recruiter  SAP  Kuliza  JP Morgan  Factset  NBC Bearing  Dr. Reddy  Leena Powertech	IT Product IT Product Banking & Finan IT Product Manufacturing- Pharmaceutica Power Electronics Se	Core Engineering  Is  miconductor &	16th C 16th C 20th C 27th t 29th t 30th C 31st C 2nd N	October (7 October October October October	Test) Test) Ctober Ctober
Sr. No.  1 2 3 4 5 6 7 8	Name of Recruiter  SAP  Kuliza  JP Morgan  Factset  NBC Bearing  Dr. Reddy  Leena Powertech  Lava International	IT Product IT Product Banking & Finan IT Product Manufacturing- Pharmaceutica Power Electronics Se Telecom	Core Engineering Is miconductor &	16th C 16th C 20th C 27th t 29th t 30th C 31st C 2nd N	October (7 October o 28th October October October	Test) Test) Ctober Ctober
Sr. No.  1 2 3 4 5 6 7 8	Name of Recruiter  SAP  Kuliza  JP Morgan  Factset  NBC Bearing  Dr. Reddy  Leena Powertech  Lava International  Indegene	IT Product IT Product Banking & Finan IT Product Manufacturing- Pharmaceutica Power Electronics Set Telecom Pharmaceutica Consulting & A	Core Engineering Is miconductor &	16th C 16th C 20th C 27th t 29th t 30th C 31st C 2nd N 3rd N	October (7 October o 28th October October October October Ovember	Test) Test) Ctober Ctober
Sr. No.  1 2 3 4 5 6 7 8 9 10	Name of Recruiter  SAP  Kuliza  JP Morgan  Factset  NBC Bearing  Dr. Reddy  Leena Powertech  Lava International  Indegene  Stellium	IT Product IT Product Banking & Finan IT Product Manufacturing- Pharmaceutica Power Electronics Se Telecom Pharmaceutica Consulting & A Manufacturing-	Core Engineering Is miconductor & Ils Inalytics	16th C 16th C 20th C 27th t 29th t 30th C 31st C 2nd N 3rd N 3rd N 4th N	October (7 October o 28th October October October October Ovember ovember	Test) Test) Ctober Ctober
Sr. No.  1 2 3 4 5 6 7 8 9 10 11	Name of Recruiter  SAP  Kuliza  JP Morgan  Factset  NBC Bearing  Dr. Reddy  Leena Powertech  Lava International  Indegene  Stellium  Tega Industries	IT Product IT Product Banking & Finan IT Product Manufacturing- Pharmaceutica Power Electronics Se Telecom Pharmaceutica Consulting & A Manufacturing-	Core Engineering  Is  miconductor &  Ils  Inalytics  Core Engineering  Core Engineering	16th C 16th C 20th C 27th t 29th t 30th C 31st C 2nd N 3rd N 3rd N 4th N 5th N	October (7 October October October October October Ovember ovember ovember	rest) rest) ctober ctober
Sr. No.  1 2 3 4 5 6 7 8 9 10 11 12	Name of Recruiter  SAP  Kuliza  JP Morgan  Factset  NBC Bearing  Dr. Reddy  Leena Powertech  Lava International  Indegene  Stellium  Tega Industries  Exide Ltd	IT Product IT Product Banking & Finan IT Product Manufacturing- Pharmaceutica Power Electronics Se Telecom Pharmaceutica Consulting & A Manufacturing- Manufacturing-	Core Engineering  Is  miconductor &  Ils  Inalytics  Core Engineering  Core Engineering	16th C 20th C 27th t 29th t 30th C 31st C 2nd N 3rd N 3rd N 4th N 5th N	October (7 October (7 October o 28th October October October Ovember ovember ovember ovember	rest) rest) ctober ctober

#### **Compensation Details**

Maximum Salary: 26.83 lac per annum

Average Salary :

8.3 lac per annum

#### Internship Opportunities generated during 2015-16

Company Name	No. of Students
Amazon	6
Flipkart	2
Goldman Sachs	9
Kronos	2
Zostel Hospitality	4
Nomura	5
Metalsa	2

#### Other Activities:

Numerous training activities have been conducted at BIT Mesra for the students to focus on different avenues of their growth and development. These include activities in the form of training sessions, mock test, seminars and more. Given below is a brief listing of the same.

- 1. 23rd July, 2015: Focus Academy Career Enhancement GD and PI sessions for MBA final year by Mr. Chandan James (associate Trainer, FACE).
- 2. 24th July, 2015: Tata Consultancy Services' Seminar on Internet-a-Thing delivered by Mr. Arijit Mukherjee (Senior Scientist R&D; Innovation Lab) which was attended by about a 100 students.
- 3. 28th July, 2015: Infosys Seminar was conducted by Mr. Biswa Bhushan (Talent Acquisition, Infosys) in the form of an HR Talk.
- 4. 29th July to 3rd August, 2015: Swaashtya Consulting, Bangalore GD and PI sessions along with a resume building workshop was organized. It was a workshop on body language, voice modulation, Fillers, interview questions, attire, etc.

Discussion (GD) and Personal Interview (PI) skills. 1st and 2nd August, 2015: A PAN-BIT assessment process AMCAT was conducted 6. by Aspiring Minds for all final year UG & PG Students was organized by the T&P Division in association with Aspiring Minds. 694 final year students appeared on Day 1 and 381 appeared on Day 2. The test was designed to expose final year students to

common aptitude and technical tests vociferously used by recruiters to shortlist

students. Besides Quantitative Aptitude, Logical Reasoning, Data Interpretation, and

CDP Sessions were organized by the T&P Division in association with B-Factory,

Ranchi. The sessions were meticulously designed to work on students' Group

- Verbal Ability, two sections on technical knowledge were also mandatory.
- BIT, Mesra awarded as: Amcat top 10% colleges in India excelled in Amcat.
- 22nd August to 23 August, 2015: Placement Workshop by Wipro conducted by 8.

Ms. Sindhuja (Strategic Leadership Development Team in Wipro) on

- b. English & Communication Skills
- c. Facing Group Discussions & Interviews d. Career Opportunities for Engineering Students
- Creativity and Innovation f.
- Over 265 students attended the workshop. 25th August, 2015: Placement Workshop by IBM conducted by Ms. Anjana Dixit

e. Gender Sensitivity workshops

Interpersonal & Soft skills

a.

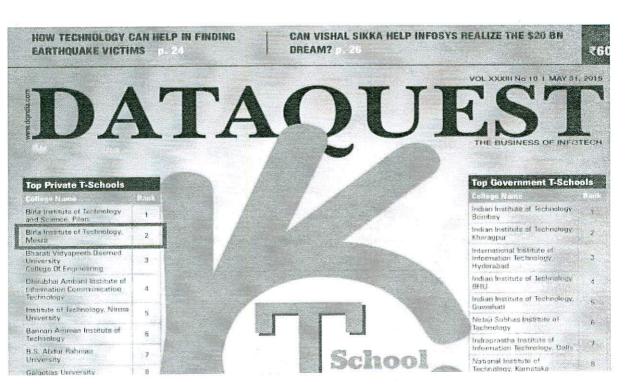
9.

- (IBM Client Innovation) for preparing campus recruitment and to be aware what are the technology trends and their readiness level.
- 10. 27th August to 28th August, 2015: Placement Workshop by Cognizant conducted by Ms. Unnati (HR, Cognizant) for Pre Placement Talk and Mock Interview
- preparation for UG and PG students. 11. Allen Gate Series: An MoU was signed between ALLEN Career Institute and BIT,
- Mesra for a GATE Online Test Series. A total of 154 students registered from BIT Mesra and its extension centers.
- 12. Ericsson: Initial round of discussion with Ericsson for MoU.

13. 28th September, 2015: IIT Madras Outreach Programme was conducted in which Dr. Nandita Das Gupta, Professor, Dept. of Electrical Engg., Prof. Dhiman Chatterjee, Dept. of Mech. Engg., Prof. Somnath Chanda Roy, Dept. of Physics visited BIT Mesra to Explain pre final and final year students about various research programme of IIT,Madras and, in particular, the new research avenues that have opened up in recent times.

#### All-India Rankings:

1. DATQUEST ranked BIT Mesra at number 2 among the private engineering colleges in India in its DATAQUEST Issue of May 31, 2015 (pg. 36).



2. Outlook ranked BIT Mesra 20th in its 2015 ranking, 3 up from last year's 23rd in its July

#### 6, 2015 Magazine Issue.

Rank 2015 Rank 2014	Name of the institute	P; Pvt G: Govt	City	Selection process (227)	Academia extense (214)	Personality devt & Indi interface (173)	Infrastructure (206)	Placement (180)	Diversit 9699 (1.000)
F2 14	NIT	G	Rourkela	172.0	160.5	124.5	164.4	142.0	765.4
E-1 13	THE	þ	Hyderabad	151.5	153.8	144.8	162.2	150.8	763.1
12	NSIT	G	Delhi	151.0	154.4	134.9	163.5	154.4	7.58.2
18	College of Engineering	G	Pune	162.7	与原题	135.8	144.3	131.2	是725.1
13 15	PSG College of Technology	P	Coimbatore	143.1	148.9	137.1	161.8	133.2	Carry 12 days from
7. 17	IIIT	G	Allahabad	157.1	144.6	111.6	153.9	153.5	720.6
16	JNTUH College of Engineering	G	Hyderabad	156.9	148.6	122.6	135.9	148.6	712.6
O NE	Delhi Technological University	G	Defhi	132.0	FG G	118.0	140.4	157 3	Arecon Fair E.
20 23	BIT	Р	Ranchi	178.5	151.3	109.4	160.4	109.1	708.5
4 19	Manipal Institute of Technology	P	Manipal	163.0	146.0	133.3	145.7	111.0	599 0
72 20	NII	G	Hamirpur	167.0	417	111.5	141.8	133.0	694.6
Zi 24	MS Ramaiah Institute of Technology	Р	Bangatore	149.0	131.7	120.5	141,7	120.3	665.1
E 24 Z 32	NIT	G	Durgapur	162.0	163.7	105.0	126.3	102.9	660.9
25 21	Thapar University	P	Patiala	140.1	超過121.9	125.9	145.9	118.8	652.6
25 25		G	Dhanbad	167.5	BEALES AT	102.1	140.8	104.3	6.47.1
26		G	Nagpur	139.4	126.4	101.7	160.5	112.5	640.5
23 29		G	Mysore	140.4	129.3	117.0	135.4	112.8	634 9
29 28		P	Ahmedabad	144.0	131.8	105.0	125.9	122.9	629.6
30	A CONTRACTOR OF THE PROPERTY O	G	Indore	133.9	122.6	103.2	139.7	110.9	610.2

### 3. India Today ranked BIT Mesra at number 18 in its 2015 list of rankings. Below is an image from its website

(http://indiatoday.intoday.in/bestcolleges/2015/readyrecnor\_directory\_list.jsp?Y=2015&ST=E ngg).

15	M S Ramaiah Institute of Technology - Bangalore	MSR Nagar, MSRIT Post,Bangalore,560054.0	080-23608445/23603122	www.msnt.edu	1962	1267	Entrance Test
16	Manipal Institute of Technology - Manipal	Udupi District Kamataka.Manipal,576104.0	0820-2922323	www.manipal.edu	1960	1888	res
17	Thapar Institute of Engineering and Technology - Patiala	Patiala,Punjab.147004.0	0175-2393021/2393521	www.thapar.edu	1959	1230	Entrance Test
18	Birla Institute of Technology, Mesra(BITS, Mesra) - Ranchi	PO Mesra Dist. Ranchi , Jharkhand,Ranchi,835215.0	0651-2275444/2275896	www.bitmesra.ac.in	1955	750	Entrance Test
19	Nirma institute of Technology, Nirma University - Ahmedabad	S.G. Highway,Ahmedabad,382481 0	02717-null	www.nimrauni.ac.in	1995	840	
20	Faculty of Engineering & Technology Jamia Millia Islamia - Delhi	Jamia Nagar New Delhi, 110025.0	011-26985831/26981261	www.Jml.ac.in	1989	347	*

4. Times Engineering Survey pinned BIT Mesra t number 20 in its 2015 rankings.

Below is an image taken from its website: http://www.times-engineering-survey.com/

13	Indian Institute of Information Technology (IIIT), Pune
14	BMS College of Engineering, Bangalore
15	IIT-BHU - Varanasi
16	Amity School of Engineering & Technology, Noida
17	Veermata Jijabai Technological Institute (VJTI), Mumbai
18	Vishwakarma Institute of Technology (VIT), Pune
19	Netaji Subhas Institute of Technology (NSIT), Delhi
20	BIT, Mesra - Ranchi
21	Manipal Institute of Technology, Manipal
22	NIT Warangal
23	Jawaharlal Nehru Technological University (JNTU), Hyderabad
24	NIT Surathkal

## ANNEXURE – VII (Item No.:51.11)

Student Activities

#### LIST OF EVENTS HELD DURING APRIL 2015 - OCTOBER 2015

#### SOCIAL / CULTURAL EVENTS

- Swachhata Abhiyan was organised by NSS and other social clubs during September
   October 2015
- Department of Creative Arts organized its annual fest cum end semester examination for the students of creative arts with the theme "Bharat Vishwaguru"
- UNESQUO organised Debate and quiz during September 5 -6, 2015
- EPAC , BIT, Mesra Chapter organised Environment Awareness Program cum Quiz on 2nd September 2015
- Blood Donation camp was organised on October 10, 2015 by NSS

#### TECHNICAL EVENTS

- Team Srijan stood 3rd in the national level rules quiz organised by Formula Student India on June 22, 2015
- Exhibition on Robotics was organised on 15<sup>th</sup> August -2015
- SAE India Student Chapter BIT, Mesra organised seminar on August 20, 2015
- Workshop on PLC & SCADA organised during September 2 14, 2015
- Workshop on C / C++ and Java Programming Language organised during September 2015
   Cyber Students Association of Department of CSE organised MICROSOFT AZURE
- on 29<sup>th</sup> September 2015

   Pantheon The Inter University Technical Festival was organised during October 2-
- 4, 2015 in which 150 teams participated.

#### SPORTS

 Inter Hostel Table Tennis and Football Tournaments were organised during August -September, 2015

#### VISIT OF TEAMS FROM BIT MESRA TO OTHER INSTITUTE / UNIVERSITY

- Karan Dhawan, Roll No.- BARCH/10030/2012 was winner, AIU, ALL INDIA National Youth Festival in Photography, held at DAV, Indore
- Team Firebolt represented the Institute for the BAJA SAE India 2015 virtual round during August 1st-2nd, Gandhinagar, Gujrat
- Girls ' only Badminton team of BIT Mesra participated in Badminton tournament organised at IIT Kanpur and won Gold Medal during September -October, 2015

#### VISIT OF TEAMS FROM OTHER INSTITUTE / UNIVERSITY TO BIT MESRA

 Team of IIT Kharaghpur, ISM Dhanbad, NIFFT, BHU,NIT Jamshedpur, BE College Sibpur, UCET Hazaribagh, BIT off campus Lalpur, Allahabad, Kolkata, Patna and Deoghar participated in Technical Festival Pantheon during October 2-4, 2015

# ANNEXURE – VIII (Item No. :51.12)

Operation of Bank Accounts

	•		
SI. NO.	Name of Bank & Branch Account No.	Group 'A'	Group 'B'
1.)	HDFC Bank Ltd. Ranchi A/c No- 01502320000714	(a) Dr M.K. Mishra (b) Dr D. Sasmal (c) Dr A.P. Krishna	(a) Dr B.K. Singh (b) Mrs. Archana Mukherjee (c) Sri H. S. Sharma
2.)	Indian Overseas Bank, Ranchi A/C no- CD - 2729	(a) Dr M.K. Mishra (b) Dr D. Sasmal (c) Dr A.P. Krishna	(a) Dr B.K. Singh (b) Mrs. Archana Mukherjee (c) Sri H. S. Sharma
3 \	ICICI Bank Itd. Ranchi	(a) Dr M.K. Mishra	(a) Dr B.K. Singh

(c) Dr A.P. Krishna

(a) Dr M.K. Mishra

(c) Dr A.P. Krishna

(b) Dr D. Sasmal

(b) Mrs. Archana Mukherjee

(c) Sri H. S. Sharma

(a) Dr B.K. Singh

(a) Dr B.K. Singh

(c) Sri H. S. Sharma

(c) Sri H. S. Sharma

(a) Dr B.K. Singh

(c) Sri H. S. Sharma

(a) Dr B.K. Singh

(c) Sri H. S. Sharma

ICICI Bank Ltd. Ranchi

A/c No- 017501015718

A/c No- 017501006789

IDBI Bank Ltd. Ranchi

UCO Bank Mesra

A/c No- 063102000007801

A/c No- 01670200000002

UCO Bank Mesra (Project A/c)

A/c No- 01670110045787

ICICI Bank Ltd. (Govt A/c) Ranchi

3.)

4.)

5.)

6.)

7.)

**OPREATION OF BANK ACCOUNTS** 

<u>SNO</u>	Name of Bank & Branch Account No.	Group 'A'	Group 'B'
8.)	Indian Overseas Bank, Ranchi A/C no- CD - 1445	<ul><li>(a) Dr M.K. Mishra</li><li>(b) Dr D. Sasmal</li><li>(c) Dr A.P. Krishna</li></ul>	<ul><li>(a) Dr B.K. Singh</li><li>(b) Mrs. Archana Mukherjee</li><li>(c) Sri H. S. Sharma</li></ul>
9.)	Indian Overseas Bank, Ranchi Dollar A/c No –EFC-CD-04	<ul><li>(a) Sri S. S. Jajodia</li><li>(b) Dr D. Sasmal</li><li>(c) Dr M.K. Mishra</li></ul>	(a) Dr B.K. Singh (b) Mrs. Archana Mukherjee (c) Sri H. S. Sharma
10.)	State Bank of India, Ranchi A/c No-11048999130	<ul><li>(a) Dr M.K. Mishra</li><li>(b) Dr D. Sasmal</li><li>(c) Dr A.P. Krishna</li></ul>	<ul><li>(a) Dr B.K. Singh</li><li>(b) Mrs. Archana Mukherjee</li><li>(c) Sri H. S. Sharma</li></ul>
11.)	IDBI Bank, Ranchi (Dollar A/c) A/c No –0063102000033901	<ul><li>(a) Sri S. S. Jajodia</li><li>(b) Sri Yogesh Goenka</li><li>(c) Dr M.K. Mishra</li></ul>	(a) Dr B.K. Singh (b) Mrs. Archana Mukherjee (c) Sri H. S. Sharma
12.)	IDBI Bank Ltd., Ranchi A/c No-0063102000033859	<ul><li>(a) Dr M.K. Mishra</li><li>(b) Dr D. Sasmal</li><li>(c) Dr A.P. Krishna</li></ul>	(a) Dr B.K. Singh (b) Mrs. Archana Mukherjee (c) Sri H. S. Sharma
13.)	State Bank of India, Mesra A/c No-34947560340	<ul><li>(a) Dr M.K. Mishra</li><li>(b) Dr D. Sasmal</li><li>(c) Dr A.P. Krishna</li></ul>	<ul><li>(a) Dr B.K. Singh</li><li>(b) Mrs. Archana Mukherjee</li><li>(c) Sri H. S. Sharma</li></ul>
14.)	State Bank of India-2, Mesra A/c No-31774971812	<ul><li>(a) Dr M.K. Mishra</li><li>(b) Dr D. Sasmal</li><li>(c) Dr A.P. Krishna</li></ul>	<ul><li>(a) Dr B.K. Singh</li><li>(b) Mrs. Archana Mukherjee</li><li>(c) Sri H. S. Sharma</li></ul>
15.)	UCO Bank, Lalpur, Ranchi A/C 20730200000031	(a) Dr M.K. Mishra (b) Dr A.N Jha (c ) Dr A.P. Krishna	<ul><li>(a) Dr B.K. Singh</li><li>(b) Mrs Archana Mukherjee</li><li>(c) Sri H. S. Sharma</li></ul>

ONS	Name of Bank & Branch Account No.	Group 'A'	Group 'B'
16.)	HDFC Bank Ltd. Deoghar A/c No- 07592320000082	<ul><li>(a) Dr M.K. Mishra</li><li>(b) Dr J.K Prasad</li><li>(c) Dr A.P. Krishna</li></ul>	<ul><li>(a) Mrs. Archana Mukherjee</li><li>(b) Sri Arun Khandelwal</li><li>(c) Sri H.S. Sharma</li></ul>
17.)	ICICI Bank Ltd., Deoghar A/c No- 062905000508	<ul><li>(a) Dr M.K. Mishra</li><li>(b) Dr J. K. Prasad</li><li>(c) Dr. A.P. Krishna</li></ul>	<ul><li>(a) Mrs. Archana Mukherjee</li><li>(b) Sri Arun Khandelwal</li><li>(c) Sri H.S. Sharma</li></ul>
18.)	State Bank of India, Deoghar A/c No-30252393657	<ul><li>(a) Dr M.K. Mishra</li><li>(b) Dr J. K. Prasad</li><li>(c) Dr A.P. Krishna</li></ul>	(a) Mrs. Archana Mukherjee (b) Sri Arun Khandelwal (c) Sri H. S. Sharma