# सीनेट की चौदहर्वी बैठक का कार्यवृत्तMINUTES OF THE $14^{TH}$ MEETING OF THE SENATE $5^{TH}$ December 2005



भारतीय प्रौद्योगिकी संस्थान रूड़की रूड़की - २४७ ६६७ (भारत) INDIAN INSTITUTE OF TECHNOLOGY ROORKEE ROORKEE – 247 667 (INDIA)



#### भारतीय प्रौद्योगिकी संस्थान रुइकी

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No.IITR/MS/14th Senate (12/2005)/641 Dated: 17th December 2005

#### All Members of the Senate Indian Institute of Technology Roorkee

Subject: Minutes of the 14<sup>th</sup> Meeting of the Senate held on 5<sup>th</sup> December 2005 in the Senate Hall of the Institute.

Sir,

Enclosed herewith please find a copy of the Minutes of the 14<sup>th</sup> meeting of the Senate of this Institute held on 5<sup>th</sup> December 2005 at 11.00 A.M. in the Senate Hall, for your perusal. Your comments, if any, on the minutes may please be sent within 15 days.

Yours faithfully,

(A. K. Srivastava) Lt. Col. (Retd.)

Registrar

Encl: As above

# INDIAN INSTITUTE OF TECHNOLOGY, ROORKEE ROORKEE-247 667 (INDIA)



Minutes of the  $14^{\rm th}$  Meeting of the Senate held on  $5^{\rm th}$  December 2005 at 11.00 A.M. in the Senate Hall of the Institute.

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### Minutes of the 14<sup>th</sup> Meeting of the Senate held on 5<sup>th</sup> December 2005 at 11.00 A.M. in the Senate Hall of the Institute.

#### The following were present: -

- 1. Prof. Prem Vrat, Director
- Chairman

- 2. Prof. R. Shankar
- 3. Prof. G. S. Randhawa
- 4. Prof. B.M.J. Periera
- 5. Prof. I.M. Mishra
- 6. Prof. Bikash Mohanty
- 7. Prof. Shri Chand
- 8. Prof. A.K. Jain (Chemistry Department)
- 9. Prof. G. Bhattacharjee
- 10. Prof. R.N. Goyal
- 11. Prof. V.K. Gupta (Chemistry Department)
- 12. Prof. Anil Kumar
- 13. Prof. A.K. Singh
- 14. Prof. Arvind Kumar
- 15. Prof. H.C. Mehndiratta
- 16. Prof. N.M. Bhandari
- 17. Prof. V.K. Gupta (Civil Engineering)
- 18. Prof. S.S. Jain
- 19. Prof. (Mrs) Renu Bhargava
- 20. Prof. U.C. Kothyari
- 21. Prof. P.K. Garg
- 22. Prof. Ashwani Kumar
- 23. Prof. H. R. Wason
- 24. Prof. H. Sinvhal
- 25. Prof. A.K. Jain (Earth Sciences)
- 26. Prof. V.N. Singh
- 27. Prof. A.K. Awasthi
- 28. Prof. A.K. Pachauri
- 29. Prof. H.K. Verma
- 30. Prof. R.N. Mishra
- 31. Prof. H.O. Gupta
- 32. Prof. S.P. Gupta
- 33. Prof. Vinod Kumar
- 34. Prof. S. Mukherjee
- 35. Prof. R.P. Agarwal
- 36. Prof. (Ms) Kum Kum Garg
- 37. Prof. S.N. Sinha
- 38. Prof. Padam Kumar
- 39. Prof. Pashupati Jha
- 40. Prof. (Ms) Asha Kapoor
- 41. Prof. (Ms) Renu Rastogi

- 42. Prof. A.K. Ray
- 43. Prof. A.K. Singh
- 44. Prof. J.S. Upadhyay
- 45. Prof. V.P. Singh
- 46. Prof. G. S. Srivastava
- 47. Prof. (Mrs.) R.R. Bhargava
- 48. Prof. S.P. Sharma
- 49. Prof. (Mrs) Rama Bhargava
- 50. Prof. R.C. Mittal
- 51. Prof. T.R. Gulati
- 52. Prof. P.N. Agarwal
- 53. Prof. Roshan Lal
- 54. Prof. N.K. Mehta
- 55. Prof. S.C. Solanki
- 56. Prof. Pradeep Kumar
- 57. Prof. Satish C. Sharma
- 58. Prof. Dinesh Kumar
- 59. Prof. P.K. Jain
- 60. Prof. Satya Prakash
- 61. Prof. S. Ray
- 62. Prof. P.K. Ghosh
- 63. Prof. (Mrs) Vijaya Agarwala
- 64. Prof. Ishwar Singh
- 65. Prof. Sushil Auluck
- 66. Prof. G.S. Singh
- 67. Prof. Vir Singh
- 68. Prof. Devadutta Das
- 69. Prof. Gopal Chauhan
- 70. Prof. S.K. Tripathi
- 71. Mr. Arun Kumar, Head, AHEC
- 72. Mr. R.K. Jain, Associate Dean of Students Welfare
- 73. Mr. Yogendra Singh, Librarian
- 74. Dr. R.P. Singh, Chief Warden, Ravindra Bhawan
- 75. Dr. (Mrs.) Sunita Gakkhar
- 76. Dr. Anjan Sil
- 77. Mr. Prashant Garg, Actg. Registrar

- Secretary

The Chairman welcomed the members to the 14th Meeting of the Senate and apprised the house that 02 Senators of the Institute, viz Prof. R.P. Agarwal and Prof. V.K. Tewari have been appointed as Vice-Chancellors of the Bundelkhand University, Jhansi and Uttranchal Technical University, Dehradun, respectively.

Before taking up the agenda items, the Senate thanked the undermentioned outgoing members and recorded its appreciation for their valuable contribution in the meetings of the Senate.

- 1. Prof. S. Basu, Department of Earthquake Engineering
- 2. Prof. R. Manikavasgam, Institute Instrumentation Centre
- 3. Prof. A.N. Garg, Department of Chemistry
- 4. Prof. Kailash Chandra, Institute Instrumentation Centre

The Senate also welcomed the under- mentioned new members and hoped for their valuable contribution and active participation in its functioning:

- 1. Prof. Dinesh Kumar, Department of Mechanical & Indl. Engineering
- 2. Prof. P.K. Jain, Department of Mechanical & Indl. Engineering
- 3. Prof. S. Mukherjee, Department of Electrical Engineering
- 4. Sri R.K. Jain, Associate Dean of Students Welfare

The Senate recorded the apologies received from the following members for not attending the meeting:

- 1. Prof. G.L. Asawa, Civil Engineering Department
- 2. Prof. Jagdish Rai, Physics Department
- 3. Prof. H. Sinvhal, Department of Earth Sciences
- 4. Dr. Devi Singh, Lucknow
- 5. Prof. N.K. Gupta, IIT Delhi
- 6. Prof. Karmeshu, JNU, New Delhi
- 7. Prof. M.K. Mittal, Department of Civil Engineering

The agenda was then taken up.

### 14.1.1 To confirm the minutes of the 13<sup>th</sup> Meeting of the Senate held on 22<sup>nd</sup> August 2005.

At the outset, the Senate considered the comments received from Prof. J.P. Singh, Department of Management Studies on item No. 13.2.13 of the 13<sup>th</sup> Meeting of the Senate held on 22<sup>nd</sup> August 2005. The Senate noted the comments of Prof. J.P.Singh and observed that he was not actually present in that meeting. The Senate reiterated its decision in the said meeting. After that, the minutes of the 13<sup>th</sup> Meeting of the Senate held on 22<sup>nd</sup> August 2005 were confirmed.

14.1.2 To receive a report on the actions taken to implement the decisions taken by the Senate in its 13<sup>th</sup> Meeting held on 22<sup>nd</sup> August 2005.

The Senate noted that the actions have been taken on the decisions taken by the Senate in its 13<sup>th</sup> Meeting held on 22<sup>nd</sup> August 2005.

#### ITEMS FOR CONSIDERATION:

14.2.1 To consider the revised Teaching Schemes and Detailed Syllabi of existing M. Tech. programmes along with new M.Tech. programme (CAD, CAM and Robotics) in the Mechanical & Industrial Engineering Department.

At the outset, Prof. R.N. Goyal, Dean, PGS&R briefed the house about the revised teaching schemes and detailed syllabi of existing M.Tech. programmes and highlighted the salient features. Prof. Pradeep Kumar, Department of Mechanical & Industrial Engineering clarified that laboratory component will be evolved in due course in some of the proposed courses requiring laboratory training. The Senate after deliberation decided that the revised Teaching Schemes and detailed Syllabi of existing M. Tech. programmes along with the new M.Tech. programme (CAD, CAM and Robotics) as given in the Agenda Note be accepted in principle with the provision that the department should submit modified teaching schemes and same be again debated in the meeting of the BPGS&R to enrich the programmes with more practical components with reference to need and nature of the courses without distributing the total credits specially in major electives. Latest edition of the recommended books should also be included. The Director and Chairman of the Senate was authorised by the Senate to approve the recommendations of the BPGS&R regarding modified syllabi on behalf of the Senate. The action so taken be reported to the Senate in its next meeting.

14.2.2 To consider renaming the Degrees of Master of Technology in Metallurgical Engineering and Master of Technology in Mechanical Engineering.

After discussion, the Senate decided that the issue for renaming the Degrees of Master of Technology in Metallurgical Engineering and Master of Technology in Mechanical Engineering be re-looked in the meeting of the BPGS&R in light

of course contents, structure and specialization of programme. The possibility of giving name of programme in M.Tech. degree should also be considered.

### 14.2.3 To consider uniform remuneration for thesis evaluation at IITs.

The Senate on the recommendations of the Directors of IIT's approved the under-mentioned rates of remuneration be paid to external Examiners (excluding faculty of IITR):

Programme		Remuneration	(Rs.)
For Ph.D. thesis	Indian	Evaluation of	3000/-
evaluation	Examiner	thesis	
		Conduct of viva	1000/-
		voce Exam.	
	Foreign		US\$ 200
	Examiner	*	
M.Tech.	Rs. 300/-	per candidate su	bject to a
dissertation of one	minimum o	of Rs. 1500/	_
year duration.			

Efforts should be made to conduct the viva-voce examination of M.Tech. students having similar or related areas by one examiner scheduling them together on the same day for convenience.

# 14.2.4 To consider change of load of the paper PH-615 (Simulation and Computer Application) of Physics Department.

As considered and recommended by the BPGS&R, the Senate decided that it is approved in spirit but the loading of the paper PH-615 (Simulation and Computer Application) be changed from 3-1-0 to 3-0-2 with the provison that the course title "Simulation and Computer Application" be modified to "Simulation and Computer Applications in Physics" (refer Appendix 'A').

The Senate further decided that the detailed course contents in reference to the above changed name be worked out by the Department of Physics and re-submitted to BPGS&R.

# 14.2.5 To consider the proposal for making the Pre-Ph.D. courses MA-901 as optional.

As considered and recommended by the BPGS&R, the Senate decided that the course MA-901: Real and Complex Analysis Pre-Ph.D. course for the Research Scholars of the Department of Mathematics be removed from the category of compulsory courses and be made optional.

#### 14.2.6 To consider the students of other academic Institutes/ Universities as casual students for a maximum period of one semester.

As considered and recommended by the BPGS&R, the Senate decided as under:

- (a) The entry of such students be made more stringent by evolving appropriate selection criterion through DRC so that IIT brand is not misused or diluted.
- (b) The registration of the student be approved by the concerned Deans.
- (c) Casual students should only be admitted for course work.
  Thesis or project work be excluded for Casual
  Students, with the exception of these students who join
  under some MOUs with provisions enabling it.
- (d) The Casual Students should not be admitted in the Institute for Summer Training.
- (e) Casual students concept be agreed for both UG and PG courses.
- (f) A maximum of 10% of the total regular students in B.Tech. and 20% students in M.Tech. can be admitted as casual students in a course.
- (g) The quality of the Casual Students be checked by the concerned Department.
- (h) Full fee for the semester be charged irrespective of number of courses taken.

# 14.2.7 To consider the Academic Calendar for the Spring Semester of the session 2005-2006. (January 2, 2006 to July 17, 2006)

After discussion, the Senate decided that the Academic Calendar for the Spring Semester excluding all the preparatory course/ examination schedule of the session 2005-2006 (January 2, 2006 to July 17, 2006) as given at **Appendix 'B'** be approved with minor changes. A separate calendar for preparatory course be prepared. From the next year, Thomso and Cognizance may be organised in different Semesters. Further, the 1st, 2nd mid-term and final examination be organised giving a gap of 6, 5 and 4 weeks between them. The Chairman, Senate may approve the calendar on behalf of the Senate.

It was also suggested that from the next session spring semester examinations be finished in April end.

# 14.2.8 To consider the constitution of the Institute Standing Committee to look into the cases of Unfair-means and Plagiarism.

As considered and recommended by the Board of Undergraduate Studies, the under-mentioned constitution of Institute Standing Committee to look into the cases of Unfairmeans and Plagiarism be approved:

1. Deans, UGS/PGS&R	(as the case may be)
2. Dean(PGS&R)/Dean (UGS)	Member
3. Dean of Students Welfare	Member
4. Head of the concerned	Member

Department
5. Three Senate nominees Member

Further, the Senate authorized the Director and Chairman, Senate to nominate 03 Senate nominees to this Institute Standing Committee on behalf of the Senate.

# 14.2.9 To consider the revised proposal of the department of Humanities & Social Sciences to introduce the Institute Elective IHS-36: Sanskrit Language.

After discussion, the Senate decided that the revised proposal of the department of Humanities & Social Sciences to introduce the Institute Elective IHS-36: Sanskrit Language as given at **Appendix 'C'** be approved with the following minor changes:

- 1. Word Sandhi Samas be mentioned at Sl. No. 3 and Bhagwad Geeta be mentioned only in the suggested books.
- 2. The Objectives be made more crisp by deleting the first two sentences.
- 3. The term dead language be deleted.

# 14.2.10 To consider the proposal of the department of Mechanical & Industrial Engineering to offer postgraduate courses as electives to the undergraduate students.

As considered and recommended by the Board of Undergraduate Studies, the Senate decided that the proposal of the department of Mechanical & Industrial Engineering to offer the postgraduate courses as elective to the undergraduate students in line with the policy as given at **Appendix 'D'**, be approved.

# 14.2.11 To consider Academic Curriculum, methodology, fee structure, intake, Budget, etc. of the proposed Part Time MBA programme at DPT, Saharanpur as requested by the DPT.

As considered and recommended by the Board Undergraduate Studies, the Senate decided that the Academic Curriculum, methodology, fee structure, intake, Budget, etc. of the proposed Part Time MBA programme at DPT, Saharanpur as given in the agenda note be accepted in principle as Phase-I subject to the following:

- 1. The course would be fully self-financed.
- 2. No subsidy be given by the Institute.

- 3. One faculty from the main campus, Department of Management Studies be appointed as Course Coordinator at DPT, Saharanpur campus. The MBA programme will be affiliated with the Department of Management Studies and will be conducted at the Saharanpur Campus.
- 4. The restriction on entry-level age be removed.
- 5. There should be a screening test/interview of the candidates with minimum passing marks.
- 6. Maximum Intake of the students should be 30.
- 7. The academic standard would be at par with the existing MBA programme at the main campus. For common courses in a semester, same MTE, ETE papers will be given.
- 8. The examination and paper setting etc. would be the same as in the existing MBA programme for the common courses.
- 9. The curriculum structure, as borrowed from the Department of Management Studies be reviewed after taking inputs from the Industries.

The curriculum structure for Phase-II be reviewed and again placed before the Senate through the BPGS&R. Any faculty from the DPT willing to re-orient himself will be allowed to do so and may become a Joint Faculty.

# 14.2.12 To consider the proposal of Prof. & Head, Department of Humanities & Social Sciences to introduce a new Institute Elective Course Introduction to "Intellectual Property Rights".

As considered and recommended by the Board of Undergraduate Studies, the Senate decided that the proposal of Prof. & Head, Department of Humanities & Social Sciences to introduce a new Institute Elective Course, Introduction to "Intellectual Property Rights" as given at **Appendix 'E'** be approved. It has also been suggested that a book be written or compiled having the IPR aspects, rules etc. to serve as suitable text for this course. For this purpose, necessary provisions available in QIP be availed.

### 14.2.13 To consider the format of Transcript to be used by the Institute.

As considered and recommended by the BUGS, the Senate approved the format of Transcript to be used by the Institute for the students who have passed out from the session 2004-05 as given at **Appendix 'F'** with the under-mentioned fee and condition:

- 1. For current students for original copy and 10 additional copies, if asked on the same address
- 2. For old students: (to be sent only at one address)
  - (a) Graduates residing in India:

Rs. 2000/-

(b) Graduates residing in Foreign Countries

US\$ 100

- 3. The charges be reviewed after one year.
- 4. The transcript be sent to the students within 02 days after receipt of the fee from the students.
- 5. The word Signature of the Officer on Special Duty be replaced by Signature of authorised signatory.

### 14.2.14 To consider the status of Proficiencies / Extra Curricular Activities w.e.f 2006-07

After discussion, the Senate decided that the views of the Students Affair Council (SAC) be invited on the issue. The Director (Chairman Senate) be authorised to approve the issue on behalf of the Senate.

### 14.2.15 To consider the course structure of 05 years Integrated M.Sc./M.Tech. Programmes.

As considered and recommended by the BUGS, the Senate decided that the course structure of 05 years Integrated M.Sc./M.Tech. Programme as given at **Appendix 'G'** be approved with the provision that the requirement of "IT Skills" be shifted from Humanities and Social Sciences to Basic Sciences. The course be effective from the July 2006.

The Chemistry course CY-151 (Autumn Semester) and CY-152 (Spring Semester) may be split in two semesters as:

Autumn Semester				
	L	T	P	Credit
Chemistry	3	1	0	4
Spring Semester				•
Chemistry (Theory)	3	1	0	4
Chemistry (Lab)	0	0	4	2

14.2.16 To consider the recommendations of Board SRIC in its meeting held on 5.9.2005 (item No. 10.3.1 & 10.3.2) and 17.12.2004 (item No. 8.3.2 & 8.3.3), which have been further recommended by Executive Committee of the Senate (ECS) meeting held on 21 Oct., 2005 (item Nos. ECS-3 to ECS-6) regarding review of the rates of Institute Share in Consultancy Projects besides other allied issues related to consultancy rules & guidelines as well as rules for PDF.

Prof. Gopal Chauhan, Dean SRIC made a detailed presentation on the proposed consultancy rules and guidelines as well as rules for PDF. He clarified the questions raised by the members on the floor. After discussion, the Senate decided that the recommendations of the Board SRIC and by ECS, on revised consultancy rules and guidelines be accepted with some minor modifications as suggested on the floor by Senators like transfer of PCs and mobiles to PIs after certain number of years w.r.t. their book value and Dean SRIC was authorised to make necessary editorial changes as pointed out on the floor. The modified consultancy rules and guidelines as well as rules for PDF after incorporating the changes as given at **Appendix 'H'**, be implemented after approval of the Board of Governors. The projects which are already approved or negotiated or under negotiation may be undertaken as per existing rules provided PIs' furnish information in respect of such projects along with the documentary evidence of undergoing negotiations.

Further decided that the PDF component will be again reviewed after one year from the date of implementation of new Consultancy Rules.

# 14.2.17 To consider the academic activities to be developed at the proposed GREATER NOIDA Extension Centre of IIT Roorkee.

Prof. S. Ray, Dean Administration briefed the House about the academic activities to be developed at the proposed GREATER NOIDA Extension Centre and highlighted the salient features. He clarified the entire questions raised by the members on the floor. After discussion, the Senate decided that the academic activities to be developed at the proposed GREATER NOIDA Extension Centre as given in the agenda note be approved.

### 14.2.18 To consider the Concept Paper for establishment of a Centre of Nanotechnology.

Prof. Vijaya Agarwal, Department of Metallurgical & Materials Engineering made a detailed presentation on the Concept Paper for establishment of a multidisciplinary Centre of Nanotechnology. After discussion, the Senate decided that only a Concept Paper for establishment of a multidisciplinary Centre of Nanotechnology be accepted with the following observations:

- 1. The Centre can not be supported by MHRD funds.
- 2. The Centre should generate its own resources and budget. Any manpower required for the purpose should also be managed by the funds so generated by this Centre.
- 3. Outside IIT people/ experts be invited to debate for this Centre. The major funding from an agency other than HRD funding be attracted.

# 14.2.19 To consider the Concept of establishment of a Centre for Disaster Mitigation and Management

Prof. S.P. Gupta, Professor-in-Charge Planning made a detailed presentation on the Concept of establishment of a multidisciplinary Centre for Disaster Mitigation and Management before the Senate. He clarified all the questions raised by the members on the floor. After discussion, the Senate decided that the Concept of establishment of a multidisciplinary Centre for Disaster Mitigation and Management in the line of the BOG resolution No.BG/40/2004 dated 19th June 2004 be

accepted. The same be placed before the Board of Governors for specific approval.

# 14.2.20 To consider the panel of Experts who shall act as Nominees of the Senate for faculty selections.

After protracted discussion, the Senate decided that the Director himself will vet and approve the same on behalf of the Senate as the Senate authorised the Director (Chairman, Senate) to approve the panel. The members of the Senate, who wish to send their suggestions with regard to any discrepancy, inconsistencies, additions, deletions etc., may send the same to the Director upto 26th December 2005. The existing panel will continue till a new panel is finalised.

# 14.2.21 Presentation by Prof. Padam Kumar, Chairman, JEE-2004 on the participation of IITR in the conduct of JEE-2004.

A detailed presentation on the conduct of JEE-2004 examination was made by Prof. Padam Kumar, Chairman, JEE-2004 before the Senate. Prof. Padam Kumar was felicitated by the Senators for the excellent conduct of the Examination JEE-2004. The Senators also gave the under-mentioned suggestions:

- 1. Institute should try to bridge the gap and try to attract the top AIR rankers.
- 2. The Institute should have more flexibility in course electives to attract more candidates to avoid vacant seats.
- 3. All the departments need to re-look in totality to prove the best in the IIT system.

# 14.3.1 To report the presentation of Khosla National Award-2005 of Rs. 51,000/-, a Citation and a Golod Medal to Prof. D.P. Kothari, Director (I/C), IIT Delhi on the occasion of the 5<sup>th</sup> Annual Convocation of the Institute.

Noted. The Senate suggested that being a prestigious award of the Institute, there is a need to enhance its visibility. The invitation for nomination for Khosla National Award be put on the Institute Website, permanently.

14.3.2 To report the approval of the Director (Chairman, Senate) to the minimum educational qualifications for admission to JAM-2006, IIT Roorkee Zone.

Noted.

14.3.3 To report that the Director has approved the proposal of Mr. L.P.Sinha, Managing Director, BHPC, Sone Bhawan, Birchand Patel Marg, Patna-800 001 for the institution of two nos. "Bihar Hydro Awards' of Rs. 10,000/- each per annum.

Noted.

14.3.4 To report the Senate that the Chairman, Senate had approved the mercy appeals of the students whose registration were terminated during the Spring Semester 2004-05.

Noted.

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

### INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

E OF DEPARTMENT Physics
Subject Code: PH-615 Course Title: Simulation and Computer Application in Physics
Contact Hours: L: 3 ; T: 0 ; P: 2
Examination Duration (Hrs):
Relative Weight age: CW PRS 2 5 MTF 2 5 ETE 5 0 PRE
Credits: O 4 6. Semester
Autumn Spring Both
Pre-requisite: NIL 8. Subject Area: PG - 12
Objective of Course: This course is designed to provide the basic knowledge of systems and modeling of system for simulation and optimization using digital computers.
Details of Course:
]

S. No.	Particulars	Contact Hours
$\langle \mathbf{I}_{i(i)} \rangle$	Introduction to simulation: Need and advantages of simulation. Impact of digital computers on simulation.	02
<b>2</b> (2).	Concept of a system and its components: Entities, attributes and activities. Environment of a system various activities affecting the state of a system	03
3	System modeling: Various types of models. Static and dynamic models, Physical and mathematical models. Principals used in modeling.	05
4	Techniques of simulation: System analysis, system design and system postulation.  Simulation of continuous and discrete systems. Simulation of deterministic and stochastic systems. Probability concepts in simulation. Simulation of queuing and inventory systems.  Numerical techniques used in simulation. Simulation using digital computers	16
5	Optimization: Need and advantages of optimization. Impact of digital computers on optimization.	2
6	Optimization techniques: Optimality criteria. Single and multi variable optimization techniques. Elementary discussion of various algorithms used for optimization. Optimization using digital computers.	10
7	Introduction to standard commercial software packages for simulation and optimization.	4
	Total	42

#### 11. Suggested Books

Sl. No.	Name of Books/Authors	Year of Publication
1	System Simulation - Geoffery Gorden	2001
2	System Simulation with digital computers - Narsingh Deo	2000
3	Optimization for engineering Design - Kalyanmoy Deb	2000
4	Using Simulink - The Mathworks	2003

#### Appendix 'B' Item No.14.2.7

#### INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

#### ACADEMIC CALENDAR FOR THE PERIOD FROM JANUARY 2, 2006 TO JULY 17, 2006

#### Spring Semester-Session 2005-2006

	Spring Semester-Session 2003-2006		•
1.	Institute reopens for the Spring Semester	January 02, 2006	Monday
2.	Registration for all Courses	January 02, 2006	Monday
3.	Classes begin for all Courses	January 03, 2006	Tuesday
4.	Subject Registration of Ph. D. students (New Entrants)	January 17, 2006	Tuesday
5.	Thomso-2006	February 9-11,	Thu Sat.
		2006	
6.	All HODS to send to OSD (UGS) the details of Institute Electives to be run by the	February 10, 2006	Friday
	departments in Autumn Semester of 2006-2007 session		
7.	GATE EXAM	February 12, 2006	Sunday
8.	Mid Term Examination - I for all UG/PG students	Feb.16-17, 2006	Thu. & Fri.
9.	OSD (UGS) to intimate to the departments and the student, the names of the Institute	February 23, 2006	Thursday
	Electives to be run by various departments in Autumn Semester of 2006-07	·	ļ
10.	Last date for withdrawal of courses	February 24, 2006	Friday
11.	Last date for display of attendance record of students falling short of minimum attendance requirement during the middle of semester	February 27, 2006	Monday
12.	SCIENCE DAY	February 28, 2006	Tuesday
13.	Hobbies Club - Annual Hobbies Exhibition	March 3-5, 2006	Fri. to Sun.
14.	Date of registration of Institute Electives by U.G. students for Autumn Semester of	March 04-05,	Sat.& Sun.
	2006-2007 session.	2006	
15.	Intimation to parents/guardians of students having short attendance by OSD	March 06, 2006	Monday
	(UGS)/A.R. (PGS&R)		
16.	Semester Break (For students only)	March 13-17, 2006	Mon. to Fri.
17.	Information to HODs by OSD (UGS) about Institute Electives to be run in Autumn Semester of 2006-2007	March 24, 2006	Friday
18.	JAM – 2006 Exam,	March 26, 2006	Sunday
19.	COGNIZANCE - 2006	March 31 to April	Fri. to Sun.
		02, 2006	
20.	Joint Entrance Examination for UG courses 2006	April 09, 2006	Sunday
21.	Mid Term Examination - II for all U.G/P.G. students	April 12 & 13,	Wed. & Thu.
		2006	
22.	Notification of seating Plan and Exam Schedule for all classes including common papers).	April 13, 2006	Thursday
23.	Filling of response forms by all UG/PG students in the respective departments during the week	April 17-21, 2006	Monday-Friday
24.	Provisional-Subject Registration of UG/PG students for Autumn Semester of 2006-	April 17-18, 2006	Mon. & Tue.
ļ	2007 session		
25.	Last date for submission of proficiency grades by Chief Advisors/O.C.N.C.C./D.O.S.(W) TO OSD (UGS)	April 28, 2006	Friday
26.	Chairman DRC to invite and receive the topic for P.G. dissertation/Project/Seminar from faculty members	April 28, 2006	Friday
27.	Last date of teaching for all UG/PG classes	May 01, 2006	Monday
29.	Notices to students' Notice Board regarding shortage of attendance	May 01, 2006	Monday
29.	Issue of blank Progress Forms for Ph.D. students by the P.G. Section to respective	May 01, 2006	Monday
j	departments/centres		•
!			

30.	Action by OSD (UGS)/A.R.(PGS&R) to ascertain that the detained students do not appear in End Term Exam.	May 03, 2006	Wednesday
31.	*End Term Exam. for all classes	May 04 to 12, 2006	Thu. to Fri.
32.	TECHNOLOGY DAY	May 11, 2006	Thursday
33.	Last date of submission of applications for change of branch during 2006-2007	May 12, 2006	Friday
	session by B.Tech. Ist year students to OSD (UGS),	-	
34.	Allotment of topic of dissertation to students	May 15, 2006	Monday
35.	Last date to show the Answer Script of End Term Examination to the students	May 15, 2006	Monday
36.	Moderation of Grades by the Grade Moderation Committee	May 16, 2006	Tuesday
37.	Display of Grades for all examinations	May 17, 2006	Wednesday
38.	Last date for sending of Grades to OSD (UGS)/A.R.(PGS&R) for All UG/PG classes	May 19, 2006	Friday
	(within seven days from the date of Exam.) except Viva-Voce Exam. for B. Tech. final		
	year project.		
39.	Viva voce exam. for B.Tech. Final Year Project	May 22 & 23,	Mon. & Tue.
		2006	
40.	Declaration of result except B. Tech. final year.	May 26, 2006	Friday
41.	B.Tech. IV yr Project Grades to be submitted to OSD (UGS) by departments	May 26, 2006	Friday
42.	Result Committee Meeting for B.Tech. Final Year Classes	May 30, 2006	Tuesday
43.	Declaration of Results of B.Tech. Final Yr. classes	May 31, 2006	Wednesday
44.	Summer Vacations (For vacation staff)	June 01 to	Thu. To Sun.
		July 16, 2006	-
45.	Submission of Progress Reports by the Ph.D. students to Departments/Centres	June 15, 2005	Thursday
46.	Joint Entrance Examination Counselling for B.Tech. /B.Arch. Programmes	June 20 to 23, 2006	Tue. To Fri.
47.	Joint Entrance Examination Arch./Design Aptitude test	June 23, 2006	Friday
48.	Last date for submission of M.Tech. / M.Arch./ MURP / M.Phil / M.Sc. & M.Tech.(ES) dissertation.	June 30, 2006	Friday

\* The Practical Examination may be organised by the departments during the last practical engagement of a particular batch/class before April 28, 2006
\*\*\* Copies be shown to students within 3 days of Examination date
Note: - Heads of Department are requested to please plan the functions / Seminars on Saturdays and Sundays so that the Institute is able to maintain the minimum teaching days required in a semester.

#### Summer Term for 1st & 2nd Yr B.Tech. & B.Arch. 2005-2006.

1.	Registration for Summer Term	May 19, 2006 (Friday)
2.	Beginning of Summer Term for UG Classes	May 23-July 06, 2006 (Tuesday to Thursday)
3.	Examination of Summer Term Classes	July 07-08, 2006 (Friday to Saturday)
4.	Declaration of Result	July 10, 2006 (Monday)

#### INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

#### NAME OF THE DEPT./CENTRE: HUMANITIES AND SOCIAL SCIENCES

1. 2.	Subject Code: IHS-36 Contact Hours:	Course Title: Sanskrit L:3; T: 1; P:0	Language =04
3,	Examination Duration (Hrs)	Theory 03	Practical O O
4.	Credits 0 4		*
5.	Semester	:	
	Autumn	Spring	Both
6.	Pre-requisite: Nil		

7. Objectives of Course: The course has been designed with the assumption that the student has no acquaintance whatever, with the Sanskrit language. It begins from the very basics with the purpose of enabling students to read and comprehend Sanskrit. The objective is also to emphasise that Sanskrit is not a dead language and has relevance in Artificial Intelligence/Natural Language Processing technology today.

8. Course details

S.No.	Particulars	Contact Hours
1 .	Introduction	01
2	The Alphabets, word endings Concepts of words and numbers	04
3	Sandhi-Bhagavad Geeta II Chapter or other text	03
4.	Declension and conjugation of words	03
5	Concepts of roots, verbs, tenses and moods	04
6.	Past Participles	03
7	Prefixes (Upsarg) and Suffixes (Pratyaya)	02
8.	Voice(Vacya)	03
9.	Concept of Visheshan	02
10.	Adverbs, Pronouns and cases	04
11.	Simple A. Translation	04
12.	Use of Panini's grammar in computational Linguistics	03
13.	Machine Translation Using Sanskrit grammar	06
	Total	42

#### Text and References:

Summary of Lecture classes will be supplied in the class which will be made available generally at the end of a chosen topic and also of the Sanskrit Texts.

#### 14. Suggested Books

S.No.	Name of Books/Authors	Year of Publication
	The first book of Sanskrit by R.G. Bhandarkar Published by Keshau Bhikaji Dhawale	1997
2	Sanskrit First Lesson by Dr. Ballantyne. Akhila Bharatiya Sanskrit Prishad	1962
3.	Sanskrita-Vyavahara – Sahasri Published by Samskrita Bharati – Delhi and Bangalore	2003
4.	Bhagavad Geeta II Chapter or from other Text	
5.	History of Scientific Writings in Sanskrit Literature (NCERT) edited by Prof. K.K. Mishra	2005
6.	History of Indian Literature Vol. III: Part II Scientific Literature, translated by S. Jha	1998
7.	Vaiyakaran Siddhanta Kamudi-Vol. 1-2 by Shastri P.V.N.	1989
8.	Natural Language Processing - A Paninian Perspective by A. Bharti, V. Chaitanya, R. Sangal	尹班 1995

Note: The course will be taught by the bept. of HSSA Visiting Faculty with help from the Department of E & CE.

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# Department of Mechanical and Industrial Engineering Mech. 8 I. I. T. ROORKEE

Mech. 2

Existing UG Elective Courses (From Production & Industrial Engg.) that should be Dropped	Existing/Proposed PG Courses (Core or Elective) that should made Open Elective to the UG Students [Semester]		
·	MI-575: Product Design and Development [Spring]		
MI-438: Computer Integrated Manufacturing System	MI-501: Computer Aided Manufacturing [Autumn]		
MI-442: Machine Tool Design and Numerical Control	MI-576: Machine Tool Design and Numerical Control [Spring]		
MI-443: Maintenance Management	MI-574: Maintenance Management [Autumn]		
	MI-516: Artificial Intelligence [Spring]		
MI-472: Mechatronics	MI-563: Mechatronics [Spring]		

MI-559: Computer Aided Design	[Autumn]	James John Miller
MI-502: Robotics and Control	[Autumn]	
MI-567: Computer Graphics	[Spring]	a way to
MI-568: Advanced Robotics	[Spring]	
MI-577: Industrial Automation	[Spring]	
	:	
	· ·	The state of the s

Both

YES

Spring

1.	Subject Code: IHS	Cour	se Title: Introduct	ion to Intellectual	Property Right
2.	Contact Hours: L-3;	T-1;	P-0		
3.	Examination Duration (Hrs.)	Theor	y <b>03</b>	Practical	0 0
4.	Relative Weightage: CWS	25	PRS 00 0	MTE 25	ETE <b>50</b>

7. Pre-requisite: Nil

04

Credits:

5.

8. Subject Area: Any branch of Engineering, Science and Humanities

6. Semester

9. Objective of Course: This is an introductory course to familiarize students and researchers with the various instruments of Intellectual Property Rights protection in order to facilitate their use for professional achievement.

Autumn

#### 10. Details of Course:

S. No.	Particulars	Contact Hours
1.	Fundamentals and Objective of Intellectual Property Protection: Document & Classification / Patent / Copyright / Trademark / Geographical indications / Industrial design / Rights of publicity / Moral rights / IP on the internet / Fair use	4
2.	Significance of international agreement and treaties on Intellectual Property Protection: Group of treaties on basic standards of IP protection / Global protection system treaties / Classification treaties/ WTO and GATT agreements / WIPO, PCT and TRIPS treaties	8
3.	Economics of Intellectual Property Protection: Investment / Return / Relocation / Globalization of markets / IP and world trade	4
4.	Patent Laws and regulations: Protection of IPR / Indian patent laws and amendments / International patent laws / Implications of international trade law/Innovation, monopoly, software and free speech	9
5.	Applications of Intellectual Property Protection:  Patent applicability of a work / Patentablity analysis / Patent search / Patent writing/ drafting / Patent filing/ Procedure for obtaining patents / Protection of rights / Protection of claim and interest	8
6.	Knowledge base for obtaining and use of patent:  IPR information technology / services of IPR agencies / dealing with user organization.	5
7.	Case Studies	4
	Total	42

#### Tutorial:

- 1. Patent search using different sites (NISCAIR / Patent office)
- 2. Patent writing (Exercise on example)
- 3. Copyright and Trademark (Exercise on example)
- 4. Protection of Intellectual Property Rights (Case studies)

#### Suggested Books:

- 1. Charles E.F. Rickett & T.G.W. Telfer: International Perspectives on Consumers' Access to Justice, 1ed. 2003 (Cambridge University Press) UK.
- 2. Mark J. Davision: The Legal Protection of Databases, 1ed. 2003 (Cambridge University Press) UK.
- 3. Universal Law Publ.: Patent Act 1970 along with Patent Rules 2003, (Universal Law Pub. Co. Pvt. Ltd.) 2005 New Delhi.
- 4. Universal Law Publ.: The Copy Right Act 1957 (Universal Law Pub. Co. Pvt. Ltd.) 2005 New Delhi.
- 5. Commercial Law Publ.: The Trade Marks Act 1999 with Trade Mark's Rules 2002 (Commercial Law Pub.) 2004 New Delhi.
- 6. Merlin Stone, Alison Bond & Bryan Foss: Consumer Insight, 1ed. 2004 (Kogan Page) UK.
- 7. Peter Villiers: Human Rights A practical guide to Managers 1ed 2001 (Kogan Page) UK.
- 8. Graham Dutfield: Intellectual Property Biogenetic Resources & Traditional Knowledge, 1ed. 2004 (Earthscan) UK.
- 9. Curtis Cook: Patents, Profits & Power How intellectual property rules the economy, 1ed. 2002 (Kogan Page) UK.
- 10. John Gurnsey: Copyright Theft, 1995 (Aslib Gower) England.
- 11. Universal Law Publ.: Intellectual Property Laws, 2005 (Universal Law Pub. Co. Pvt. Ltd.) New Delhi.
- 12. Sender, Marta, P: Cross-Border enforcement of patent rights, 1ed. 2002 (Oxford U. Press) UK.
- 13. Cornish, William: Cases & Materials on Intellectual Property, 4ed 2003 (Thomson) London.
- 14. Bainbridge, David: Intellectual Property 5ed 2002 (Pearson) Pearson Education Ltd.
- 15. Alikhan, S. & Mashelkar, R: Intellectual Property & Competitive Strategies in the 21<sup>st</sup> Century, 2004. (Kluwer) The Hague, The Netherlands.
- 16. Basics of Patent by Narayanan
- 17. Basics of Patent by Raghubir Singh
- 18. Suggested website www.wipo.org

#### **Introduction to Intellectual Property Rights**

Fundamentals and objective of intellectual property protection concerning document & classification, patent, copyright, trademark, geographical indications, industrial design, rights of publicity, moral rights, IP on the internet and fair use; Significance of international agreement and treaties on intellectual property protection includes treaties on basic standards, global protection system classification, WIPO, PCT and TRIPS and WTO and GATT agreements; Economics of intellectual property protection related to investment, return, relocation, globalization of markets and world trade; Patent Laws and regulations about protection of IPR, Indian patent laws and amendments, International patent laws, Implications of international trade law, innovation, monopoly, software and free speech; Applications of Intellectual Property Protection involves patent applicability, patentablity analysis, patent search, patent writing-drafting-filing, patent obtaining, protection of rights, protection of claim and interest; Knowledge base for obtaining and use of patent through IPR information technology, services of IPR agencies and dealing with user organization.



# Appendix 'F' INDIAN INSTITUTE OF TECHNOLOGY ROOKREENo. 14.2.13

### OFFICIAL TRANSCRIPT (Statement of Earned Credits & Grades)

ENROLLMENT NO. OF THE STUDENT: <Enrollment No.>

NAME: <Student Name>

PROGRAMME: BACHELOR OF TECHNOLOGY <Branch>

SESSION 2002-0	3	SEMESTER Autumn		<u> </u>
SUBJECT CODE	SUBJEC	T TITLE	GRADE	CREDIT
PH-101	PHYSICS	S-1	Α	5
MI-101	BASIC M	ANUFACTURING PROCESSES	Α	3
CE-101	ENGINE	ERING GRAPHICS-I	B+	3
CY-101	CHEMIS'	rry	A+	5
EE-101	ELECTR	CAL SCIENCE	B+	4
MA-101	MATHEM	IATICS-I	A+	4
EARNED CREDITS	24		S	GPA 9.08
REG. CREDITS	24	TOTAL EARNED CREDITS 24	C	GPA 9.08

SESSION 2002-0	3 SEMESTER Spring			
SUBJECT CODE	SUBJECT TITLE	GRADE	CREDIT	
BT-101	FUNDAMENTALS OF BIOTECHNOLOGY	A+	2	
IC-102	COMPUTER SYSTEMS & PROGRAMMING	Α	4	
HS-101	ENGLISH (BASICVADVANCE)	Α Α	4	
MI-106	ENGINEERING GRAPHICS -II	В	3	
EC-102	ELECTRONICS	Α	4	
PH-102	PHYSICS-II	Α	5	
MA-102	MATHEMATICS-II	B+	4	
PR-501	N.C.C.	С	2	
PR-104	FOOTBALL	C+	2	
DISP	DISCIPLINE	A+	2	
EARNED CREDITS	32	S	GPA 8.38	
REG. CREDITS	32 TOTAL EARNED CREDITS 56	C	GPA 8.68	

SESSION 2003-0-	4	SEMESTER Autumn		
SUBJECT CODE	SUBJEC	T TITLE	GRADE	CREDIT
IC-203B	ELECTR	IC & MEGNETIC MATERIALS	A+	4
EC-221	DATA ST	RUCTURES	Α	5
EC-251	ELECTR	ONIC DEVICES & CIRCUITS	A+	5
IC-205	SYSTEM	ENGINEERING	A+	4
MA-201	MATHEN	MATICS III	A+	4
EC-271	OBJECT	ORIENTED PROGRAMMING (LABORATORY)	A	. 2
EARNED CREDITS	24		S	GPA 9.71
REG. CREDITS	24	TOTAL EARNED CREDITS 80	.0	GPA 8.99

SESSION 2003-04	4 SEMESTER Spring		
SUBJECT CODE	SUBJECT TITLE	GRADE (	CREDIT
EC-222	COMPUTER ARCHITECTURE & ORGANISATION	Α	4
EC-204	DIGITAL ELECTRONICS	В	5
HS-201	TECHNICAL COMMUNICATION	B+	4
EC-202	SIGNALS AND SYSTEMS	A+	5
IC-201	NUMERICAL METHODS	A+	4
EC-262	ELECTRONICS (LABORATORY)	Α	2
PR-202	PHOTOGRAPHY	Α	2
DISP	DISCIPLINE	A+	2
EARNED CREDITS	S 28	SGP	A 8.89
REG. CREDITS	28 TOTAL EARNED CREDITS 108	CGP	A 8.96

SESSION 2004-0	5 SEMESTER Autumn		
SUBJECT CODE	SUBJECT TITLE	GRADE	CREDIT
EC-351	SEMICONDUCTOR DEVICES & TECHNOLOGY	Α	3
EC-311	PRINCIPLES OF DIGITAL COMMUNICATION	A+	. 5
EC-341	ENGINEERING ELECTROMAGNETICS	A	4
BM-301	MANAGEMENT CONCEPTS AND PRACTICE	A+	4
EC-303	MICROPROCESSORS & INTERFACING	A+	5
EC-301	LINEAR ICS AND APPLICATIONS	Α	4
EC-361	IC APPLICATIONS (LABORATORY)	В	2



#### INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

#### OFFICIAL TRANSCRIPT

(Statement of Earned Credits & Grades)

ENROLLMENT NO. OF THE STUDENT:

<Enrollment No>

NAME: <Name>

PROGRAMME: BACHELOR OF TECHNOLOGY

EARNED CREDITS 27 REG. CREDITS 27

**TOTAL EARNED CREDITS** 135

SGPA 9.37 CGPA 9.04

SESSION 2004-0	5 SEMESTER Spring	
SUBJECT CODE	SUBJECT TITLE	GRADE CREDIT
EC-326	COMPUTER NETWORKS	A 4'
EC-312	COMMUNICATION SYSTEMS & TECHNIQUES	A+ 5
EC-362	COMMUNICATION (LABORATORY)	A 2
EC-342	ANTENNAS AND WAVE PROPAGATION	A+ 4
EC-392	GROUP DISCUSSION	8+ 2
HS-301	ECONOMICS	A+ 4
IMA-17	MATHEMATICAL ASPECTS OF COMPUTER	B+ 4
PR-202	PHOTOGRAPHY	A 0
DISP	DISCIPLINE	A+ 2
EARNED CREDITS	<b>3</b> 27	SGPA 9.33
REG. CREDITS	27 TOTAL EARNED CREDITS 162	CGPA 9.09

STUDENT HAS NOT YET COMPLETED THE PROGRAMME/COMPLETED THE PROGRAMME

Evaluation and Grading: The student is graded for his/her academic performance on a ten point scale in the following manner:

Outstanding - A+(10), Excellent - A(9), Very Good - B+(8), Good - B(7), Average - C+(6), Below Average - C(5), Marginal - D(4), Poor - E(2), Very Poor - F(0), Audit Pass - AP, Audit Fail - AF, Incomplete Course - I, Incomplete Project/Dissertation X, Satisfactory completion of Dissertation - S,Unsatisfactory Dissertation - U, Withdrawl - W, Non-completion of course requirement and/or training - Z

Mimimum CGPA for awarding B.Tech. Degree = 5.0

**IIT Roorkee** 

Dated:

Signature of Officer on Special Duty

Considered the recommendation of the ECS for the propped 5-year Integrated M.Sc./M.Tech. programmes in sciences and the recommendations of the concerned DFBs on the course structure for the first two years (4 semesters) of the programme and resolved that

(a) The proposed programmes under phase-I to start the following M.Sc./M.Tech. programmes from the session 2005-06 be recommended to the senate for its consideration.

(i)	M.Sc. (Physics)	To be run by Deptt. of Physics
(ii)	M.Sc. (Chemistry)	Deptt. of Chemistry
(iii)	M.Sc. ( Applied Mathematics)	Deptt. of Maths
(iv)	M.Tech. (Applied Geology)	Deptt. of Earth sciences
(v)	M.Tech. (Applied Geophysics)	Deptt. of Earth sciences
(vi)	M.Tech. (Polymer Science & Technology	y) DPT, Saharanpur Campus

- (a) The salient features of the above programmes and the teaching scheme for the first two years of the 5-year programme are given in Annexure A.1 (A.1 to A.1.3).
- (b) The salient features and the scheme of teaching for the first two years be recommended to the senate for its consideration and approval. A non-credit-course on "Human Values in Science and Technology " be offered to the students in the I year (second semester).
- (c) The syllabi of the courses and the teaching and examination scheme for all the 5 years of the programme should be submitted to the Dean, UGS by the end of December 2005, for their consideration by the BUGS.
- (d) That the deptts. should, in general, propose a new programme only when an existing programme is phased out.
- (e) Arising out of the discussion, it was felt that an additional fee may be charged from the students of those classes of the existing and proposed programmes, who are to undergo compulsory field training. It was resolved to request the DOSW to formulate a proposal in this regard.

#### Proposed 5 - year Integrated M.Sc./M.Tech. Programmes

#### Phase - I

#### (A) M.Sc. Programmes

(i) Physics Deptt. of Physics

(ii) Chemistry Deptt. of Chemistry

(iii) Applied Mathematics Deptt. of Mathematics

#### (B). M.Tech. Programmes

(i) Applied Geology Deptt. of Earth Sciences.

(ii) Applied Geophysics Deptt. of Earth Sciences.

(iii) Polymer Science & Technology Deptt. of Paper Technology

#### Phase - II

(A) M.Sc. (Economics): Deptt. of Humanities & Social Sciences

(B) M.Tech (Pharmaceutical Science & Molecular Design): Saharanpur Campus The programmes of phase – II shall be started after due deliberation and discussion.

#### **Salient Features**

- (i) The programmes of the phase i shall start in 2006-07.
- (ii) First two years shall be common for all the programmes excepting that of M.Tech. (Applied Geology), where only first year shall be common with other programmes.
- (iii) The 3 year M.Tech. (Applied Geology), and M.Tech-(Applied Geophysics) programmes shall be phased out after 2 years, i.e. from the session 2008-9
- (iv) Institute Core of 12 Credits of Humanities, Social Sciences and Management Courses and 12 credits of General Sciences shall be taught to all the students across all the 5 year M.Sc./M.Tech. programmes during the first two years.
- (v) The Credit structure follows the consensual rationalized credit structure of the IIT system. The total credits of the 5-years programme shall be 205-228.

- (vi) A student earning a minimum of 205 credits in the 5 years integrated M.Sc. /M.Tech. Programmes may be admitted to the 5 year M.Sc. or M.Tech., degree, as the case may be.
- (vii) The intake of students in each programme will be 20 per year. Lateral entry at the 4<sup>th</sup> year to the 2 year M.Sc. in Physics, Applied Mathematics and Chemistry and at the 3<sup>rd</sup> year to the 3-year M. Tech. in Applied Geology and Applied Geophysics shall be allowed subject to the condition that the total strength of the students in the integrated and post B.Sc. programmes shall remain the same as those of the existing post B.Sc. M.Sc./M.Tech. programmes.
- (viii) The proposed programmes of phase I will require 120 additional seats in the Bhawans: 100 seats in the Roorkee Campus and 20 seats in the Saharanpur Campus. Arrangements for the same be ensured.
- (ix) The general curricular structure and credits for these programmes are given in Annexure (A.1.1).
- (x) The teaching scheme for the first two years of the 5-year programme of M.Sc./M.Tech. excepting M.Tech App. Geology is given in Annexure (A.1.2).
- (xi) The teaching scheme for the II year of the 5-year M.Tech. (Applied Geology) programme is given in Annexure (A.1.3).

#### GENERAL CURRICULAR STRUCTURE & CREDITS FOR THE PROPOSED

5- Year integrated M.Sc./M. Tech. Science Programmes

(A)	Common courses for the First Fo	ur semester	(Two Ye	ears) Institute
<i>(</i> **\	core courses			•
(i)	Humanities & Social Sciences	4.0.0	•	Credits
•	Technical Communication	1-0-2	#	02
•	Management Concepts & Practices	2-1-0	=	03
•	Economics + IPR	2-1-0	=	03
•	Behavioral Sciences	2-0-0	=	02
•	IT Skills	1-0-2	==	02
			Total	12
(ii)	General Sciences		\$	
BS.	Environmental Studies	2-0-0	=	02
BS.	Introduction to Geosciences	2-1-0	=	03
BS.	Fundamentals of Biotechnology	2-0-0	=	02
	Computer Systems & Programming	2-0-2	==	03
ESA.	Computer Aided Graphics	1-0-2	=	02
			Total	12
(iii)	Basic Sciences		•	
•	Physics			
•	Chemistry > 14-15 Credits per	Semester		56-64
•	Mathematics J		1 · 1	
			Total	: 80-88
(B)	Specific programme courses for the	e Next Six Se	emesters	(3 Years)
(i)	Specific Programme Courses (Sugges			
	(i) Departmental Core (Including Grou	p Discussion	& Viva)	64-68
	(ii) Department Electives			20-22
		•	Total	: 84-90
(ii)	Institute Electives			09-12
(iii)	Seminar			04
(iv)	Project			04-06
(v)	Dissertation			12-16
			Total	: 29-38
(vi)	Others			
	Discipline			06
	NCC/NSS			02
	NSO (Proficiency)			04
			Total	12

GRAND TOTAL of CREDITS: 20

Annexure A.1.2.2
Proposed Curriculum Structure for Five Year Integrated M.Sc. /
M.Tech. Programmes (ExceptingM.Tech. App. Geology)

S.No.	Course No. & title	Sub.	Contact Hours			Credits	
		Area					
	FIRST SEMESTER		L	T	Р	***************************************	
1	Technical communication	IC	1	0	2	2	
2.	Environmental studies	IC	2	1	0	3	
3	Computer Systems & Programming	IC	2	0	2	3	
4	Ma-151 Basic Mathematics I	BS	3	1	0	4	
5	PH-111 Mechanics, Oscillations and	BS	3	1	2	5	
	Properties of Matter		}				
6	Cy-151 chemistry	BS	3,	1	3	5	
	Total Credits		1.			22	
	SECOND SEMESTER						
1 .	Introduction to Geosciences	IC.	2	1	0	3	
2	Fundamentals of Biotechnology	IC	2	0	0	2	
3	Computer Aided Graphics	IC	1	0	2	.2	
4	Ma-152 Basic Mathematics II	BS	3	1	0	4	
5	PH-112 Electrostatics, Magnetostatics	BS	3	1	2	5	
	and Tehrmodynamics						
6	Cy-152 Chemistry	BS	3	1	3	5	
	Total Credits					21	
	THIRD SEMESTER						
1	Economics & IPR	IC	2	1	0	3	
2	IT Skills	IC	1	0	2	2	
3	Ma-253 Mathematical Methods I	BS	2	1	0	3	
4	Ma-253 Mechanics	BS	2	1	0	3	
5	PH-211 Optical Physics	BS	3	1	2	5	
6	Cy-251 Chemistry	BS	3	1	3	5	
	Total Credits					21	
	FOURTH SEMESTER						
1	Management Concepts & Practices	IC	1	0	2	2	
2	Behavioral Science	IC	2	0	0	2	
3	Ma-252 Complex Analysis I	BS	2	1	0	3	
4	Ma-254 Numerical Methods	BS	2	1	0	3	
5	PH-212 Modern Physics	BS	3	1	2	5	
6	Cy-252 Chemistry	BS	3	1	3	5	
	Total Credits	1				20	

Annexure A.1.3
Curricular Structure for the Proposed Five Year
Integrated M.Tech. (Applied Geology) Programme

#### SECOND YEAR

S.No.	S.No. Course Subject Title code	Subject Title	Sub area	Contact			Credits
				L	T	Р	
AUTU	NN SEME	STER					
1.		Economics & IPR	IC	3	1	0	3
2.	· -,	IT Skills	IC	. 3	1	0	2
3.	GL-211	Physical Geology		4	1	0	5
4.	GL-212	Crystallography and		3	1	2	5
		Mineralogy					
5.	GL-213	Paleontology		3	1	2	5
·		Total					20
SPRIN	G SEMES	TER	L <u></u> .		·••	<del></del>	<del>!</del>
1.	GL-221	Structural Geology		3	1	2	5
2.	GL-222	Petrology		3	1	2	5
3.	GL-223	Stratigraphy		3	1	2	4
4.	GL-224	Field Training –I		0	0	0	3
5.	- · · · · · · · · · · · · · · · · · · ·	Behavioral Science	IC	2	1	0	2
6.		Management concepts	IC	3	0	0	3
	•	and Practices					
		Total					23

<sup>\*</sup> Note: The scheme of teaching and examination for first year shall be common with other integrated M.Sc./M.Tech. programmes.

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Existing Rule	Proposed Rule	Remark
1.6 Individual Consultancy Projects	1.5 Individual Consultancy Projects	No change except change in rule number from 1.6 to 1.5
All consultancy Projects which are not	All Consultancy Projects which are not	1.0 1.0
Departmental Consultancy Projects will be treated	Departmental Consultancy Projects will be treated	
as Individual Consultancy Project.	as Individual Consultancy Project.	
1.7 Type-I Consultancy Projects	1.6 Type-I Consultancy Projects including HRD	No change except change in rule
	Programmes in the Continuing Education Centre	number & inclusion of HRD programmes etc in bold.
Consultancy Projects without the use of laboratory	Consultancy Projects without the use of laboratory	
facilities of the Institute will be classified as Type –	facilities of the Institute will be classified as	
I Consultancy Projects.	Type –I Consultancy Projects.	
1.8 Type-II Consultancy Projects	1.7 Type-II Consultancy Projects	No change except change in rule number from 1.8 to 1.7
Consultancy Projects involving use of laboratory	Consultancy Projects involving use of laboratory	
facilities of the Institute will be classified as Type-	facilities of the Institute will be classified as Type-	
II Consultancy Projects. Such projects will cover	II Consultancy Projects. Such projects will cover	
field testing, and field measurements, calibration of	field testing, and field measurements, calibration of	
equipment/ instruments and testing of material/	equipment/ instruments and testing of material/	eg er
equipment in laboratory and development work	·	
using laboratory facilities.	using laboratory facilities.	
1.5 Departmental Consultancy Projects	1.8 Type- III Departmental Consultancy	No change except bold portion and the
	Projects with/ without use of lab facilities	last para has been deleted with no distinction between with & without lab
A project referred to the Head of the Department	A project referred to the Head of the Department or	facilities
may be taken up as a Departmental Consultancy	a functionary of the Institute (i.e. Deans or	
Project. Further, a project referred to an individual	Director) may be taken up as a Departmental or	·
faculty member may also be taken up as	individual Consultancy Project. Further, a project	
Departmental Consultancy Project at the request of	referred to an individual faculty member may also	
that faculty member. Normally, Consultancy	be taken up as Departmental Consultancy Project at	

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Projects involving multi disciplinary/ the request of that faculty member. Normally, inter departmental inputs or requiring use of large Consultancy Projects involving multi disciplinary/ facilities, likewise projects which were expected to inter departmental inputs or requiring use of large run for a long period may be considered by a facilities, likewise projects which were expected to department to be taken up as Departmental run for a long period may be considered by a Consultancy Projects. A Departmental Consultancy department to be taken up as Departmental Project will have at least three investigators. Consultancy Projects. A Departmental Consultancy However, the centers / departments with special Project will have at least three investigators. character different from that of normal teaching departments the respective centers/ departments may define the scope of Departmental Consultancy Project, in accordance with their needs, subject to the approval of the Board of Governors. 1.11 Institute Development Fund (IDF) 1.11 Institute Development Fund (IDF) No change except bold portion for clarity A part of the Institutional Overhead Charges (IOC) A part of the Institutional Overhead Charges (IOC) received for sponsored research and a part of the received for sponsored research and a part of the Institute share from Industrial Consultancy project Institute share from Industrial Consultancy project will be credited to a separate Dean (SRIC) fund as will be credited to a separate fund operated by Dean (SRIC) as per budget approved by the Budget per budget approved by the Budget Committee of fund to be called as SRIC fund and to be operated Committee of fund to be called as SRIC fund and by Dean of the Institute. A part of the SRIC fund to be operated by Dean (SRIC) of the Institute. A will be transferred every year to Institute part of the SRIC fund will be transferred every year Development fund, which will form the Corpus of to Institute Development fund, which will form the Corpus of the Institute. the Institute. 2.4 2.4 No change except bold portion For projects involving only site visits for For projects involving only site visits for consultation work and/ or personal discussion, fees consultation work and/ or personal discussion, fees may be charged on per day basis at mutually may be charged on per day basis at mutually acceptable rate subject to minimum of Rs.2500/acceptable rate which shall normally be a per man-day for academic staff, including the days minimum of Rs.5000/- per man-day for academic staff, including the days spent on travel. spent on travel.

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2.5	2.5	No change except bold portion
For technical and other non-academic staff, making only site visits outside the scope of an on-going Consultancy Project, fees may be charged on per day basis at minimum of Rs.200/- per man-day.	For technical and other non-academic staff, making only site visits outside the scope of an on-going Consultancy Project, fees may be charged on per day basis at minimum of Rs.500/- per man-day.	
2.7	2.7	No change except bold portion
No Consultancy project from any agency can be taken up for an amount less than Rs.2500/ This will, however, not apply for cases where rates have been fixed by the department / Institute. This limit may be reviewed every three years.	No Consultancy project from any agency can be taken up for an amount less than Rs.10,000/ This will, however, not apply for cases where rates have been fixed by the department / Institute. This limit may be reviewed every three years	
2.10	2.10	This being redundant portion is deleted
In addition to academic & technical staff, the PI may distribute upto Rs.5000/- or 2% of total amount of honorarium being distributed, whichever is less, as remuneration to other staff of the department for miscellaneous assistance rendered in the execution of the project.	Be Deleted	
3.2 Students Assistance	3.2 Students Assistance	No change except bold portion
The Principal Investigator may engage Institute Students as Student Assistants for consultancy and testing work on payment of Rs.50/- per hour subject to a maximum of 50 hours per month. However, students receiving fellowship from any agency shall not be entitled to such payments.	The Principal Investigator may engage Institute Students (who may or may not be getting fellowship) as Student Assistants for consultancy and testing work on payment of Rs.100/- per hour subject to a maximum of 50 hours per month.	

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3.3 Hospitality	2 2 11'/ 1'/	
3.3 Hospitatity	3.3 Hospitality	No change except bold portion and last
Expanses insured on researchle beautality and	T	limiting clause deleted.
Expenses incurred on reasonable hospitality not	Expenses incurred on reasonable hospitality not	
exceeding Rs.300/- per head per meal and Rs.75/-	exceeding Rs.400/- per head per meal and Rs.150/-	
per head for snacks etc., in connection with the	per head for snacks etc., in connection with the	
consultation work can be charged as expenses out	consultation work can be charged as expenses.	<u>.</u>
of the fee received subject to the condition that the		
total expenditure on this account should not exceed		
5% of gross fees contracted for the project. For		·
larger expenditure approval of Dean (SRIC) will be		
necessary.		
3.4 Travel	3.4 Travel	No change except bold portion
The most expeditious and convenient mode of	The most expeditious and convenient mode of	
travel should be used to minimize period of	travel should be used to minimize period of	
absence from the Institute. There will be no	absence from the Institute. There will be no	
restriction placed by the Institute on the mode of	restriction placed by the Institute on the mode of	
travel. Actual boarding & lodging expenses, in	travel. In addition to the admissible DA as per rules	
addition to DA, will be paid on production of	of the Institute, Actual boarding & lodging	
receipt, subject to a maximum of twice the daily	expenses will be paid on production of receipt,	·
gross salary at the ceiling of the person's pay scale.	subject to a maximum of twice the daily gross	
All these expenses will be met out of the	salary at the ceiling of the person's pay scale.	
Consultancy project funds.	Expenses on local travel by taxi will be reimbursed	
Consultancy project funds.	against cash receipt as per actuals. All these	
	expenses will be met out of the Consultancy project	
	funds.	
3.5 Out of Pocket Expenses for Field Work*	3.5 Out of Pocket Expenses for Field Work	No change except bold portion
The payment of "Out of Pocket Expenses" to the	The payment of "Out of Pocket Expenses" to the	
faculty and other staff sent for field work connected	faculty and other Institute staff, project staff and	
with the sponsored research or consultancy projects	persons engaged on work hire basis sent for field	
will be admissible on the following conditions:	work connected with the sponsored research or	
MILL OF WHITHOUTH OIL MILE TOTIO LITTLE ACTIVATIONS	consultancy projects will be admissible on the	
	following rates:	,

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(d) The rate of payment of Out of pocket expenses	(d) The rate of payment of Out of pocket expenses	1. No change except bold portion
will be as under:	will be as under:	
Category of Staff Rate	Category of Staff Rate	2. Reference to notification deleted
Category of Staff Class 'A' and 'B' Rs.225/- per day	Category of Staff Rate Class 'A' and 'B' Rs.450/- per day	being redundant.
Class 'C' and 'D' Rs.100/- per day	Class 'C' and 'D' Rs.200/- per day	
*See notification No. SRIC/1165/BSRIC-2003	Person engaged on work hire basis Rs. 200/- per	
dated March 24, 2003.	day.	
3.6Consultants	3.6Consultants	
3.6.1		
5.0.1	3.6.1	<del>.</del>
Normally provision for involving experts from	Normally provision for involving experts from	
outside the Institute as consultants, if necessary,	outside the Institute as consultants, if necessary,	No change except bold portion
will be made at the time of acceptance / approval of	will be made at the time of acceptance / approval of	
the project.	the project and in case of large consultancy	
	project the involvement will be decided by	
	monitoring committee as per clause 12 of	
	guidelines for industrial consultancy.	
3.6.2	3.6.2	
		No change except bold portion
An amount upto Rs.25,000 or 10% of the	• •	
Consultancy fee, whichever is lower, can be paid to	Consultancy fee, whichever is lower, can be paid to	
Consultant(s) after obtaining approval from the	Consultant(s) after obtaining approval from the	
Dean (SRIC).	Dean (SRIC).	
3.6.3	3.6.3	
For payment over Rs.25,000 and upto Rs.50,000 or	For payment over Rs.50,000 and upto Rs.1,00,000	No change except bold portion
15% of the total fees, whichever is lower, approval	or 30% of the total fees, whichever is lower,	Property of the position
of a Committee set up for this purpose by the	approval of a Committee set up for this purpose by	
Director under the Chairmanship of Dean (SRIC)	the Director under the Chairmanship of Dean	
would be required	(SRIC) would be required.	}

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3.6.4	3.6.4	·
For payments over Rs.50,000 or over 15% of the Consultancy fee, Director may approve payments on the recommendations of the Committee mentioned above.		No change except bold portion
3.6.5	3.6.5	
Payment exceeding 20% of the total Consultancy fee shall not normally be allowed to consultant(s).	Payment exceeding 40% of the total Consultancy fee shall not normally be allowed to consultant(s).	No change except bold portion
3.7	3.7 Standing Committee	
	A committee as at 3.6.3 duly proposed by the Dean (SRIC) and approved by the Director shall be the Standing Committee for Consultancy Projects.	
	3.7.1 The composition of the Standing Committee shall be is as under:-	Although this practice is in force but the Committee is now changed to a Standing Committee through
	(i) Dean SRIC (ex-officio) - Chairman (ii) Three Professors from - Members different Departments proposed by the Dean SRIC & approved by Director	New rules proposed vide item No. 8.3.3 of 8 <sup>th</sup> Meeting of Board SRIC held on 17.12.2004 defining composition & functions of the Standing Committee.
	3.7.2 Functions of Standing Committee	
	(i) To consider involvement of consultants/ outside experts as per rule 3.6 consultants  (ii) To consider the sub-contract, if any, as proposed by the PI/ Monitoring Committee of the project.	

4.1 INDIVIDUAL CONSULTANCY PROJECTS	4.1 INDIVIDUAL CONSULTANCY PROJECTS (including HRD activities in the Continuing Education Centre).	
For Consultancy work without use of Laboratory Facilities, the norms for calculation of various percentages for distribution will be as follows:	For Consultancy work without use of Laboratory Facilities and HRD activities in the Continuing Education Centre, the norms for calculation of various percentages for distribution of the total money received from client (excluding service tax in every case) will be as follows:	HRD activities included
4.1.1 Consultancy work without use of laboratory facilities(Type I)  Total Fee received from client = I  Amount paid as Institute share in the beginning =	4.1.1 Consultancy work without use of laboratory facilities(Type I)  Total money received from client = I  Amount paid as Institute share in the beginning	Institute Share increased to 20% distribution simplified.
0.05 I Remaining amount (F) = 0.95 I Total expenditure on the project = E	(I*)= 0.20 I  Remaining amount (F) = 0.80 I  Total expenditure on the project = E	distribution simplified.
Savings = $(S) = (F - E)$ Amount paid as Institute share = 0.15 S Remaining amount = 0.85 S 0.80 S to be distributed to Investigators 0.05 S to be distributed for office support and staff welfare fund.	Savings = (S) = (F - E)  Amount S to be distributed to Investigators, technical and other staff on the recommendation of PI	
4.1.2 Consultancy work involving use of laboratory facilities(Type II)	4.1.2 Consultancy work involving use of laboratory facilities(Type II)	No Change
For Consultancy work involving use of Laboratory Facilities, the norms for calculation of various percentages for distribution will be as follows:	For Consultancy work involving use of Laboratory Facilities, the norms for calculation of various percentages for distribution will be as follows:	

(Ju)	
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Total Fee received from client = I Amount paid as Institute share in the beginning = $0.05 \text{ I}$ Remaining amount (F) = $0.95 \text{ I}$ Total expenditure on the project = E Savings = (S) = (F - E) Amount paid as Institute share = $0.30 \text{ S}$ Remainder = $0.70 \text{ S}0.65 \text{ S}$ to be distributed to Investigators / Technical Staff $0.05 \text{ S}$ to be distributed for office support and staff welfare fund.	Total money received from client = I Amount paid as Institute share in the beginning (I*)= 0.30 I Remaining amount (F) = 0.70 I Total expenditure on the project = E Savings = (S) = (F - E) Amount S to be distributed to Investigators, technical and other staff on the recommendation of PI	Institute Share increased to 30% & distribution simplified.
4.1.3  The guidelines for distribution of 0.05 S will be decided by the Board for Sponsored Research & Industrial Consultancy (BSRIC) from time to time.	4.1.3  The guidelines of distribution for office support and staff welfare fund will be decided by the Board for Sponsored Research & Industrial Consultancy (BSRIC) from time to time.	No change except bold portion
4.2 DEPARTMENTAL CONSULTANCY PROJECT	rs	
4.2.1 In 'Departmental Consultancy Projects' without use of laboratory facilities, the Institute share from the saving(S) will be 0.35 S; 0.6 S will be distributed to investigators/ technical staff and 0.05 S is to be distributed as per clause 4.3.	4.2.1 In 'Departmental Consultancy Projects' Type III (with & without use of lab facilities) the norms for calculation of various percentages for distribution will be as follows: Total money received from client = I Amount paid as Institute share in the beginning = 0.40 I Remaining amount (F) = 0.60 I	Institute Share increased to 40% and distribution simplified.
4.2.2 In 'Departmental Consultancy Projects' involving laboratory facilities, the Institute share from saving (S) will be 0.5 S; 0.45 S will be distributed to the investigators / technical staff and 0.05 S is to be distributed as per clause 4.3.	Total expenditure on the project = E Savings = (S) = (F - E) Amount S to be distributed to Investigators, technical and other staff on the recommendation of PI	

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For deficit departments/ centres the Institute share of saving(S) as given in 4.2.1 and 4.2.2 above will go towards salary of staff of the concerned department. 0.05 S to be distributed as per clause 4.3 and remaining to be distributed to investigators/ technical staff.

## 4.2.3

To be deleted & substituted by following clause:-

However, in case of a large consultancy project to be funded by a Government Organisation, Institute share may be negotiated with the approval of Director.

## Deleted being redundant.

Old clause deleted & substituted by a new clause for large Govt. funded projects as per deliberations in Senate.

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Existing Guideline	Proposed Guideline	Remark
B. BUDGETARY NORMS FOR	1010	
CONSULTANCY PROJECTS	CONSULTANCY PROJECTS	
(viii)Contingency expenses to cover cost of	(viii)Contingency expenses to cover cost of	Bold portion added
supplies, preparation of report, typing,	supplies, preparation of report, typing,	
word processing, drawing, drafting, stationery, reproduction, literature (books, journals,	word processing, drawing, drafting, stationery, reproduction, literature (books, journals,	
membership fee for professional societies),	reproduction, literature (books, journals, membership fee for professional societies),	•
postage, courier, FAX and telephone (including	postage, courier, FAX and telephone (including	
rental and STD/ trunk call bills of telephone at	rental and STD/ ISD call bills of telephone at	
residence), entertainment expenses, cost of	residence or mobile phones), cost of insurance of	
insurance of personnel/ equipment being used for	personnel/ equipment being used for the project	
he project, etc.	and medical reimbursement on duty (excluding	
12. LARGE CONSULTANCY PROJECTS	major ailments) for staff etc.  12. LARGE CONSULTANCY PROJECTS	
12. LARGE CONSULTANCY PROJECTS	12. LARGE CONSULTANCY PROJECTS	
For projects with an outlay of more than Rs.50	For projects with an outlay of more than Rs.50 lacs,	
lacs, the P.I. will ensure that the project proposal	the P.I. will ensure that the project proposal before	
before it is submitted to the sponsoring agency is	it is submitted to the sponsoring agency is vetted by	
vetted by the Head of the Department and Dean	the Head of the Department and Dean(SRIC). The	No Change
(SRIC). The project, after it is approved by Dean,	project, after it is approved by Dean, SRIC, will be	
SRIC, will be monitored by a Monitoring	monitored by a Monitoring Committee, appointed	
Committee, appointed specially for each such	specially for each such project by the Director on the recommendation of the Dean, SRIC.	
project by the Director on the recommendation of the Dean (SRIC).		
the Dean (BRIC).	12.1 COMPOSITION OF PROJECT	
	MONITORING COMMITTEE	
	The Principal Investigator of the Consultancy	New Guidelines amended vide item No
	Project (having outlay of more than Rs.50.00 lac)	9.1.0 of minutes of 9th Meeting of Board
	may propose a Monitoring Committee for approval	SRIC held on 2.6.2005
	with the following composition:	

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	(1) Dean, SRIC	- Chairman		
	(2) Head of the concerned Deptt.	- Member		
	(3) Head of one more relevant department	- Member		
	(4) One faculty Member from relevant field	- Member		
	(5) Principal Investigator	- Member		
	(6) A.R. (SRIC-Admn.) - Non-Memb	er Secretary		
	12.2 FUNCTIONS OF MOTOCOMMITTEE	NITORING	·	
	The role of Monitoring Committee follows:	will be as		
	12.2.1 To assess the progress peri timely completion of the p submit the report to Dean SRIC	orojects and	·	
	12.2.2 To consider and approve Involute outside experts and sub-contract			
-	12.2.3 To vet the major financial proposals of budget of th including modifications if any.	reallocation		
	12.2.4 To advice Dean, SRIC in any	other matter		

related to the project.

The recommendations of the Board, SRIC are put up for consideration of the Senate.

## Distribution of Institute Share in % age

Existing Rule for general	te of PE	F		Proposed Ri	ule for go	enerate o	of PDF		
(B) Type of Industrial Consultancy Project	IDF	DDF	PDF	(B) Type of Industrial Consultancy Project	IDF	DDF	PDF	Incentive to office staff & staff Welfare Fund	Remarks
(i) Type-I, Individual (w/o Lab)	50	25	25	(i) Type-I, Individual (w/o Lab)	50	15	25	10	
(ii) Type-II, Individual (with lab)	70	15	15	(ii) Type-II, Individual (with Lab)	70	10	15	5	
(iii) Type-I, Departmental (w/o Lab)	80	10	10	(iii)Type-III, Departmental (with Lab / without Lab)	70	10	15	5	
(iv) Type-II, Departmental (with Lab)	85	7.5	7.5						
(C) HRD Programmes Institutional Overhead Charges(I)									
(i) Sponsored Courses	50	10	30	(i) Sponsored Courses	Be	Deleted	as HRI	Programm	e are
(ii) Special Courses	60	05	30	(ii) Special Courses	included in TYPE-I				

Existing Rule for Utilization of PDF	Proposed Rule for Utilization of PDF	Remark
Rule 2 - PDF can be utilized by concerned	Rule 2 - PDF can be utilized by concerned faculty	
faculty member for the following purposes:	member for the following purposes:	
2.1 TA/DA and registration fee for attending a	2.1 TA/DA and registration fee for attending a	·
conference in India or abroad and for making	conference/workshop/symposia/seminar/meeting	
exploratory visits for sponsored research/	etc. or deliver a talk without restriction on number	
consultancy work.	of such visits (subject to sanction of appropriate	
consultancy work.	leave by competent authority) to a place in India	
	or abroad and for making exploratory visits for	
	further sponsored research/ consultancy work, with	
·	advance approval of Dean, SRIC	
	In case a student is a co-author of a paper being	
	presented in a conference etc. and the PI wishes	Provision extended to attending
	to pay from his PDF for the student's	workshop, symposia and seminar etc. and
	registration fees and travel, the same will also	paying expenses of student co-author.
	be permissible.	·
O A To the sensition of facilities from		Office included for AC
2.4 Equipments/Air conditioned facilities for		Office included for AC
laboratories and Phone/ Fax facilities in the	conditioner for laboratory/office can be	
office.	purchased with the prior approval of Dean SRIC, which shall be treated as T&P items as per	
	· · · · · · · · · · · · · · · · · · ·	
	the existing norms of the Institute and therefore shall remain property of the Institute.	·
		Digital Camera/Web Camera included
2.5 Upgradation or outright purchase of	2.5 Upgradation or outright purchase of laptop or	Digital Camera/Web Camera included
laptop or desktop computer and related	desktop computer and related peripherals like	
peripherals for use by the faculty member at	digital camera/ web camera for use by the faculty	
any location as per the work requirement.	member at any location as per the work	
(C. II 1 - DI	requirement on approval of Dean, SRIC.	Davied of Do numbers unduced and
2.7 Cost of handset (Cellular Phone) once		Period of Re-purchase reduced and amount increased
in five years and Rs.500/- p.m. on any type of	years and Rs.1000/- p.m. on any type of telephone	amount increased
telephone calls including pre-paid cash card.	calls including pre-paid cash card.	
	In case of a theft, repurchase may be allowed by	
	Dean, SRIC on furnishing of a copy of FIR along	<u> </u>

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	with the request for repurchase. On subsequent	
	incident of theft, repurchase shall however, be	
	allowed after the completion of two years period.	
Rule 4	Rule 4	Retaining after retirement permitted
The items procured out of PDF shall be	The items procured out of PDF shall be properly	•
properly accounted for and shall remain	accounted for and shall remain property of the	·
property of the Institute. However, any non-	Institute. However, any non-consumable items	
consumable items mentioned at serial nos. 2.3,	mentioned at serial nos. 2.3, 2.5, 2.7 above may be	
2.5, 2.7 above may remain as loan to the	taken away by the concerned faculty from the	
concerned faculty from the Departmental	Departmental Library/Laboratory, on payment of	
Library/Laboratory, where the stock entry was	book value as per income tax rules during the	
made.	period of service or within 3 years of	·
	retirement/leaving the service of Institute.	
	Rule 7	New rule Added
	Donations to IDF from PDF by desiring faculty	
	member(s) /academic staff are permitted	