सीनेट की अट्ठाईसवीं बैठक का कार्यवृत्त MINUTES OF THE 28TH MEETING OF THE SENATE

2ND MARCH 2009



भारतीय प्रौद्योगिकी संस्थान रूड़की रूड़की – 247 667 (भारत)

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



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Lt. Col AK Srivastava (Retd) Registrar

No. IITR/MS/28th Senate/ 2523 Dated: 19th March 2009

ALL MEMBERS OF THE SENATE Indian Institute of Technology Roorkee

Subject: Minutes of the 28th Meeting of the Senate held on 2nd March 2009.

Enclosed herewith please find a copy of the Minutes of the 28th Meeting of the Senate of this Institute held on 2nd March 2009 in the Senate Hall of the Institute, for your perusal. Your comments, if any, on the minutes may please be sent within 15 days.

Encl: As above

(A.K. Srivastava) Lt. Col. (Retd) Registrar & Secretary, Senate

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



Minutes of the 28th Meeting of the Senate held on 2nd March 2009 at 03.00 P.M. in the Senate Hall of the Institute.

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Minutes of the 28th Meeting of the Senate held on 2nd March 2009 in the Senate Hall of the Institute.

The following were present: -

1.	Prof. S.C. Saxena	Director
2.	Prof. H.K. Verma	Dy. Director
3.	Prof. S.Y. Kulkarni	(Architectur
4.	Prof. Ritu Barthwal	(Biotechnold
5.	Prof. R.P. Singh	Biotechnolo
б.	Prof. I.M. Mishra	Chemical E
7.	Prof. Shri Chand	(Chemical E
8.	Prof. I.D. Mall	Chemical E
9.	Prof. Vijay Kumar Agarwal	(Chemical E
10.	Prof. G. Bhattacharjee	(Chemistry)
11.	Prof. R.N. Goyal	(Chemistry)
12.	Prof. Ravi Bhushan	(Chemistry)
13.	Prof. Kamaluddin	(Chemistry)
14.	Prof. V.K. Gupta	(Chemistry)
15.	Prof. Anil Kumar	(Chemistry)
1б.	Prof. U.P. Singh	(Chemistry)
17.	Prof. M.R. Maurya	(Chemistry)
18.	Prof. G. Ramasamy	(Civil Engine
19.	Prof. S.S. Jain	(Civil Engine
20.	Prof. Deepak Kashyap	(Civil Engine
21.	Prof. (Mrs) Indu Mehrotra	(Civil Engine
22.	Prof. (Mrs) Renu Bhargava	(Civil Engine
23.	Prof. S.K. Ghosh	(Civil Engine
24.	Prof. Manoranjan Parida	(Civil Engine
25.	Prof. Praveen Kumar	(Civil Engine
26.	Prof. A.K. Ahuja	(Civil Engine
27.	Prof. D.K. Paul	(Earthquake
28.	Prof. Ashwini Kumar	(Earthquake
29.	Prof. H.R. Wason	(Earthquake
30.	Prof. H. Sinvhal	(Earth Scien
31.	Prof. R.P. Gupta	(Earth Scien
32.	Prof. V.N. Singh	(Earth Scien
33.	Prof. A.K. Awasthi	(Earth Scien
34.	Prof. A.K. Saraf	(Earth Scien
35.	Prof. Rathina Anbalagan	(Earth Scien
36.	Prof. Mohd. Israil	(Earth Scien
37.	Prof. H.O. Gupta	(Electrical E
38.	Prof. S.P. Gupta	(Electrical E
39.	Prof. Vinod Kumar	(Electrical E
40.	Prof. Pramod Agarwal	(Electrical Er
41.	Prof. S. P. Singh	(Electrical Er

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-Chairman

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42.	Prof. R.P. Maheshwari	(Electrical Engineering)
43.	Prof. S.P. Srivastava	(Electrical Engineering)
44.	Prof. N.P. Padhy	(Electrical Engineering)
45.	Prof. D.K. Mehra	(Electronics & Computer Engg
46.	Prof. (Mrs.) Kumkum Garg	(Electronics & Computer Engg.)
47.	Prof. S.N. Sinha	(Electronics & Computer Engg.)
48.	Prof. Ranvir Singh	(Hydrology)
49.	Prof. D.C. Singhal	(Hydrology)
50.	Prof. N.K. Goel	(Hydrology)
51.	Prof. Himanshu Joshi	(Hydrology)
52.	Prof. Pashupati Jha	(Humanities & Social Sciences)
53.	Prof. Sukh Pal Singh	(Humanities & Social Sciences)
54.	Prof. A.K. Ray	(Paper Technology)
55.	Prof. J.S. Upadhyay	(Paper Technology)
56.	Prof. V.K. Nangia	(Management Studies)
57.	Prof. G.S. Srivastava	(Mathematics)
58.	Prof. T.R. Gulati	(Mathematics)
59.	Prof. (Mrs) Rama Bhargava	(Mathematics)
60.	Prof. M.L. Mittal	(Mathematics)
61.	Prof. Satish C. Sharma	(Mechanical & Industrial Engg.)
62.	Prof. Dinesh Kumar	(Mechanical & Industrial Engg.)
63.	Prof. P.K. Jain	(Mechanical & Industrial Engg.)
64.	Prof. B.K. Gandhi	(Mechanical & Industrial Engg.)
65.	Prof. Satya Prakash	(Metallurgical & Materials Engg.)
66.	Prof. S. Ray	(Metallurgical & Materials Engg.)
67.	Prof. P.K. Ghosh	(Metallurgical & Materials Engg.)
68.	Prof. S.K. Nath	(Metallurgical & Materials Engg.)
69.	Prof. Jagdish Rai	(Physics)
70.	Prof. G.S. Singh	(Physics)
71.	Prof. Rajesh Srivastava	(Physics)
72.	Prof. Vir Singh	(Physics)
73.	Prof. D. Das	(Water Resource Dev. & Management)
74.	Prof. M.L. Kansal	(Water Resource Dev. & Management)
75.	Prof. Deepak Khare	(Water Resource Dev. & Management)
76.	Prof. Karmeshu, JNU, New De	elhi
77.	Mr. Yogendra Singh, Librarian	n, Central Library
78.	Dr. G.S. Agarwal, Chief Warde	en, Govind Bhawan
79.	Dr. Ankush Mittal, Associate l	Professor, Electronics & Computer Engg.
80.	Mr. S. Chakravorty, Assistant	Professor, Electronics & Computer Engg.
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81. Dr. Sandeep Singh, Associate Professor, Earth Sciences

82. Lt.Col. (Retd.) A.K. Srivastava, Registrar - Secretary

The Chairman (Director) welcomed the members to the 28th Meeting of the Senate especially Prof. Karmeshu, JNU, New Delhi.

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

- 1. Prof. H.C. Gupta, Dy. Director, Indian Institute of Technology Delhi
- 2. Prof. N.K. Sharma, Department of Industrial & Management Engineering, Indian Institute of Technology Kanpur

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

New members:

- 1. Prof. Prem K. Kalra, Department of Electrical Engineering Indian Institute of Technology Kanpur.
- 2. Prof. Sushil, Department of Management Studies, Indian Institute of Technology Delhi.

Re-nominated member:

3. Prof. Karmeshu, Professor & Dean, School of Computers & Systems Sciences, Jawaharlal Nehru University, New Delhi

The Senate noted communications received from the following members for not attending the current meeting:

- 1. Prof. G.L. Asawa, Department of Civil Engineering
- 2. Prof. B.D. Indu, Department of Physics
- 3. Prof. R.G. S. Sastry, Department of Earth Sciences
- 4. Prof. A.K. Jain, Department of Physics
- 5. Prof. Sushil, IIT Delhi

The Agenda was then taken up:

Item No. 28.1.1: To confirm the minutes of the 27th meeting (Special Meeting) of the Senate held on 24th October 2008.

The minutes of the 27th meeting (Special Meeting) of the Senate held on 24th October 2008 were confirmed.

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Item No. 28.1.2: To receive a report on the actions taken to implement the decisions taken by the Senate in its 25th meeting held on 23rd June 2008, 26th Meeting (Emergent Meeting) held on 18th July 2008 and Special Meeting (27th Meeting) held on 24th October 2008, respectively.

The Senate noted that the actions have been taken on the decisions taken by the Senate in its 25th meeting held on 23rd June 2008, 26th Meeting (Emergent Meeting) held on 18th July 2008 and Special Meeting (27th Meeting) held on 24th October 2008, respectively with the following observation:

The last para to the Item No.26.4 of the minutes of the Senate Meeting held on 18.07.2008 be read as under:

"The Senate further decided that the resumes of the experts will also be submitted by the respective departments for the consideration of the Senate. The Senate also recommended that the same criteria may also be adopted for the nominees of the Board".

Item No. 28.2.1: To consider the panels of Senate's Nominees on the Selection Committee for Academic Group 'A' posts.

The Senate decided that the panels of Senate's Nominees on the Selection Committee for the Academic (Non-Teaching) Group 'A' posts in respect of the undermentioned Departments/Centres be approved as given at **Appendices 'A', 'B', 'C' and 'D'**, respectively:

- 1. Institute Computer Centre
- 2. Quality Improvement Programme Centre
- 3. Central NMR Facility
- 4. Central Library

Item No. 28.2.2: To reconsider the suggestions of different DFBs regarding Modifications in awarding grades.

As considered and recommended by the Board of Studies, the Senate after minor modifications approved the modified procedure for awarding grades to the students. The modified procedure for awarding grades is appended at **Appendix 'E'**.

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Item No. 28.2.3: To consider the new names in the panel of eminent personalities outside Roorkee for screening and evaluating Alumni Awards for the year 2008-09 and onwards.

The Senate decided that the under-mentioned panel of eminent personalities outside IIT Roorkee be identified for Distinguished Alumni Awards for the years 2008-09 and 2009-10:

- 1. Mr. V.K. Agnihotri
- 2. Prof. S.K. Khanna
- 3. Prof. S.K. Joshi
- 4. Mr. R.K. Singh
- 5. Dr. D. Khakhar, Director, IIT Bombay
- 6. Dr. D.V. Singh
- 7. Dr. A.S. Arva
- 8. Mr. S.B. Budhiraja

Item No.28.2.4: To consider suggestions received from the the departments regarding restructuring of M.Sc. programmes.

After discussion, the Senate came to the conclusion that the issue be referred back to the Dean (Academic Studies) for re-consideration by the Committee, constituted for the purpose, and the matter may again be placed before the Senate, for consideration.

Item No.28.2.5: To reconsider the proposal of Department of Electrical Engineering to start an IDD programme in collaboration with University of Western Ontario, Canada.

As considered and recommended by the Board of Studies, the Senate decided that the revised proposal of the Department of Electrical Engineering to start an IDD programme in collaboration with University of Western Ontario, Canada as given at Appendix 'F' be approved.

Item No.28.2.6: To consider the new structure of B.Arch. for the students to be admitted from the session 2009-10.

As considered and recommended by the Board of Studies, the Senate decided that the modified structure of B.Arch. for the students to be admitted from the session 2009-10 be approved as given at Appendix 'G'.

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The Senate further decided that the total number of credits for the five year B.Arch. course be limited to 210-225 in order to meet the requirements of Council of Architecture.

Item No.28.2.7: To consider the syllabi of new Institute Electives proposed by the Department of Humanities and Social Sciences.

As considered and recommended by the Board of Studies, the Senate decided that the syllabi of the undermentioned new Institute Electives proposed by the Department of Humanities and Social Sciences be approved:

- 1. IHS-01 Introduction to IPRs
- 2. IHS-02 Psychological Basis of Behavior
- 3. IHS-03 Group Dynamics
- 4. IHS-04 Industrial Sociology
- 5. IHS-05 Modern Drama
- 6. IHS-06 Indian Novel in English
- 7. IHS-07 Economics of Industrial Strategy
- 8. IHS-08 Entrepreneurship Development Strategies
- 9. IHS-09 Science, Technology and Society
- 10. IHS-10 Film and Literature
- 11. IHS-11 Identity and Contemporary Literature

The syllabi of these electives are given at Appendix 'H'.

The Senate further decided that in order to bring uniformity with the other elective courses in the new structure, the under-mentioned courses already approved by the Senate, under the Humanities and Social Sciences Elective Category, be renumbered as under:

SI. No.	Subject	Old No.	New No.
(a)	Linguistics	IHS-16	IHS-12
(b)	Environment Economics	IHS-74	IHS-13
(c)	Fiction of the Indian Diaspora	IHS-14	IHS-14
(d)	Creative Writing in English	IHS-15	IHS-15

Item No.28.2.8: To consider the suggestions received from the departments regarding restructuring of the M.Tech. programmes.

The Senate decided that the recommendations regarding review of the post B.Tech./ B.Arch/ M.Sc. PG Programme as given at **Appendix 'I'**, be accepted.

Item No.28.2.9: To consider modifications in the qualifications for admission to the Ph.D. programme in the Department of Hydrology.

As considered and recommended by the Board of Academic Research, the revised qualifications for admission to Ph.D. programme in Hydrology Department be approved, as under:

- a) Master's degree in Civil Engg./Water Resources Development/ Hydrology.
- b) Master's degree in Agricultural Engg./ Environmental Engg/ Instrumentation/water use management.
- c) M.Sc./M.Tech. in Geology/ Geophysics/Soil Science/ Forestry or natural Resources/ Chemistry/ Meteorology/ Atmospheric Physics/ Mathematics/Nuclear Physics & Environmental Sciences.
- d) M.Sc. Hydrology with Mathematics at Bachelor's level

Item No.28.2.10: To consider minimum educational requirements for admission to Ph.D. in Geology and Geophysics in the Department of Earth Sciences.

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As considered and recommended by the Board of Academic Research, the Senate decided that the revised qualifications for admission to the Ph.D. programme in Geology and Geophysics in the Department of Earth Sciences, be approved as under:

a) B.E/Masters degree in Earthquake, Civil, Mechanical, Electrical, Electronics, Hydrology, Geology, Geophysics, Geochemistry or equivalent.

b) M.Sc/M.Tech./M.Sc. (Tech.) degree in Physics, Chemistry, Mathematics, Statistics, Life Sciences, Marine Sciences, Environmental Science, Atmospheric Sciences or equivalent.

Item No.28.2.11: To consider the Guidelines for Award of Post Doctoral Fellowship.

As considered and recommended by the Board of Academic Research, the Senate decided that the guidelines for the award of Post Doctoral Fellowships be approved, as under:

GUIDELINES FOR AWARD OF POST DOCTORAL FELLOWSHIP

(a)	Qualification	Candidate with a Ph.D degree in Science and Engineering or those who have recently submitted their doctoral theses can apply
(b)	Age	Criteria for age should be same as for Ph.D.
(c)	Duration	2 years (renewable for one more year)
(d)	Fellowship	 (i) Rs.25,000/-p.m for a Ph.D. with 2 years experience (ii) Rs.20,000/-p.m for a recent Ph.D. degree holder
(e)	Contingency	Rs.20,000/- per annum.
(f)	H.R.A	As admissible
(g)	How to apply	On plain paper with complete bio-data, list of publications, Patent filed, research work and recommendations of at least two referees to Department/Centre concerned
(h)	Desirable	First class in degree preceding to Ph.D. and publications in journals of repute.

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ItemNo.28.2.12: To consider revised proformas to be used by the Research Scholars/Faculty/Institute in view of the restructuring of the Academic Section and also the Senate Manual.

As considered and recommended by the Board of Academic Research, the Senate decided that the revision of different proformas (No. I to XI) used by the Research Section for Research programme as given at **Appendix 'J'** be approved.

Item No.28.2.13: To consider financial assistance (Institutional Assistantship) to Ph.D. Research Scholars joining the Institute after superannuation.

As considered and recommended by the Board of Academic Research, the Senate decided that adding an additional clause to the Ph.D. Regulation $\mathbf{R-20}$ (3) relating to **non-eligibility** of institutional assistantship to Ph.D Research Scholars joining the Institute after superannuation from an organization be approved, as under:

R-20 3. Research Scholars joining after superannuation from an Organization will not be eligible for IITR assistantship.

Item No.28.2.14: To consider recognition of N.I.T Durgapur, Thapar Centre for Industrial Research & Development, Patiala and Tehri Hydro Development Corporation Rishikesh, New Tehri as Research Centres to pursue Ph.D. programme as part time candidates.

After due deliberation on the issue, the Senate decided as under:

- 1. Recognition of NIT Durgapur as Research Centre to pursue Ph.D. programme as part time candidates be not approved.
- 2. Recognition of Thapar Centre for Industrial Research & Development, Patiala as Research Centre to pursue Ph.D. programme as part time candidates in the areas of Paper and Pulp and related fields be approved.
- 3. Recognition of Tehri Hydro Development Corporation, Rishikesh, New Tehri as Research Centre to pursue Ph.D. programme as part time candidates be approved in the following areas:

1. Water Resources and Hydro Power

2. Hydrology

3. Management Studies

Item No.28.2.15: To consider the courses to be taught to the students to be admitted to IIT Himachal Pradesh in 2009.

The Senate decided that the students to be admitted to IIT Himachal Pradesh w.e.f. the academic session 2009-2010 and in subsequent years will be imparted the same courses as approved for the students of IIT Roorkee, till a separate curriculum structure for IIT Himachal Pradesh is framed.

Item No.28.2.16: To consider modifications in the GATE discipline for admission to PG programmes in the Department of Earthquake Engineering and the Centre for Nanotechnology.

As considered and recommended by the Board of Studies, the Senate decided that the modifications in the GATE disciplines and their break up for admission to the PG programmes in the Department of Earthquake Engineering and the Centre for Nanotechnology, be approved as under:-

Department/ Programmme	Eligible code of GATE discipline (minimum no. of seats)	Eligible code of GATE discipline (maximum no. of seats)
Structural Dynamics	CE (27)	Nil
Nanotechnology	MT/ME/EC/CH(10)	CY/PH/XL(05)

Approved GATE discipline and its breakup

Item No.28.2.17: To consider the modifications in the minimum educational qualifications for admission to the PG programmes in the Department of Chemical Engineering

As considered and recommended by the Board of Studies, the Senate decided that the modifications in the minimum educational qualifications for admission to the PG

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programmes in the Department of Chemical Engineering be approved, as under:-

Approved Educational Qualification

Department/ Programme	Approved qualification	minimum	educational
Chemical Eng	ineering		
CAPPD	Bachelor's Biochemical/ Technology/Pe Technology/ equivalent.	degree in Pulp & Pap trochemical/ Petroleum Re	Chemical/ per/ Chemical Polymer fining or its
IPA	Bachelor's de Paper /Civil/ Environmental Technology/ equivalent	gree in Che Biochemical Engineerin Polymer Tech	mical/Pulp & / Petroleum/ g/ Chemical nology or its
ISHM	Bachelor's Mechanical/ Environmental Technology/ H Polymer Techn	degree in Biochemical/ Engineerin Pulp & Paper ology or its equ	Chemical/ Petroleum/ g/ Chemical Engineering/ iivalent

Item No.28.2.18: To consider recognition of Tehri Hydro Development Corporation, Rishikesh and New Tehri as Research Centre to pursue Ph.D. programme as Part time.

Refer to item No.28.2.14.

Item No.28.2.19: To consider the syllabi of Integrated M.Sc. Physics Courses of III year onwards.

Due to paucity of time, the issue was deferred to the next meeting of the Senate.

Item No.28.2.20: To consider the syllabi of B.Arch. I year courses of the structure applicable from 2009-10 session.

Due to paucity of time, the issue was deferred to the next meeting of the Senate.

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Item No.28.2.21: To consider the syllabi of new Departmental Elective proposal by the Department of Mathematics.

Due to paucity of time, the issue was deferred to the next meeting of the Senate.

Item No.28.2.22: To consider the syllabi of new Institute Electives proposed by the Department of Metallurgical and Materials Engineering.

Due to paucity of time, the issue was deferred to the next meeting of the Senate.

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

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Appendix 'A' Item No. Senate/28.2.1

Panel of Senate's Nominees on the Selection Committee for Academic Group 'A' posts of the Institute Computer Centre.

- 1. Prof. Phalguni Gupta, IIT Kanpur
- 2. Prof. Supratim Biswas, IIT Mumbai
- 3. Prof. Sukumar Nandi, IIT Guwahati
- 4. Prof. I. Sengupta, IIT Kharagpur
- 5. Prof. Vinod Chandra, IIT Delhi
- 6. Prof. J.P. Gupta, Vice-Chancellor, JIIT, Noida

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Appendix 'B' Item No. Senate/28.2.1

List of Experts

 Prof. P. Venkataram Chariman, CCE & QIP Coordinator Indian Institute of Science, Bangalore Bangalore – 560 012 Tel : 080 – 23600911/23608150 22932747/22932247 Fax : 080 – 23600911/23608150 Email : <u>chairman@cce.iisc.ernet.in</u> <u>office@cce.iisc.ernet.in</u>

- Prof. Bhim Singh Indian Institute of Technology, Delhi Hauz Khas, New Delhi - 110 016. Tel :11- 2659 1045 Email: bsingh@ee.iitd.ac.in
- Prof. R K Thareja QIP Coordinator Indian Institute of Technology, Kanpur Kalyanpur, Kanpur – 208 016 Tel : 0512 – 2597795/2597893 2597940 (lab) Fax : 0512 – 2597795 Email : thareja@iitk.ac.in/doaa@iitk.ac.in
- Prof. Sudhir K. Jain Indian Institute of Technology Kanpur Kalyanpur, Kanpur – 208 016 Tel : 512- 259 7867 Email: skjainiitk.ac.in
- Prof. Ajay Chakraborty Dean, CE & QIP Coordinator Indian Institute of Technology, Kharagpur Kharagpur – 721 302 Tel : 03222 – 282033/220508/283606 Fax : 03222 – 255303/282033/220508 Email : <u>deance@hijli.iitkgp.ernet.in</u>

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,	 0.	Name	Designation	Addre	ss	Telep	hone No.	Mobile No.	Fax No.
				Present	Permanent	Off.	Res.		
•	1.	Dr. N.R.Jagannathan	Professor & Head	Department of Nuclear Magnetic Resonance Imaging, All India Institute of Medical Sciences, Ansari Nagar, New Delhi- 110 029 E. Mail: jagan1954@hotmail.com	Department of Nuclear Magnetic Resonance Imaging, All India Institute of Medical Sciences, Ansari Nagar, New Delhi- 110 029 E. Mail: jagan1954@hotmail.com	+91-11- 26593253	+91- 11-26593417	-	+91-11- 26588641
	2.	Dr. S. Durani	Professor	Bio-Organic Laboratory Department of Chemistry IIT Bombay, Mumbai- 400076	Bio-Organic Laboratory Department of Chemistry IIT Bombay, Mumbai- 400076	+ 91-22-2576 7164	+91-22-2576 8164	-	+ 91-22-2576 3480
A 19 MAS	3 15-	Dr. Gatitam.K. Jarori	Professor & Head	Molecular Biology Group, Tata Institute of Fundamental Research, Homi Bhabha Raod, Navy Nagar, Colaba, Mumbai- 400005 E. Mail: gkj@tifr.res.in	Molecular Biology Group, Tata Institute of Fundamental Research, Homi Bhabha Raod, Navy Nagar, Colaba, Mumbai- 400005	+91-22-2152971 Extn. 2228	+91-22-2188054 +91-22-22804559	-	Fax 91-22- 2152110,215218 1
1009	4.	Dr. (Mrs.) Krishna Mishra	Professor & Co-ordinator	Centre for Biotechnology, University of Allahabad, Allahabad 211 002 E. Mail: <u>kishnamisra@hotmail.com</u> , kkmisra@yahoo.com	Centre for Biotechnology, University of Allahabad, Allahabad 211 002 E. Mail: <u>kishnamisra@hotmail.com</u> kkmisra@yahoo.com	+91-532-609936	+91-532-465462	-	+91-532- 607367, 623221
	5.	Dr. K.V.R. Chary	Professor	Molecular Biophysics Group, Tata Institute of Fundamental Research, Homi Bhabha Road, Navy Nagar, Colaba, Mumbai 00005 E. Mail: <u>chary@tifr.res.in</u>	Molecular Biophysics Group, Tata Institute of Fundamental Research, Homi Bhabha Road, Navy Nagar, Colaba, Mumbai 00005	+91-22-2152971	+91-22-21≦0860	-	+91-22- 2152110, 2152181

(Head IIC) (Head Chemistry) (Head Medauturgy) 16.6.08

Appendix 'C' Item No. Senate/28.2.1 (Head Brokech. & Coordinal

16-6-08

CENTRAL LIBRARY INDIAN INSTITUTE OF TECHNOLOGY, ROORKEE

PANEL OF SENATE NOMINEES FOR SELECTIONS - NON-TEACHING GROUP 'A' POSTS 3rd June 2008

Sl.	Name	Designation	Address		Telephone		Mobile No.	Fax No.	
<u>NO.</u>			Present ·	Permanent	Office	Residence			
1.	Dr.(Mrs) Ashu Shokeen shokeen_ashu@rediffmail.com	Professor	Deptt of Library and Information Science Kurukshetra University Kurukshetra Haryana		01744- 238410/2386 29 Ext 2563/2868	01744- 238939	09416448939	01744 -293183	
2.	Mr. Prem Singh psingh@hau.ernet.in	University Librarian	CCS Haryana Agricultural University Hissar (Haryana)	*	01662- 284328	01662- 284621	09416335892		
6 ^{3.}	Dr. Jagdish Arora jarora@inflibnet.ac.in	Director	Inflibnet Centre (An Inter University Centre of UGC) Near Gujarat University Ahmedabad		079- 26305702	09974881882	09810080312/ 09974881882	079-26300990	
4.	Dr. S. Majumdar suprabhat_majumdar@yahoo.c om	University Librarian, and Head of the DULS	University of Delhi, Delhi		011- 27666034	0120- 6544754	09811287864	011-27666034 (telefax)	
Ş.	Prof. Shabahat Hussain shabahat12@rediffmail.com	Professor	Department of Information Science, Aligarh Muslim University, Aligarh		0571 <u>-</u> 2700039	0571- 2400673	9412177121		

Appendix "

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	6.	Dr. Harish Chandra hchandra@iitm.ac.in	Librarian	Central Library, Indian Institute of Technology, Chennai		044- 22578740	044- 22570509	09444004951	
	7.	Dr. S. Venkadesan venkys@gmail.com	Librarian	Indian Institute of Science, Bangalore 560012	 ,	080- 22932408	080- 23603247	09845570931	80-23601653
	8.	Dr. P.V. Konnur <u>pvkonnur@gmail.com</u> <u>konnur@bub.ernet.in</u>	University Librarian	University Library, Bangalore University, Jana Bharati, Bangalore		080- 23215510 080- 22961131	080- 23378131	09449679737	080-23215510
	9 -17-	Dr. (Mrs) A. Amudhavalli <u>Amudh75@yahoo.com</u>	Professor & Head	Dept. of Information Science, University of Madras, Chepauk, Chennai 600 005.		044-2539 9672	044-2845 3343	0944 39 52 474	
13 MAR 1001	10.	Dr. Bhooshan Lal	Ex- Librarian IIT Kanpur		903 Saraswati Vihar Chakkarpur Gurgaon- 122002		0124- 4036903	098-71661600	

- 21(1) The academic performance of a student shall be graded on a ten-point scale following guidelines given in Appendix-B. The letter grades and their equivalent grade points are listed in Table-4.
 - (2) The letter Grades awarded to a student in all the courses (except audit courses) shall be converted into a semester and cumulative performance index called the Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA), to be calculated by following the procedures given in Appendix-A to these regulations.

Academic Performance	Grades	Grade Points
Outstanding	A+	10
Excellent	A	9
Very Good	B+	8
Good	В	7
Average	C+	6
Below Average	C	5
Marginal	D	4
Poor	F	0
Pass in Audit Courses	AP	-
Fail in Audit Courses	AF	-
Incomplete	I	-
Continued Project	X	-
Satisfactory	S	•
Unsatisfactory	U	_

Table-4 Structure of Grading Academic Performance

Explanation :

'F' Grade

The 'F' grades denote poor performance, i.e. failing a course 'F' grade is also awarded in case of poor attendance (see Attendance Rules).

For the other (elective) courses in which 'F' grade has been awarded, the student may take the same course or any other course from the same category. Further, 'F' grade secured in any course stays permanently on the grade card. The weight, of 'F' grade is not counted in the calculation of the CGPA, however, it is counted in the calculation of the SGPA.

In case a student is awarded a failing grade in the major project, he/she shall have to repeat the course in the form of a new project. Such a student will have to work full time on the project for a minimum period of three months and maximum 'B' grade can be awarded to the student.

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AP/AF Grades

These grades are awarded to an audit course as specified in section 30 above. These grades are not counted in the computation of SGPA/CGPA.

'l' Grade

This refers to an 'incomplete' grade, which is required to be converted into a regular letter grade as provided in section 29(1) of Regulations for the UG, IDD, and IMD programmes. The guidelines for the award of 'l' grade are given in Appendix-B3.

'X' Grade

This grade is awarded for incomplete Project/ Dissertation work as per guidelines given in Appendix - B4 and will be converted to a regular grade on the completion of the Project work and its evaluation.

APPENDIX-A

Calculation of Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA)

(i)

S.G.P.A. =
$$\frac{\sum_{i=1}^{n} C_{i} \times p_{i}}{\sum_{i=1}^{n} C_{i}}$$

where

C_i = Number of credits of the ith course of a semester for which SGPA is to be calculated

P = Grade point obtained in ith course.

i = 1,.....n, represent the number of courses in which a student is registered in the concerned semester.

(ii) C.G.P.A. = $\frac{\sum_{i=1}^{m} C_i \times p_i}{\sum_{i=1}^{m} C_i}$

where

i

- C_i = Number of credits of the ith course, upto the semester for which CGPA is to be calculated
- P = Grade point earned in ith course. A grade lower than 'D' (i.e. grade point < 4) in a course shall not be taken into account.</p>
 - = 1,..... m; represent the number of courses in which a student was registered and obtained a grade not lower than 'D' upto the semester for which CGPA is to be calculated.

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General Guidelines for the Award of Grades

The following are the general guidelines for the award of grades:

- (i) All evaluations of different components of a course shall be done in marks for each student.
- (ii) The marks of various components shall be reduced to approved weights (as decided by the DFB/CFB) and / or indicated in the scheme of Teaching and Examination and added to get total marks secured on a 100-points scale. The rounding off shall be done only once and on the higher side.
- (iii) For less than 30 students in a course, the grades shall be awarded on the basis of natural cut-off in the absolute marks (Appendix B1).
- (iv) For 30 or more than 30 students in a course, the statistical method shall be used for the award of grades with or without marginal adjustment for natural cut-off. The salient features of statistical method are given in Appendix-B2.
- (v) The overall distribution of different grades shall be as indicated in the statistical distribution to the extent possible. (Appendix B2)
- (vi) A+ (A Plus) grade shall not be awarded for percentage of marks less than 80 under any circumstance. There will not be more than 10% (rounded off to near integer value) A+ grade.
- (vii) D grade shall not be awarded for percentage of marks less than 35 in any case. Still further, no student having 35% or more marks would be awarded failing grade F.
- (viii) The overall distribution of different grades shall be as indicated in the statistical distribution to the extent possible. (Appendix-BI).
- (ix) The provisional grades shall be awarded by the Coordination Committee of the course consisting of all the teachers involved in that course. The Course Coordinator shall have full responsibility for this purpose.
- (x) The grades so awarded shall be moderated by a Grade Moderation Committee of a Department/ Academic Centre. This committee will finalize the grades and display a copy of the grades awarded on the Notice Board of the Department/ Centre. The grades should be finalized and displayed as per the academic calendar. All the final grades shall be communicated to the Academic Section within seven days from the last date of the End Term Examination. The Chairman, Grade Moderation Committee shall retain the records of all the marks and grades and shall send one copy of all records to the Chairman, DAC.
- (xi) For a student to get passing grade, he/she will have to appear in End-Term Examination.
- (xii) The procedures for evaluation and award of grades for project, training, seminar, group discussion, and comprehensive viva-voce shall be as given in the Appendix E1-E5 of Regulations for the UG, IDD, and IMD programmes.
- (xiv) For Dissertation, each student will be evaluated individually and the grades shall be awarded on the basis of absolute marks (Appendix B-1). The Dissertation shall be presented before a Dissertation Viva-Voce Board consisting of the following, for evaluation.

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- (a) A Nominee of the Head of Department/ Academic Center for each specialization, who shall be the Chairman.
- (b) One nominee of DAC,
- (c) Supervisor(s),
- (d) External Examiner

The distribution of weights for the Dissertation amongst the examiners shall be as follows:

(a) Paper	:10%
(b) Supervisor(s)	:20%

(c)	External	Examiner		:20%
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(d) Viva-Voce Board together :50%

The above weights shall be summed up and converted out of 100 marks. The grades will be awarded on the basis of absolute marks as given in Appendix B-1.

A student securing U (unsatisfactory) grade in the Autumn Semester shall not be awarded final grade higher than B plus (B+) in the Dissertation as a whole at the end of the Spring Semester of fifth year.

APPENDIX - B1

Award of Grades Based on Absolute Marks System

The award of grades based on absolute marks out of 100 shall be made as follows:

Marks		Grades	Marks	
. 91	≤	A+	≤	100
82	5	А	≤	90
73	≤	B+	≤	81
64	≤	В	≤	72
55	5	C+	5	63
46	≤	С	≤	54
35	≤	D	≤	45

Note:

(1) The grade boundaries as indicated above may be marginally adjusted.

(2) The upper and lower limits are subject to limitations of percentage of marks.

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Statistical Method for the Award of Grades

For the award of grades in a course, all component-wise evaluation shall be done in marks. The marks of different components viz., Mid-Term Examinations (MTE), End-Term Examination (ETE), Course Work Sessionals (CWS), and Practical Sessionals (PRS) would be reduced to relative weights of each component as approved by the Senate and added. Marks so obtained shall be out of 100 and the same would be converted to, grades following the guidelines given below:

For 30 or more number of students in a course, the statistical method shall invariably be used, with marginal adjustment for natural cut-off. The mean (\overline{X}) and the standard deviation (σ) of marks obtained of all the students in a course shall be calculated and the grades shall be awarded to a student depending upon the marks and the mean and the standard deviation as per Table given below.

Lower Range of Marks	Grade	Upper Range of Marks
	A+	$> \overline{X} + 1.5 \sigma$
\overline{X} + 1.0 σ <	Α	$\leq \overline{X} + 1.5 \sigma$
\overline{X} + 0.5 σ <	B+	$\leq \overline{X} + 1.0 \sigma$
- 	В	$\leq \overline{\overline{X}} + 0.5 \sigma$
$\overline{X} - 0.5 \sigma <$	C+	$\leq \overline{X}$
\overline{X} -1.0 σ <	С	$\leq \overline{X} - 0.5 \sigma$
$\overline{X} - 1.5 \sigma <$	D	$\leq \overline{X} - 1.0 \sigma$
	F	$\leq \overline{X} - 1.5 \sigma$

Awards of Grades Using Statistical Method

APPENDIX -B3

Award of 'l' Grade

(a) If a student is absent during End-Term Examination/ Mid-Term Examination of a course due to medical reasons or other special circumstances, he/she may apply for the award of 'l' grade to the Chairman, DAC through the Course Coordinator and the Program Coordinator, provided that he/she has attended 75% of the classes held.

The concerned Course Coordinator shall have to be convinced about the extraordinary circumstances and shall have to certify the attendance record before this rarely used option to award 'l' grade is recommended. The Chairman DAC may award 'l' grade.

(b) The 'l' grade so awarded shall be notified by the Department/Centre to which the student belongs and a copy of the notification will be endorsed to the Academic Section and to the concerned Course Coordinator (e.g., the notification for 'l'

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grade of a Chemical Engineering student will be, notified by the Department of Chemical Engineering on the recommendation of the concerned Course Coordinator, even if the course pertains to another Department/Academic Centre).

- (c) The 'I' grade shall be converted into a proper letter grade not exceeding 'B' and shall be sent to the Academic Section within one month from the date on which the End-Term Examination is over and the requirements of the course are completed by the student.
- (d) in extraordinary circumstances, the period of conversion of 'l' grade may be extended to the next semester, with the approval of the Dean, Academic Studies on his own or on the recommendation of the Course Coordinator and the Head of the Department /Centre to which the student belongs.
- (e) In extra-ordinary circumstances, on the recommendation of the Dean, Academic Studies, the Director may order the award of 'I' grade to a student/class or a batch of students taking a particular course. The conversion of 'I' grade into a regular grade or any other action shall be as per the directive of the Director.

APPENDIX- B4

Award of 'X' Grade

A student who is unable to complete his/her Project/Dissertation before the last date of submission may be awarded an 'X' grade on the recommendation of an Evaluation Committee consisting of (I) The nominee of the Head of the Department/ Academic Centre for each specialization, who shall be the Chairman (ii) Nominee of the DAC; and (iii) The Supervisor(s) of the Project/Dissertation. The student concerned shall have to present his/her work to the Evaluation Committee for the Project/Dissertation, before the date of registration to the next semester.

A student who has been awarded an 'X' grade shall be required to formally register for the next Semester and pay the requisite fees. A student may be awarded 'X' grade only once.

'X' grade will be awarded in exceptional circumstances beyond student's/supervisor's control. Normally, the following grounds may be considered for the award of 'X' grade:

- (a) Medical grounds to the satisfaction of the Institute Medical Officer and the approval of the Dean, Academic Studies.
- (b) Technical reasons/grounds such as the Supervisor/ equipment not being available.

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Appendix 'F[~] Item No. Senate/28.2.5

Proposal for

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Dual Degree B.Tech – M.E.Sc. Program

between 🗸

Indian Institute of Technology Roorkee Roorkee, Uttarakhand, India

and

The University of Western Ontario London, Ontario, Canada

Prepared by

Dr. Rajiv K. Varma

Associate Professor and Associate Chair- Graduate Electrical and Computer Engineering Department University of Western Ontario

and

Dr. S.P. Gupta Head Electrical Engineering Department Indian Institute of Technology Roorkee

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Preamble

 This proposed program emanates from the "Memorandum of Understanding for International Research Collaboration" signed between University of Western Ontario (UWO) and Indian Institute of Technology Roorkee (IITR), in January 2005. Please see Appendix 1. The Indian Institutes of Technology are the top ranking engineering institutions of national importance in India. IIT Roorkee is one of the seven IITs. UWO is recognized as one of the top research intensive universities in Canada.

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- 2) This program will enable select top-ranking students from IIT Roorkee to simultaneously obtain a Bachelor in Technology (B.Tech.) from IIT Roorkee and a Masters in Engineering Science (M.E.Sc.) degree from UWO.
- 3) The proposed dual degree program will initially apply for Electrical Engineering in the Power Systems Engineering research area (encompassing Power Electronics). It may be extended in future to other areas of specialization and in other faculties of Engineering also.
- 4) This dual degree program will be based on the pattern of the Accelerated MESc in Faculty of Engineering at UWO. This program will enable selected students to obtain their M.E.Sc. within one year of the completion of their undergraduate degree requirements from IIT Roorkee.
- 5) This program will lead not only to the top students from the IITR to gain rich academic experience from both IITR and UWO but will also lead to research collaboration between the faculty members at both these institutions, through these students.

Dual Degree Program

- 6) Every year about 250,000 grade 12 students appear in a highly competitive examination "Joint Entrance Examination (JEE)" for admission to the undergraduate engineering programs in the seven IITs. About 3000 students (1.2%) are selected which are divided into the seven IITs. Each IIT thus gets about 0.17% of the students appearing the JEE.
- 7) IIT Roorkee has recently instituted an Integrated Dual Degree (IDD) Programme in several disciplines. One of these IDD programs leads to the award of the following degrees for successful students at the completion of their fifth year

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B.Tech.(Electrical Engg.) + M. Tech. (Power Electronics)

The approved Course Structure for all the 10 semesters of the IDD programme is attached in Appendix 2. The courses in FOURTH YEAR are organised as CORE COURSES and DEPARTMENTAL ELECTIVES, the details of which are attached in Appendix 3. There are no courses in the FIFTH YEAR of this IDD program.

- 8) Students admitted under the IDD program at IITR may apply at the end of their their 5th semester (two-and -half years) for admission to the proposed dual degree program at UWO. The applications will be screened at IITR and subsequently forwarded to UWO. To be accepted into this dual degree program, applicants must have an average grade of 7.8% or higher (from their 2nd and 3rd years).
- 9) The selected students will be invited to UWO as visiting students in the summer term at the end of their 6th term to work on their MESc project under the supervision of a UWO faculty member. A corresponding faculty member will be identified at IITR who will cosupervise the student in the MESc research project at IITR after the student's return to IITR.
- 10)The selected students will be paid a stipend of CAD \$5000, to cover their international travel, stay, health insurance, etc. at UWO during their summer term stay in London. This amount may come from the research grant of the supervising Professor at UWO and may, though not necessarily, have a subsidy component from the Dean, Faculty of Engineering. The status of these students will be visiting/exchange students from Universities with whom UWO has MOUs.
- 11)Upon their return to IITR, the student will complete two credit research project (in place of training seminar) spread over the fourth year at IITR under the cosupervision of the pre-identified faculty member from IITR.
- 12)The student may complete at least one Masters level elective course at IITR. The courses shall be mutually agreed upon between IITR and UWO.
- 13)Overall the student must have an average grade of 7.80 in the third and fourth year at IITR to be eligible for scholarships at Western in the fifth year at UWO. The student must also meet the necessary English language proficiency requirements of UWO.
- 14) Immediately upon completion of the fourth year studies at IITR, the student will travel to UWO to complete the fifth year of studies.
- **15)**The cost of travel, visa, etc. will be borne by the student. IITR may wish to provide some subsidy to the student for this purpose.

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- 16)At this point the student will be considered as full time UWO student enjoying all scholarships, privileges and benefits, as an international UWO student may be eligible for. The fundable students (having an average grade of 7.80 and higher) will be eligible to receive a scholarship of \$ 23,000 per year. This will include Western Engineering Scholarship, Teaching Assistantship and Research Assistantship. The student will be required to pay regular international fee according to UWO norms.
- 17)The student will be required to complete at least two graduate courses at UWO in the fifth year. The total number of graduate courses needed for the M.E.Sc. program at UWO are four.
- 18)UWO will agree to give credit for the Master's courses done by the student at ITR in the fourth year. In reciprocity, ITR will give credit for the Masters courses and the thesis research done by the student at UWO in the fifth year.
- 19)Any publications resulting from the M.E.Sc. thesis of the student may have co-authorship of faculty members from UWO and IITR based on their contribution to the research work.
- 20) The student will not pay any tuition fee to UWO during the summer term at the end of the third year at UWO.
- 21)Upon, successful completion of the fifth year program at UWO, the student will be awarded the M.E.Sc. degree in Electrical and Computer Engineering from UWO and simultaneously the B.Tech degree from IITR.
- 22)If the student fails to fulfill the requirements of B.Tech. at IITR and M.E.Sc. at UWO, no degree will be provided to him.
- 23)If the student fails to return to UWO after completion of the fourth year from IITR, no degree will be provided by IITR. However, the student can return CAD \$5000 paid to him as a stipend during training to complete fifth year at IITR. Hence, this dual degree program provides either two degrees together or no degree at all.
- 24)The dual degree program will admit up to 5 students every year in the Electrical and Computer Engineering program.
- 25)It is expected that in future this dual-degree program will be extended to other Departments as well.
- 26) The dual degree program may commence from the summer of 2009.

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Electrical Engineering	Department, II	T Roorkee
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Comparison of teaching schemes of 5-year IDD (Integrated Dual Degree) programs of (a) IIT Roorkee and (b) proposed IIT Roorkee-University of Western Ontario (IITR-UWO) in Electrical Engineering

	Year	Semester	Duration		· ,				IITR-UWO IDD	
				Code	Course Title	CRDS	L	T	P	Studies at IITR
- 1				MA 101	Mathematics –I	4	3	1	0	(Same as given in the previous columns)
- {				CY 101	Chemistry	5	3	1	2	enuitins)
_ [ļ	1 st	Aug-Dec	EC 102	Fundamentals of Electronics	4	3	1	2/2	
	[-	mug-Du	CE 101	Engineering Graphics	4	2	0	4	
				MI 101	Thermodynamics	3	2	1	0	
				CE 102	Environmental Studies	2	2	0	0	
				HS 102	Behavioral Science	2	2	0	0	
				MA 102	Mathematics –II	4	3	1	0	
- 1	1			PH 101	Physics-I	5	3	1	2	
	[EE 101	Electrical Science	4	3	1	2/2	
				EC 101A	Computer Systems &	4	3	0	2	
		- 94			Programming					
]	2""	Jan – May	EC 101B	Fundamentals of Object	4	3	0	2	
)	1				Oriented Programming					
				MI 102	Manufacturing Techniques	3	2	0	2	
				BT 101	Fundamentals of	2	2	0	0	
· [· ·				Biotechnology					
ļ				HS 101	Technical Communication	2	1	0	2	
- [PH 201	Physics- Il	3	3	0	0	Studies at IITR
				MT 201A	Material Science- A	4	3	1	0	(Same as given in the previous columns)
				BM 201	Management Concepts and	3.	2	1	0	
1]			CH 201	Fizcuces Exercise Reserves and	-			_	
1	1	3'"	Aug-Dec		Conversion	2	2	0	0	
	1			FF 201	Network Theory	4	2			
- [FE 203	Flectrical Measurements and	4 .	2	1	- 0	
- (, i		measuring instruments	-		Ů	2	
1	2			EE IE I	Institute Elective, I	7	2	1	0	
				CE 201	Computer Aided Graphics	2	1	â		
				HS 201	Economics	3	2	ĭ	ก็	
j	1		-	EE 202	Electrical Machines- I	5	3	l î l	2	
1				EE 204	Electromagnetic Field Theory	3	2	1	ō	· ·
.	1	4 th	Jan - May	EE 206	Power Electronics	4	3	1	2/2	
				EE 208	Digital Electronic Circuits and	4	3	1	2/2	
Į				Į	Systems					
		L	L	EE IE2	Institute Elective- II	3	2	1	0	

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Year	Semester	Duration	(IITR IDD		IITR-UWO IDD			
			Code	Course Title	CRDS	II.	T	P	Studies at IITD
)			EE 301	Power System Engineering	4	3	1	2/2	(Same as given in the province only)
			EE 303	Electrical Machines -II	s i	3	l î	2	(Same as given in the previous columns)
	zth	A	EE 305	System Engineering	3	5	li	ñ	
	3	Aug-Dec	EE 307	Microprocessors & Peripheral	5	Ĩ	Î	2	
[Devices		[]	Í		
			EE 309	Applied Instrumentation	3	2	1	2/2	
3			EE IE3	Institute Elective- III	3	2	1	0	
1			EE 302	Power System Analysis &	4	3		2/2	
				Control]				
}			EE 306	Control Systems	5	3	1	2	
{ :	6 ^m	Jan - May	EE 308	Electronic Instrumentation	3	2	1	2/2	
			EE 310	Communication Skills	2	0	2	0	
			EE 567	HVDC Systems	4	3	11	0	
L			EE IE4	Institute Elective-IV	4	3	1	0	
, s	ummer	June-July	Internship a	s per IITR practice				•	Para li tra di compa
	ternship				· · · · · · · · · · · · · · · · · · ·				Research Internship at UWO
} ·			EE 401	Protection and Switchgear	4.	3	0	2	Studies at IITR
1			EE 540	Advanced Power Electronics	4	3	1	2/2	(Same as given in the previous columns)
1	7 ¹⁶	Aug-Dec	EE 341	Electric Drives-1	4	3	1	2/2 •	
1		-	EE 405	Iraining & Seminar	2	0	2	. 0	NOTE
· ·			EE ELEI	Departmental Elective-I	4.	3		0	
4			EE IES	EACTED :	4	13		0	Selected student(s) will do a project of 2 credits in place
j –			EE 534	FACIS Devices	4	3		0	of EE405: Training & Seminar
		·	EE 503	Madalling Simulation 8	4	1		2/2	· · ·
	8''	Jan - May	EE JUJ	Evolutionary Techniques	د ا	13	0	2/2	
			FF FI F2	Departmental Flacting II*			Ι.		
	[<i>*</i>	EE ELE3	Departmental Elective- II				0	
	Summer			Departmental Dicenve- III	<u>├</u>				
	Following		EE 500	Gaminar				_	Students interest AFR on the survey of
	8 th	June- July	EE 504	Research Project		N.		U.	
5	semester		EE 506	Dissertation				0	
	9%	Aug-Dec		- Index matrices		ľ	ľ		
1	10 th	Jan - Mav	EE 506	Dissertation	1 20	1	1		
L					L 40	1 V		v	

Electrical Engineering Department, IIT Roorkee

* List of Departmental Electives (Electrical Engineering Department, IIT Roorkee) given in Annexure-I * Teaching Scheme of 9th and 10th Semesters to be followed at UWO given in Annexure-II Note: Code – Subject Code, CRDS – Credits, L – Lecture, T – Tutorial, P – Practical

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S. No.	Code	Course Title	CRDS	L	T	P
1.	EE-606	Digital Image Processing	4	3	1	0
2.	EE-607	Digital Design with VHDL	4	3	1	2/2
3.	EE-608	Digital Control Systems	4	3	1	0
4.	EE-609	Substation Automation	4	3	1	0
5.	EE-610	Power System Deregulation	4	3	1	0
6.	EE-611	Embedded Controllers	4	3	1	0
7.	EE-522	Biomedical Instrumentation	4	3.	1	0
8.	EE-523	Process Instrumentation & Control	4	3	1	0
9.	EE-524	Telemetry & Remote Control	4	3	1	0
10.	EE-530	Power System Instrumentation	4	3	1	0
11.	EE-532	Intelligent Sensors & Instrumentation	4	3	1	0
12.	EE-544	Microprocessor Controlled Electric Drives		3	1	0
13.	EE-546	Design of Electric Drives	4	3	1	0
14.	EE-547	Instrumentation in Electric Drives	4	3	1	0
15.	EE-551	Topologies of Enhanced Power Quality AC/DC Converters	4	3	1	0
16.	EE-552	Switch Mode Power Supply	4	3	1	0
17.	EE-553	Power Quality Improvement Techniques	4	3	1	0
18.	EE-555	CAD of Power Apparatus	4	3	1	0
19.	EE-561	EHV AC & DC Transmission	4	3	1	0
20.	EE-568	Power System Reliability	4	3	1	0
21.	EE-585	Advanced Computer Controlled Systems	4	3	1	0
22.	EE-586	Data Management	4	3	1	0
23.	EE-587	Data Structures	4	3	1	0

List of Departmental Electives (Electrical Engineering Department, IIT Roorkee)

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Note: Code - Subject Code, CRDS - Credits, L - Lecture, T - Tutorial, P - Practical

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Year	Semester	Duration	Code	Course Title	CRDS
	Summer Following 8 th Semester	May – Aug	ECE	Dissertation	8
5 th	Oth	San Dag	ECE	Elective- I	4
	9	Sep - Dec	ECE	Elective II	4
	1 O th		ECE	Dissertation	12
		Jan – Apr	ECE	Elective III	4
	10		ECE	Seminar	0 (Pass/Fail)
	·	May – Aug	ECE	Dissertation	16

Teaching Scheme of 9th and 10th Semesters to be Followed at UWO

** List of Departmental Electives (University of Western Ontario (UWO), Canada)

- 1. ES 521a/b- Fault-Tolerant Control Systems
- 2. ECE 537b Advanced Digital Control Systems
- 3. ES 584a/b- Non-Linear Systems & Control
- 4. ES 585a/b- Computer-Based Power System Protection
- 5. ES 605a/b- High Frequency Power Electronic Converters
- 6. ES 630a/b Control, Instrumentation and Electrical Systems in Nuclear Power Plants
- 7. ES 646 Electrostatic Theory and Engineering Applications
- 8. ES 657a Modeling and Control of Power Electronic Converter Systems
- 9. ES 658a/b- Random Signals, Adaptive and Kalman Filtering

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- 10. ES 659a/b- Linear Systems and Modern Control Theory
- 11. ES 760a/b Computational Electromagnetics

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9 MAR 2009
Program Code: 10 B. Arch.

Department: AR Department of Architecture

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Year:

	· · · · · · · · · · · · · · · · · · ·		7	Contact Hours/Week			Exam Duration		Relative Weight (9				(%)	
S. No.	ວິ Subject ເກ່ Code Course Title		Subject Area	Credits	L	Т	Р	Theory	Practical	CWS	PRS	MTE	ETE	PRE
		Seme	ster-I (Au	tumr	1)	·	L	L	L					
1.	MA-101	Mathematics-I	BSC	4	3	1	0	3	0	25	-	25	50	-
	EC-101A	Computer Systems & Programming												
2.	EC-101B	Fundamentals of Object Oriented	ESC	4	3	0	2	3	0	15	15	30	40	· -
		Programming		l	l	l		ļ						l
3.	MI-102	Manufacturing Techniques	ESC	3	2	Ō	2	2	0	15	15	30	40	-
4.	BT-101	Fundamentals of Biotechnology	GSC	2	2	Ō	0	2	0	15	-	35	50	-
5.	HS-101	Technical Communication	HSSMC	2	1	0	2	2	0	25		25	50	
6.	AR-101	Basic Design and Model Making	DCC	4	1	0	6	0	3		50	20		30
7.	AR-103	Architectural Graphics-I	DCC	4	1	0	6	3	0	-	50	20	30	-
ļ	[Total	<u>}</u>	23	13	1	18			l	L		[L
L									<u> </u>					
 	T	Sem	ester-II (S	pring)			, 		····			r	_
1.	MA-102	Mathematics-II	BSC	4	3	1	0	3	0	25	Ļ	25	50	<u> </u>
2.	CE-102	Environmental Studies	GSC	2	2	0	0	2	0	15		35	50	<u> </u>
3.	HS-102	Behavioral Science	HSSMC	2	2	0	0	2	0	15	<u> </u>	35	50	<u> -</u>
4.	AR-102	Architectural Design-I	DCC	4	1	0	6	0	7	-	60	20	-	20
5.	AR-104	Architectural Graphics-II	DCC	4	1	0	6	0	3	-	50	20	-	30
6.	AR-106	Introduction to Building Materials and Construction-I	DCC	3	1	0	4	4	0	50	-	20	30	-
7.	AR-108	Principles of Architecture	DCC	3	2	1	0	2	0	25	-	25	50	-
8.	AR-110	Colour Fundamentals and Its Applications	DCC	2	1 1	0	2	0	2	-	50	20	_	30

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Total

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Appendix 'G' Item No. Senate/28.2.6

Program Code: 10 B. Arch.

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Department: AR Department of Architecture

Year:

	Teaching Scheme				C Hou	onta Irs/W	ct /eek	Exam Duration		Relative Weight (%				(%)
S. No.	ວ Subject code Code		Subject Area	Credits	L	т	Ρ	Theory	Practical	CWS	PRS	MTE	ETE	PRE
		Seme	ster- III (Ai	utum	n)		·····	•		·	<u> </u>	•	•	
1.	CE-201	Computer Aided Graphics	ESC	2	1	0	2	2	0	-	25	25	50	
2.	BM-201	Management Concepts and Practices	HSSMC	3	2	1	0	2	0	25	-	25	50	-
3.	AR-201	Architectural Design-II	DCC	5	1	2/2	6	0	7 ·	-	60	20	-	20
4.	AR-203	Building Construction-II	DCC	3	1	0	_ 4	0	4	-	50	20	-	30
5.	AR-205	Climatology in Architecture	DCC	3	2	1	0	2	0	25	-	25	50	-
6.	AR-207	Measured Drawing Camp	DCC	2	0	0	2	0	0	-	100	-	-	- 1
7.	CE-291	Introduction to Geomatic Techniques	DCC	4	3	0	3	3	3	15	15	15	40	15
8.	AR-IE1	Institute Elective-I	BGSEC	3	2	1	0	2	2	25	-	25	50	-
		Total		25	12	6	15							[
		Seme	ster-IV (S	pring	3)									
1.	HS-201	Economics	HSSMC	3	2	1	0	2	0	25	-	25	50	
2.	MT-201B	Material Science-B	ESC	4	3	1	0	3	_0_	25	-	25	50	-
3.	AR-202	Architectural Design-III	DCC	5	1	2/2	6	0	7		60	20	-	20
4.	AR-204	Building Construction-III	DCC	3	1	0	_4	0	4	-	50	20		30
5.	AR-206	History of Architecture-I	DCC	3	2	1	0	2	0	25	-	25	50	-
6.	CE-292	Theory of Structures-I	DCC	4	3	1	0	3	0.	25	-	25	50	
7.	AR-IE2	Institute Elective-II	BGSEC	3	2	1	0	2	0	25	_	25	50	-
L	1	Total	·	25	14	6	10]		[

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Program Code: 10 B. Arch.

Department: AR Department of Architecture

Year:

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Teaching Scheme					Contact Hours/Week			Exam Duration		Relative Weight (%)				%)
S. No.	Subject Code Course Title		Subject Area	Credits	L	Т	Ρ	Theory	Practical	CWS	PRS	MTE	ETE	PRE
		Sen	nester-V (A	<u>\utur</u>	nn)									
1.	AR-301	Architectural Design-IV	DCC	5	1	2/2	6	0	7	-	60	20		20
2.	AR-303	Building Construction-IV	DCC	3	1	0	4	0	4	-	50	20	-	30
3.	AR-305	Quantity, Pricing and Accounts	DCC	3	2	1	0	2	0	25	~	25	50	-
4.	AR-307	History of Architecture-II	DCC	3	2	1	0	2	0	25	~	25	50	_
5.	CE-391	Theory of Structures-II	DCC	3	2	1	0	2	0	25	-	25	50	-
6.	AR-ELE1	Departmental Elective-I	DEC	3	2	1	0	2	0	25	-	25	50	-
7	AR-IE3	Institute Elective-III	HSSMEC	3	2	1	0	2	0	25		25	50	
		Total		23	12	6	10							L
		Sei	<u>mester-VI (</u>	Sprir	<u>ig)</u>		·					.		
1.	AR-302	Architectural Design-V	DCC	5	1	2/2	6	0	7		60	20		20
2.	AR-304	Contemporary World Architecture	DCC	4	3	1	0	3	0	25		25	50	-
3.	CE-392	Structural Design-I	DCC	4	3	1	0	3	· 0	25	-	25	50	
4.	CE-393	Introduction to Foundation Engineering	DCC	3	2	1	0	2	0	_25_		25	50	
5.	CE-394	Building Services	DCC	3	2	1	0	2	0	25	-	25	50	-
6.	6. AR-ELE2 Departmental Elective-II		DEC	3	2	1	0	2	0	25	-	25	50	
7.	AR-IE4	Institute Elective-IV	HSSMEC	3	2	1	0	2	0	25	-	25	50	-
		Total		25	15	7	6					L'		

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Program Code:	10	B. Arch.	

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Department: AR Department of Architecture

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				Contact Hours/Week			Exam Duration		Relative Weight (%)				%)	
S. No.	ວັ Subject ເກັ່ Code Course Title		Subject Area	Credits	L	T	Ρ	Theory	Practical	CWS	PRS	MTE	ETE	PRE
		Sei	mester- VII	(Autu	imn)	·								
1.	AR-400	Training	DCC	2	0	2	0	0	0	100	_	-		
2.	AR-401	Architectural Design-VI	DCC	5	1	2/2	6	0	7	-	60	20	-	20
3.	CE-401	Construction, Planning and Management	DCC	4	3	1	0	3	Ō	25	-	25	50	-
4.	CE-491	Structural Design-II	DCC	4	3	1	0	3	0	25	-	25	50	-
5.	EE-441	Building Technology-I	DCC	3	2	1	0	2	0	25	-	25	50	
6.	AR-ELE3	Departmental Elective-III	DEC	3	2	1	0	2	0	25	-	25	50	-
7.	AR-IE5	Institute Elective-V	ESEC	4	3	1	0	3	0	25	-	25	50	_
		Total		25	14	8	6						<u> </u>	
	,	Se	mester-VII	l (Spr	ing)	· · · · · · · · · · · · · · · · · · ·	·					, <u> </u>	·	<u>, </u>
1.	AR-402	Architectural Design-VII	DCC	5	1	2/2	6	0	7	-	60	20	-	20
2.	AR-404	Finishes, Materials and Specifications	DCC	3	2	1	0	2	0	25	-	25	50	-
3.	AR-406	Landscape Architecture	DCC	3	2	0	3	0	3		50	20	-	30
4.	AR-408	Group Discussion	DCC	2	0	2	0	0	0	100	-			-
5.	MI-429	Building Technology-II	DCC	3	2	1	0	2	0	25		25	50	-
6.	AR-ELE4	Departmental Elective-IV	DEC	3	2		0	2	0	25	-	25	50	
7.	AR-IE6	Institute Elective-VI	ESEC	4	3	1	0	3	0	25		25	50	-
	ļ	Total		23	12	7	9							

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Program Code:	10	B. Arch.
Department:	AR	Department of Architecture
Year:	ν	

	Teaching Scheme				Contact Hours/Week			Exam Duration		Relative Weight (%)				
S. No.	ວ Z Subject Code Code		Subject Area	Credits	L	Т	Р	Theory	Practical	CWS	PRS	MTE	ETE	PRE
		Semes	ster-IX	(Autu	mn)									
1.	AR-501	Project	DCC	8	0	0	16	0	0	-	50			50
2.	AR-503	Town Planning Design	DCC	3	2	0	2	0	3	-	50	20	-	30
3.	AR-505	Housing	DCC	3	2	1	0	2	0	25		25	50	-
4.	AR-507	Professional Practice, Valuation and Arbitration	DCC	3	2	1	0	2	0	25	-	25	50	-
5.	AR-ELE5	Departmental Elective-V	DEC	3	2	1	0	2	0	25	-	25	50	-
		Total		20	8	3	22							
	Semester-X (Spring)													
{	Professional Training													

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Credit Requirement

Department Existing Grand Total	224+15(ECA)=239
Department Proposed Grand Total	23+24+25+25+23+25+25+23+20=213+11(ECA)=224
IIT Proposed Grand Total	210-225

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List of Departmental Electives

S.No.	Code	Title								
		Departmental Elective-I								
1.	AR-309	Solar Architecture								
2.	AR-311	Fire Protection and Security System								
3. AR-313 Prefabrication and Modular Coordination										
	Departmental Elective-II									
1. AR-308 Ekistics										
2.	AR-310	Acoustics and Lighting								
3.	AR-312	Applied Art								
Departmental Elective-III										
1.	AR-403	Vastu Shastra and Vernacular Architecture								
2	AR-405	Resource Conserving Architecture								
3.	AR-407	High Tech. Building								
4.	AR-409	Modern Indian Architecture								
		Departmental Elective-IV								
1	AR-410	Design of New Structural Systems								
2.	AR-412	Design of M.S. Building								
3.	3. AR-414 Futuristic Architecture									
	Departmental Elective-V									
1	AR-509	Interior Design								
2.	AR-511	Urban Design								
3	AR-513	Architectural Conservation								

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NAME OF DEPTT./CENTRE :	DEPARTME SCIENCES	NT OF HUMANITIES & SOCIAL
1. Subject Code: IHS-01	Course Title:	Introduction to IPRs
2. Contact Hours: L: 2	T: 1	P: 0
3. Examination Duration (Hrs.):	Theory	2 Practical 0
4. Relative Weightage: CWS 2	5 PRS 0	MTE 25 ETE 50 PRE 0
5. Credits: 3 6. Set	mester: Both	7. Subject Area: HSSMEC

9. Objective:

8. Pre-requisite:

Nil

To introduce the basic concepts of Intellectual Property Rights and their practical application.

10. Details of Course:

S.No.	Contents	Contact Hours
1.	Basic Concepts of Intellectual Property Rights: Patent; copyright; trademark; geographical indications; industrial design; plant varieties	4
2.	International agreement and treaties: Group of treaties on basic standards of IP protection; WTO and GATT agreements; WIPO, PCT and TRIPS treaties.	4
3.	Contemporary Issues in Economic Benefits of Intellectual Property Protection: Traditional knowledge; IPR in expression of culture; Globalization of markets; Technology transfer; Valuation of IP	5
4.	Protection of Intellectual Property Rights at National and International Level: Protection of IPR; Indian patent laws and amendments; International patent laws; Implications of international trade law;	5
5.	Enforcement of IPR: Infringement Acts; TRIPS and enforcement ; IPR litigation and settlement of disputes	5
6.	Intellectual Property Protection in Practice: Patent applicability of a work; patentability analysis; patent search; patent writing; drafting; patent filing; procedure for obtaining patents; protection of rights; protection of claim and interest	5
	Total	42

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S. NO.	Name of Authors / Books / Publishers	Year of Publication/ Reprint
1.	"Universal Law Publication: Patent Act 1970 along with Patent Rules". Universal Law Pub. Co. Pvt. Ltd.	2005
2.	"Commercial Law Publication: The Trade Marks Act 1999 with Trade Mark's Rules 2002"; Commercial Law Pub.	2004
3.	Dutfield, Graham, "Intellectual Property Biogenetic Resources and Traditional Knowledge", ed. Earthscan	2004
4.	Cook, Curtis, "Patents, Profits & Power – How Intellectual Property Rules the Economy", ed. Kogan Page	2002
5.	Sender, Marta, P. Cross, "Border Enforcement of Patent Rights", ed. Oxford U. Press	2002
6.	Bainbridge, David, "Intellectual Property", ed. Pearson Education Ltd.	2002

1 9 MAR 2009

NAME OF DEPTT./CENTRE :	: DEPARTMENT OF HUMANITIES & SOCIAL SCIENCES	
1. Subject Code: IHS-02	Course Title: Psyc	hological Basis of Behaviour
2. Contact Hours: L: 2	T: 1	P: 0
3. Examination Duration (Hrs.):	Theory 2	Practical 0
4. Relative Weightage: CWS 2	5 PRS 0 MTE	25 ETE 50 PRE 0
5. Credits: 3 6. Ser	nester: Both	7. Subject Area: HSSMEC

8. Pre-requisite:

Nil

9. Objective:

To introduce the students to the concept of Psychology and various cognitive processes for understanding and predicting the behavior of people.

10. Details of Course:

S.No.	Contents	Contact Hours
1.	Introduction to Psychology: its application and methods	3
2.	Principles of learning: Classical conditioning and instrumental conditioning	4
3.	Memory and forgetting, types of memory and theories of forgetting	3
4.	Thinking, concept formation and problem solving	3
5.	Motivation: Difference among drives, needs and motivation. Theories of motivation. Two-Factor Theory, ERG Theory, etc	4
6.	Perception and individual decision-making: Perception and its relevance in behavior, factors influencing perception and principles of perception.	4
7.	Personality: Role of nature and nurture on its development, theories for personality development.	4
8.	Intelligence : Assessing intelligence, individual differences in intelligence, theories of intelligence	3
	Total	28

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S. No.	Name of Authors / Books / Publishers	Year of Publication/ Reprint
1.	Morgan, C.T. "Introduction to Psychology", 7 th Ed., Tata Mcgraw Hill, 24 th reprint	2004
2.	Fred Luthans. "Organizational Behavior", 10 th Ed., McGraw-Hill	2004
3.	Robert A. Baron and Donn Byrne, "Social Psychology", 10 th Ed.	2004
4.	Stephen P. Robins. "Organizational Behavior", 10 th Ed., .Prentice Hall of India Pvt. Ltd.	2004
5.	Robert A. Baron "Psychology", 5 th Ed., Prentice Hall of India Pvt. Ltd.	2003

1 9 MAR 2009

NAME OF DEPTT./CENTRE :	DEPARTME Social Sc	NT OF HUMANITIES & IENCES
1. Subject Code: IHS-03	Course Title:	Group Dynamics
2. Contact Hours: L: 2	T: 1	P: 0
3. Examination Duration (Hrs.):	Theory	2 Practical 0
4. Relative Weightage: CWS 2	5 PRS 0	MTE 25 ETE 50 PRE 0
5. Credits: 3 6. Ser	nester: Both	7. Subject Area: HSSMEC

8. Pre-requisite: Nil

9. Objective:

To familiarize the students with the functioning of individuals in group situation.

10. Details of Course:

S.No.	Contents	
1.	Introduction to groups and organization: types of groups and their functions and importance for individual and society.	4
2.	Group Process: conformity, deviance, cohesiveness, cooperation and competition	7
3.	Interpersonal attraction and social relationships: attraction as cognitive justification and measurement issues.	3
4.	Group Communication: social networks and rumors and grapevine	3
5.	Interactive Behavior: conflict and resolution strategies. transactional analysis.	4
6.	Individual and group problem-solving, their relative effectiveness	3
7.	Social influence, impression management, social perception and attribution	4
	Total	28

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S. No.	Name of Authors / Books / Publishers	Year of Publication/ Reprint
1.	Luthans, F. Organizational Behavior, McGraw-Hill Book Co.	1985
2.	Michner, H.A, Delamater, J.D and Schwartz, S.H. Social Psychology, Harcourt Brace Jovanovich Publishers.	1986
3.	Robert A. Baron, & Donn Byrne. "Social Psychology" (10 th Ed.)	2004
4.	Pandey, J.Basic and Applied Psychology, Sage Publications, India, Pvt Ltd.	1988
5.	Stephen P. Robbins. 'Organizational Behavior'' (10thEd.). Prentice-Hall of India. Pvt. Ltd.	2004
6.	Semin,G.R and Fiedler,K.Applied Social Psychology, Sage publications, India Pvt Ltd.	1996

1 9 MAR 2009

NAME OF DEPTT./CENTRE :	DEPARTMENT OF SOCIAL SCIENCE	HUMANITIES & S
1. Subject Code: IHS-04	Course Title: Indus	trial Sociology
2. Contact Hours: L: 2	T: 1	P: 0
3. Examination Duration (Hrs.):	Theory 2	Practical 0
4. Relative Weightage: CWS 25	PRS 0 MTE	25 ETE 50 PRE 0
5. Credits: 3 6. Sem	nester: Both	7. Subject Area: HSSMEC

8. Pre-requisite: Nil

9. Objective:

To seek a better understanding of how industrialization has changed the basic structures of Indian and world society and focus on the benefits & the problems of industrialization.

10. Details of Course:

S.No.	Contents	Contact Hours
1.	Introduction to Sociology: sociological imagination, context for development of sociology and industrial sociology, the two revolutions and their socio- economic and industrial implications	5
2.	Types of production systems, industrialisation and post industrial society	6
3.	Organization Theories: Max Weber, F. W. Taylor, human relations approach	4
4.	Human behaviour at work: group dynamics	3
5.	Trade unionism in India: different kinds of trade unions, theories of labour movement, labour movements in India	3
6.	Recent trends in work and industry, features of software industry in India, mcdonaldisation of society, future of work	3
7.	Age and gender discrimination in industry: concepts and issues, social exclusion in Indian MNCs: reflections	4
	Total	28

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S. No.	Name of Authors / Books / Publishers	Year of Publication/ Reprint
1.	Giddens, Anthony, "Sociology", Polity Press, 5 th Ed.	2006
2.	Ritzer, George, "The McDonaldisation of Society" in Sociological Odyssey, edited by Patricia Adler and Peter Adler, Wardsworth	2001
3.	Leicht, Kevin, "Future of Work" in Sociology for a New Century, edited by York Bradshaw, Joseph F. Healy and Rebecca Smith, Pine Forge Press	2001
4.	Jodhka, Surinder S. and Katherine Newman, "In the name of Globalisation" in Economic and Political Weekly, Issue 41, Volume 38	2007
5.	Bell, Daniel, "Welcome to the Post-Industrial Society" in Physics today	1976
6.	Greenberg, Gerald & Robert. A. Baron, "Group Dynamics and Team Work" in Behaviour in Organisations: Understanding and Managing the Human Side of Work, 6 th Ed., Prentice Hall	1997

1 9 MAR 2009

NAME OF DEPTT./CENTRE : **DEPARTMENT OF HUMANITIES &** SOCIAL SCIENCES Course Title: Modern Drama 1. Subject Code: IHS-05 2. Contact Hours: T: 0 P: 0 L: 3 3 Practical 0 3. Examination Duration (Hrs.): Theory MTE 35 50 PRE 4. Relative Weightage: CWS PRS 0 ETE 15 0 5. Credits: 3 6. Semester: Both 7. Subject Area: HSSMEC Nil 8. Pre-requisite:

9. Objective:

To orient the students of science and technology towards some of the major human problems of the modern world as taken up by the great dramatists.

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10. Details of Course:

S.No.	Contents	Contact Hours	
1.	Introduction: beginning of drama; what is modern drama; perspectives on drama.	6	
2.	The social significance of modern drama; modern drama: the rhetoric of theatre; the art of character delineation & individual presentation; figures of speech in dialogue – hyperbole; ornamental part of language		
3.	Individual Texts – Discussion of minimum three plays shall be taken up in detail. The prescribed plays at present are : 1.Shaw, George Bernard : Candida 2.Miller, Arthur : Death Of a Salesman 3.Karnad, Girish : Tughlaq The above mentioned plays may be changed as per the needs of the students.	10x3 = 30	
	Total	42	

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S. No.	Name of Authors / Books / Publishers	Year of Publication/ Reprint
1.	Abbotson, C.W. Susan, "Thematic Guide to Modern Drama"	2002
2.	Buse Peter, "Drama + Theory: Critical Approaches to Modern British Drama"	2003
3.	Bigsby, C.W.E., "A Critical Introduction to Twentieth Century American Drama", Vol1. 1990-1940	2005
4.	JSTOR, "Perspective on Indian Drama"	2004

1 9 MAR 2009

NAME OF DEPTT./CENTRE :	DEPARTMENT OF SOCIAL SCIENCE	HUMANITIES & S
1. Subject Code: IHS-06	Course Title: India	n Novel in English
2. Contact Hours: L: 3	T: 0	P: 0
3. Examination Duration (Hrs.):	Theory 3	Practical 0
4. Relative Weightage: CWS 15	5 PRS 0 MTE	35 ETE 50 PRE 0
5. Credits: 3 6. Sen	nester: Both	7. Subject Area: HSSMEC

8. Pre-requisite:

Nil

9. Objective:

The course aims at enhancing students' receptivity to perennial human values through an in-depth study of the prescribed novels.

IV. Dotano VI Compo.	1	0.	Details	of	Course:
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S.No.	Contents	Contact Hours
1.	Development of the novel as a genre of literature. Studying the novel and its different aspects—plot, characters, fantasy vs realism, prophecy, rhythm, and technique.	6
2.	Novel and society. History of Indian English Novel. The three Big figures. Development during 1980s. Recent trends.	6
3.	 Individual texts—Discussion of minimum three novels shall be taken up in detail. The novels being taken up at present are: <i>i</i>. Ghosh, Amitav, <i>The Calcutta Chromosome</i> ii. Narayana, R.K, <i>The Guide</i> iii. Deshpande, Shashi, <i>Roots and Shadows</i> The novels may be changed as per the needs of the students. 	10x3= 30
	Total	42

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S. No.	Name of Authors / Books / Publishers	Year of Publication/ Reprint
1.	Forster, E.M., "Aspects of the Nove", Atlantic Publishers	2001
2.	Naik, M.K, "Indian English Literature-1980-2000", Pencraft International	1992
3.	Nabar, Vrinda, "Caste as Woman", Penguin Books	1985
4.	Lodge, David, "The Art of Fiction", Penguin Books	1993
5.	Butalia, Urvashi, "The Other Side of Silence", Duke University Press	2000

1 9 MAP 2009

NAME OF DEPTT./CENTRE :	DEPARTMENT SCIENCES	OF HUMANITIES & SOCIAL
1. Subject Code: IHS-07	Course Title: EC	onomics of Industrial Strategy
2. Contact Hours: L: 2	T: 1	P: 0
3. Examination Duration (Hrs.):	Theory 2	Practical 0
4. Relative Weightage: CWS 2	5 PRS 0 MT	E 25 ETE 50 PRE 0
5. Credits: 3 6. Ser	nester: Both	7. Subject Area: HSSMEC
8. Pre-requisite: HS-201		· .

9. Objective:

To familiarize students with the economic basis of firm behaviour (strategy) in oligopolistic (imperfectly competitive) industries and discuss issues relating to Indian industries.

10. Details of Course:

S.No.	Contents	Contact Hours
1.	Introduction: Structure-Conduct-Performance (SCP) paradigm; modern developments and relevance of industrial policy.	2
2.	Monopoly Power and Industry Concentration: monopoly power and its policy implications; industry concentration indices.	3
3.	Oligopolistic Industries: competition in quantities and in prices; cartels and collusion.	4
4.	Game Theory and Strategic Behavior: basic concepts; firm entry, accommodation and exit; barriers to entry; predatory and limit pricing.	10
5.	Industry and Technology: strategic adoption of innovations; technology diffusion and absorption.	4
6.	Regulation and Indian Industries: pricing in regulated industries; India's industrial policy and reforms; MRTP Act; competition policy; competitiveness	5
	Total	28

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S.	No.	Name of Authors / Books / Publishers	Year of Publication/ Reprint
	1.	Jean-Jacques Laffont and Jean Tirole, "A Theory of Incentives in Procurement and Regulation", The MIT Press	. 1993
	2.	Krueger Anne O., "Economic Policy Reforms and the Indian Economy", (Ed.), Oxford University Press	2002
	3.	Eric Rasmussen, "Games and Information: An Introduction to Game Theory", Third Ed., Blackwell	2001
	4.	Avinash K. Dixit and Susan Skeath, "Games of Strategy", W.W. Norton & Company.	19 99
	5.	Dilip Mookherjee, "Indian Industry: Policies and Performance", Themes in Economics series, Oxford University Press.	19 95
	6.	Stephen Martin, "Industrial Economics: Economic Analysis and Public Policy", Second Ed., Prentice Hall.	1993

1 9 MAR 2009

NA ME OF DEPTT./CENTRE :

DEPARTMENT OF HUMANITIES & SOCIAL SCIENCES

1. Subject Code: IHS-08	Course Title:	Entrepreneurship Development Strategies
2. Contact Hours: L: 2	T: 1	P: 0
3. Examination Duration (Hrs.):	Theory	2 Practical 0
4. Relative Weightage: CWS 25	5 PRS 0	MTE 25 ETE 50 PRE 0
5. Credits: 3 6. Sem	nester: Both	7. Subject Area: HSSMEC
8. Pre-requisite: NIL		

9. Objective:

The objective of the course is to help the students to understand concept and importance of entrepreneurship and to develop necessary skills in them to cope with the rigors of an entrepreneur.

10. Details of Course:

S.No.	Contents	Contact Hours
1.	Entrepreneurial Motivation Development: Entrepreneurial Motivation Training (EMT) Lab, Propositions, Objectives of EMT, Exercises for Entrepreneurship Motivation Training	8
2.	Source of help for Entrepreneurs: Identification and Selection of Good Business Opportunity: Search for an opportunity and selecting the right product, market Survey and research, Techno-economic feasibility Assessment: Preliminary Project Report (PPR).	4
3.	Raising Money for Your Venture: Sources of Finance, Your Business Plans: Detailed Project Report (DPR), Presenting Your Case for a Term Loan	3
4.	Establishing Your Venture: Selecting Right infrastructure, Buying machinery, Sources of Technology and its Evaluation, Recruiting the Right people, project Implementation	3
5.	You and Your Market: Marketing Management for Small Business, Selling and Sales Promotion	1
6.	Managing for Production and Productivity: Production Management	2

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S.No.	Contents	Contact Hours
7.	Managing Your Scarce Resources ' FINANCE': Management of Working Capital, Costing, Break-even Analysis: Concept and Implications for planning and Decision making	3
8.	Knowing Your Directions: Management in Small Scale Enterprise, Book Keeping, Financial Accounting for Technical Entrepreneurs, Guidance norms for new entrepreneurs	2
9.	Plans for Survival, Case Studies	2
	Total	28

S. No.	Name of Authors / Books / Publishers	Year of Publication/ Reprint
1.	A Handbook for New Entrepreneurs, Entrepreneurship Development Institute of India (EDII), Oxford University Press	2003
2.	Developing New Entrepreneurs, Entrepreneurship Development Institute of India (EDII)	2000
3.	Trainers' Manual on Developing Entrepreneurial Motivation, National Institute for Entrepreneurship & Small Business Development	2000
4.	Narula, Gurmeet, "The Entrepreneurial Connection", Tata McGraw-Hill Publishing Company Ltd.	2001

19 MAR 2009

NAME OF DEPTT./CENTRE :	DEPARTMENT OF SOCIAL SCIENCE	HUMANITIES & S
1. Subject Code: IHS-09	Course Title: Scien	ce, Technology and Society
2. Contact Hours: L: 2	T: 1	P: 0
3. Examination Duration (Hrs.):	Theory 2	Practical 0
4. Relative Weightage: CWS 2	5 PRS 0 MTE	25 ETE 50 PRE 0
5. Credits: 3 6. Sen	nester: Both	7. Subject Area: HSSMEC

8. Pre-requisite: Nil

9. Objective:

To provide a basic understanding and an in-depth discussion of issues that fall under broader spectrum of inter-relationship between science, technology and society.

10. Details of Course:

S.No.	Contents	Contact Hours	
1.	Introduction to Sociology, sociological imagination, the two revolutions and their socio-economic, technological and scientific implications		
2.	Social significance of science and technology, ideas beyond technology, perspectives on relations between science and technology	4	
3.	Sociological perspective on scientific knowledge: Karl Marx, Emile Durkheim and Karl Mannheim's Sociology of knowledge.	5	
4.	Merton's approach to science and technology: ethos of science, Matthew effect in Science, Thomas theorem and Matthew effect	4	
5.	Thomas Kuhn's notions of paradigm and paradigm-based science, scientific community and growth of scientific knowledge	3	
б.	Science in India: science and technology policies in India; scientific communities and their linkages, national and international. science and	5	
7.	Ethics in science & engineering, environment and science and technology	3	
	Total	28	

1 9 MAR 2009

S. No.	Name of Authors / Books / Publishers	Year of Publication/ Reprint
1.	Frederic A.Lyman: Opening Engineering Students 'Minds to Ideas Beyond Technology. IEEE Technology and Society Magazine, Fall, p.16-23.	2002
2.	John Theodore Rivers: Technology and the Use of Nature. Technology in Society, 25 (3), August, p. 403-416.	2003
3.	Robert K. Merton: The Matthew Effect in Science: The reward and communication systems. Science, 159(3810), January 5, p. 56-63.	1988
4.	Robin Williams and David Edge: The social shaping of technology. Research Policy, Volume 25, Issue 6, September 1996, p. 865-899.	1996
5.	Ronald R Kline: Using History & Sociology to Teach Engineering Ethics. IEEE Technology and Society Magazine, Winter, p. 13-20.	2002
6.	V.V. Krishna: A portrait of the scientific community in India: Historical growth and contemporary problems, Gaillard et al. (eds). Scientific Communities in the Developing World, Sage	1997

1 9 MAR 2009

NAME OF DEPTT./CENTRE :	DEPARTMENT OF	F HUMANITIES & ES
1. Subject Code: IHS-10	Course Title: Film	and Literature
2. Contact Hours: L: 2	T: 1	P: 0
3. Examination Duration (Hrs.):	Theory 2	Practical 0
4. Relative Weightage: CWS 2	5 PRS 0 MTE	25 ETE 50 PRE 0
5. Credits: 3 6. Sen	nester: Both	7. Subject Area: HSSMEC
8. Pre-requisite: NIL		

9. Objective:

To introduce the politics of adapting/adopting the literary texts into cinematic texts through internationally acclaimed literary texts and their cinematic counterparts.

10.	Detail	s of	Course:
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S.No.	Contents	Contact Hours
1.	Contemplating novel and film as popular cultural forms. Studying generic connections between novel and film by identifying and analyzing common	4
2.	Discussing the elements of literature internalized by cinema, the development of the cinematic language as visual narration.	3
3.	Literary texts into films: The politics and poetics of adaptation/adoption.	3
4.	Examining adaptation as reinterpretation, the issues of translating timeless literary classics for a topical scenario.	3
5.	In depth study of selected works of literature and their cinematic adaptations. Training students to comprehend the major issues of the literary origin of the	12
6.	Future of Literature and Film.	3
	Total	28

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19 MAR 2009

S. No.	Name of Authors / Books / Publishers	Year of Publication/ Reprint
1.	Boyum, Joy Gould, "Double Exposure: Fiction into Film", Seagull Books.	1989
2.	Bluestone, George, "Novels into Film", The John Hopkins Univ. Press.	2003
3.	Thorman, Sue., "Feminist Film Theory: A Reader", Edinburgh Univ. Publications	1999
4.	Mandal, Somdatta, "Film and Fiction: Word into Image", Rawat.	2005
5.	Stam, Robert, "Film Theory: An Introduction", Oxford, Blackwell.	2000
6.	Desai, Jigna., Beyond Bollywood, 'The Cultural Politics of South Asian Diasporic Film", Routledge.	2004

1 9 MAR 2009

NAME OF DEPTT./CENTRE :	DEPARTMENT (SOCIAL SCIEN(OF HUMANITIES & CES
1. Subject Code: IHS-11	Course Title: Ide Lit	entity and Contemporary erature
2. Contact Hours: L: 2	T: 1	P: 0
3. Examination Duration (Hrs.):	Theory 2	Practical 0
4. Relative Weightage: CWS 2	5 PRS 0 MT	E 25 ETE 50 PRE 0
5. Credits: 3 6. Sen	nester: Both	7. Subject Area: HSSMEC
8. Pre-requisite: HS-201		

9. Objective:

To sensitize students to various issues of identity through internationally acclaimed literary texts and acquaint them with contemporary literary theories.

10	. Detai	ls of Co	ourse:

S.No.	Contents	Contact Hours
1.	Introduction to issues related to identity in literature and identifying cultural, national and gendered identities.	3
2.	Discussing identities in flux, identities shaped by opposing forces of culture, identities of the cultural interstices, hybridity and marginalization.	3
3.	Treatment of the cultural dilemma faced by various ethnic and cultural groups.	3
4.	Use of innovative literary devices such as myths, magical realism and the supernatural element.	3
5.	In-depth analysis of each of the literary texts included in the course through the medium of current literary theories. Examine the narrative techniques, symbols,	12
6.	The significance, implications and impact of such writing and the role it plays in the formation of culture.	4
	Total	28

1 9 MAR 2009

S. N 0.	Name of Authors / Books / Publishers	Year of Publication/ Reprint
1.	Bhabha, Homi, "Location of Culture", Routledge.	1994
2.	Loomba, Ania, "Colonialism/ Post colonialism", Routledge.	1998
3.	Said, Edward. Culture and Imperialism. Vintage. 1994.	1994
4.	Ahmad, Aijaz. In Theory: Classes, Nations, Literatures. OUP.	1992
5.	Mongia, Padmini Ed. Contemporary Postcolonial Theory : A Reader.OUP.	1996
6.	Ashcroft, Bill, Gareth Griffiths and Helen Tiffin. The Empire Writes Back: Theory and Practice in Post-Colonial Literatures. Routledge.	1989

19 MAR 2009

Item No. Senate/28.2.8 Recommendations regarding review of the post B.Tech. / B.Arch / M.Sc. A PG Programmes incorporating the suggestions from different departments

- 1. PG course, if required, may have tutorials as decided by the department.
- 2. The credits for seminar, project and dissertation be reduced to 2, 4 and 20 respectively similar to revised IDD programmes. Project component in the programme may be held in the form of a laboratory/design course, where students may be assigned projects/design problems instead of conducting the laboratory classes based on a set of experiments. There should be regular evaluation for this.
- 3. The number of theory subjects should not be more than 5 in each semester of first year.
- 4. One course on mathematics must be taught in each programme/ specialization. In order to take care of the needs of different departments, there may be more courses on mathematics (six instead of four) available to the departments. The syllabus of these courses may be decided by the Department of Mathematics in consultation with different departments. However a course on modeling & simulation / computer applications / advanced programming be included in the new structure as a part of Major Core. If required for each PG specialization of the department, a separate course can be designed for this.
- 5. There should not be any major elective in the first semester as it is difficult for any student to select electives just in the beginning of the semester. In general, the major elective is imposed as a compulsory course because the teaching load etc. is decided in the previous semester. In the first semester only core courses pertaining to specialization (Major) should be included.
- 6. Most of the students currently come from private engineering colleges and keeping in view the technology trend, they should have option to gain knowledge in another area The purpose of minor elective is to strengthen their fundamentals in the related field. Therefore, there should be two minor electives in each programme. In the first semester core courses will be

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- 12. The evaluation of project and seminar should be completed before the end of third semester.
- **1**3. The evaluation of M.Tech. Dissertation should take place in the following manner:

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- (a) The mid term as well as final evaluation of dissertations will be done by an examination board consisting of all the members of the concerned academic area/group. The external examiner may be invited, if available. In case such academic groups do not exist in the department, a board of 3 to 4 members belonging to the broad academic area may be constituted, including the supervisor for each student. This examination board will carry out mid-term and final evaluation of each student. Chairman of these boards should be common for at least 5 students so that uniformity in evaluation is possible.
- (b) The student will be evaluated for mid term evaluation in the month of December before the closing of autumn semester and this part of evaluation will carry 25% weight. Student will be assessed on the basis of work done.
- (c) The student would submit his/her dissertation in spiral bound form on April 30 and viva-voce examination will be held before mid May and this part of evaluation will have a weight 50%. The student will note the observations of the examination board and will submit the final dissertation report incorporating all suggestions by June 30 in hard bound form.
- (d) During the period between viva-voce examination and June 30, the student will also write a research paper and communicate the same for publication if not done earlier. In some cases, it may be possible to get the review report on the research paper. A certificate to this effect will be submitted by the student while submitting the final copy of dissertation.
- (e) The examination board will award remaining marks (25% weightage) to all the students of the same academic group and thereafter the grades will be awarded. This work will be done after the final submission of dissertation, i.e., June 30, and will be completed by July 10.

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available for each specialization and one minor elective may be taken from one of the other specialization in the first semester to serve as core for the minor specialization. The second minor course should be taken from electives of the same specialization in second semester.

- 7. In the first semester there should be a mathematics course, core courses from the area of specialization & a course from minor specialization.
- 8. In the second semester there should be only major and minor electives so that the student can specialize in a particular sub area and overcome his weaknesses.

SI. No.	Course Components	Proposed Credits
1.	Advanced Course in Mathematics	4
2.	Programme Core including a course on Simulation &	9-16
	Modelling / Computer Applications /Advances in	
	Programming	
3.	Programme Electives (Major Specialization Electives)	12-16
4.	Open Electives (Minor Specialization Courses)	6-8
5.	Course on Technical Communication (optional)	2
6.	Project / Project based lab. Courses	4-6
7.	Seminar	2
8.	Dissertation	20
	Total	60-70

9. The credits for different component should be as given in the table:

- 10. Supervisors for the seminar, project and dissertation be allotted to students at the end of first semester and topics assigned before the end of second semester examination as per present practice. Seminar report should be submitted by the student at the time of registration for the third semester.
- 11.PG students should deliver seminar as a part of the curriculum. Seminars should be held regularly in the department. Teachers from the department as well as external members should be invited to deliver seminars. P.G. students should attend these seminars so that they learn the art of effective seminar delivery.



APPLICATION FOR COURSES TO BE COMPLETED AND REQUEST FOR CONSTITUTION OF STUDENT RESEARCH COMMITTEE

A.1	Name of the Research Scholar		
	(English)	Enrollment No.	
2.	Department/Centre	·····	

3. Date of Registration _____

4. Status: Full-Time/Part-Time

5. Sponsored/Self finance/IITR assistantship /Assistantship from other sources

6. Tentative Area of Research (Eligibility qualification) and specialization

B.1. Particulars of Proposed Supervisor (s)

Name & Designation	Department/Center /Organization	No. of Students Supervising Excluding this Student and including candidate registered outside IITR			Signature of	
		Single		Jointly		Supervisor
•		With IITR Assistantship	Without IITR Assistantship	With IITR Assistantship	Without JITR Assistantship	

C.1. Total No. of Credits to be completed

(i) Credits are earned if he/she obtains B or higher grade

(ii) Registration is terminated if there are two consecutive U's (Unsatisfactory) grades.

2. Courses proposed to be completed

Semester	Session	Course No.	Title	Credits	Remarks

Certified that the courses as mentioned above have not been taken by me during earlier studies for my Degrees/Diplomas etc.

Dated: _____

Signature of Research Scholar

9 MAR 2009

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Following was discussed by SRC/CRC:							
 (a) Candidate's educational back ground (b) Research Proposal in brief (c) Credits requirements Members of Student Research Committee (SRC) in accordance with Ph.D. Regulation 							
a. Chairman:	b. Internal Expert:						
c. External Expert:	d.Supervisor(s) 1						
	2						
*(Member Experts at (b) and (c) abo or Chairman DRC/CRC from among	ove will be nominated by Head of the Department/Centr ist those proposed by Supervisor (s).	e					
(Chairman DRC/CRC)	· ·						
The SRC/CRC recommends that the omentioned given under col. C.2.	candidate should complete the courses as per detail	s					
Signature of Member(s)							
1. Internal Expert:							
O E temel Europete							
2. External Expert:							
3. Supervisor:							
4. Supervisor							
	·						
CHAIRMAN, SRC	-						
DATED:	HEAD OF THE DEPARTMENT/CENTER						
FOR USE OF ACAD	EMIC RESEARCH SECTION ONLY						
Particulars of the Research Scholar have submitted for approval of the Dean (AR)	e been verified. Recommendations of the SRC/CRC are	9					
Dealing Assistant							
Asst. Registrar (Academic Research)	-64- DEAN (Academic Research)						
	AD2 1 9 MAR 2009						

1. 1.1.1



PROGRESS REPORT OF Ph.D. SCHOLAR FOR AUTUMN/SPRING SEMESTER OF THE SESSION:

1. 2. 3. 4. 5. 6.	Name of the Scholar: (English) Department/Centre Date of Registration(init Status: Full-Time/Part-T Sponsored/Self finance/ Date of Passing the Cor	ial) ime /ITR Assistantship/Assistantship from o mprehensive Examination (wherever ap	Enrollment No stantship from other source on (wherever applicable)		
7.	Area of research (in cap	pital letters)			
	(English)				
	(Devnagari)				
8.	Date of Candidacy of an	oplicant (if applicable)			
9.	Brief report of the work t	for the period from	to		
10	(Please attach on separ	ate sheet)	······································		
10.	Any other monitation re				
Date	ed:		Signature of Student		
-					
PAR	RT B: PERFORMANC /CENTRE	E REPORT AND RECOMMENDAT	TION FROM DEPARTMENT		
PAR	RT B: PERFORMANC /CENTRE RIOD: (FROM	E REPORT AND RECOMMENDAT	TION FROM DEPARTMENT		
PER (a)	RT B: PERFORMANC /CENTRE RIOD : (FROM Performance (Satisfacto	E REPORT AND RECOMMENDAT	TION FROM DEPARTMENT		
PAR PER (a) (b)	RT B: PERFORMANC /CENTRE NOD: (FROM Performance (Satisfacto Recommendations	E REPORT AND RECOMMENDAT	TION FROM DEPARTMENT		
PER (a) (b) 1.	RT B: PERFORMANC /CENTRE RIOD : (FROM Performance (Satisfacto Recommendations	E REPORT AND RECOMMENDAT	TION FROM DEPARTMENT		
PER (a) (b) 1.	RT B: PERFORMANC /CENTRE RIOD : (FROM Performance (Satisfacto Recommendations	E REPORT AND RECOMMENDAT TO ory / Unsatisfactory) 2. Signature of Supervisor (s)	Chairman, SRC/CRC		
PER (a) (b) 1.	RT B: PERFORMANC /CENTRE RIOD : (FROM Performance (Satisfacto Recommendations	E REPORT AND RECOMMENDAT TO ory / Unsatisfactory) 2. Signature of Supervisor (s) Head of the Department/Centre	Chairman, SRC/CRC		
PER (a) (b) 1.	RT B: PERFORMANC /CENTRE RIOD : (FROM Performance (Satisfacto Recommendations	E REPORT AND RECOMMENDAT TO ory / Unsatisfactory) 2. Signature of Supervisor (s) Head of the Department/Centre by student, if he/she obtains a minimum	Chairman, SRC/CRC		
PER (a) (b) 1. Note	RT B: PERFORMANC /CENTRE RIOD : (FROM Performance (Satisfacto Recommendations	E REPORT AND RECOMMENDAT TO ory / Unsatisfactory) 2. Signature of Supervisor (s) Head of the Department/Centre by student, if he/she obtains a minimum tudent is terminated if there are two o	Chairman, SRC/CRC		
PER (a) (b) 1. Note	RT B: PERFORMANC /CENTRE RIOD : (FROM	E REPORT AND RECOMMENDAT TO ory / Unsatisfactory) 2. Signature of Supervisor (s) Head of the Department/Centre by student, if he/she obtains a minimum tudent is terminated if there are two of and progress report to Academic Research	Chairman, SRC/CRC of B grade. consecutive 'U' (unsatisfactory ch Section.		

FOR USE OF ACADEMIC RESEARCH SECTON ONLY

PART A. Checked and the recommendations of the Department/Centre are submitted for consideration of Dean (AR)

Dealing Assistant

Asst. Reg istrar (Academic Research)

Approved/Not Approved

DEAN (Academic Research)

1 9 MAR 2009



(REQUEST BY STUDENT FOR COMPREHENSIVE EXAMINATION)

CHAIRMAN, SRC/CRC

Deptt. / Centre

THROUGH: SUPERVISOR(s)

I have earned the required credit(s) in each Pre Ph. D. Course(s) as per details given below:

	Course No	Semester-	Credit(s)	Grade		
	Title	Session		Obtained		
1.						
2.						
3.						
Date of initi	al registration:					
It is requested that my comprehensive examination may kindly be organized.						
•				· · ·		
	, , , , , , , , , , , , , , , , , , ,		Signat	ure		

Name of Scholar____

Forwarded

Enrolment No.____

Supervisor(s)

Encl: Self attested photocopies of the grade sheet(s).

19 MAR 2009


	DEPARTMENT /CENTRE:
A*	The written comprehensive examination of Mr./MsEnrollment No
	(AM/PM). The Venue of written comprehensive
·	examination is :
B*	The oral comprehensive examination of Mr./MsEnrollment No.
	shall be held onat
	(AM/PM). The Venue of oral comprehensive examination
	is:
C*	Presentation on the proposed research plan of Mr/Ms
	Enrollment Nowill be held onat(AM/PM).
	The venue for the presentation is:
	CHAIRMAN, SRC/CRC
	Copy to:
	1 All mombors of SPC/CPC

All members of SRC/CRC
 Dean (Academic Research)

CHAIRMAN, SRC/CRC

* Note: Delete two out of A, B & C which one hot applicable.





(Report on comprehensive Examination and Candidacy for Ph.D. Degree) (Written and oral)

1.	Nam (Enc	e of the Research Scholar		Enro	llment No						
2.	Dep	artment/Centre									
3.	Com	prehensive Examination:	R	esult							
	(i)	Date of Written Examina	tion:								
		Result of Written Examina	ation: Passed	Failed / To reap	pear after	months					
	(ii)	Date of Oral Examination:				<u></u>					
		Result of Oral Examinatio	n: Passed /	Failed / To reap	pear after	months					
No	te:										
	The of C	student is required to obt	ain at least B gr n	ade in each coi	mponent (Wri	tten and oral)					
4.	Cano	didacy for Ph.D. Degree									
5.	Has	the candidate completed	review work inc	uded the pater	nt search in h	is/her area of					
	rese	arch				Yes/No.					
*	The	SRC considered the researc	h proposal entitle	ed							
	(Cop	y attached)									
*	The	The research proposal is Approved/Not Approved									
	The	The SRC/CRC recommends that the student be accepted as a candidate for Ph.D. work at the									
	Instit	ute on this date (Date of Ca	ndidacy):								
	Mem	ber, SRC/CRC (External Expe	ert)	Member, SRC	CRC (Internal	Expert)					
	Supe	rvisor	Supervisor		Supervis	sor					
Col	py to:-										
1.	All M	embers									
2. ว	The (Candidate (Mr./Ms	. <u></u>)	Chairman,	SRC/CRC					
3. 4.	Dean	(Academic Research)									
			-69-								
				A_							
				WD_	D 1400 2000						
				-	H MAK ZUUS						



PROGRESS REPORT OF Ph.D. SCHOLAR FOR THE CANDIDACY

PART A: TO BE COMPLETED BY THE RESEARCH SCHOLAR (ALL COLUMNS ARE TO BE FILLED)

- 1. Name of the Research Scholar
 - (English)____

Enrollment No.

Ph.D. - VI

- 2. Department/Centre ____
- 3. Date of Initial Registration
- 4. Status: Full-Time/Part-Time_
- 5. Sponsored/Self finance/IITR Assistantship/Assistantship from other source
- 6. Scheme: (Please $\sqrt{\text{Tick}}$)

IITR	CSIR	UGC	PROJECT	QIP	FOREIGN	SELF FINANCING	DEFENCE Services	ANY OTHER(mention)

7. Name (s) of Supervisor (s)

SI. No.	Name	Designation	Department/Center/Organisation
1			
2			
3			

8. Grades obtained in Approved Courses:

SI.No.	Course		Grade	Session/Semester	Department/Center
	No.	Title	Obtained		•
1					
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					l <u></u>

9. Date and Result of Comprehensive Examination: Written _____Oral _____

- 10. Date of Candidacy _____
- 11. Title of Research in English (Limited to 80 characters)

(Devanagari)

12. Any other information regarding work done

Dated:

(Signature of Candidate)

TAR 2009

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PA I THI (a) (b)	RT B: PERFORMANCE AND RECOMMENDATION FR E PERIOD (From date of initial registration Performance (Satisfactory / Unsatisfactory) Recommendation	OM DEPARTMENT/CENTRE FOR _to)
Sig	nature of Supervisor(s)	Signature of Chairman, SRC/CRC
Dat	ted:	
1.	Credits are earned by students, if he/she obtains a min	nimum of B grades.
2.	Registration of a student is terminated if he/she gets to	vo consecutive unsatisfactory (U) grade.
3.	Unless recommended by first week of a month by the student for that month will be released.	Department/Centre, the assistantship of

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PART C. Checked and the recommendations of the Department/Centre are submitted for consideration of Dean (AR)

Dealing Assistant

Asst. Registrar (Academic Research)

Approved/Not Approved

DEAN (Academic Research)

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1 9 MAR 2009



Ph.D. - VII

REPORT OF MID TERM REVIEW / SPECIAL STUDENT RESEARCH COMMITTEE MEETING

(English)		Enrollme	nt No
Department/Centre			
Title of Research in English (Limited to 80 c	haracters))	
Name (s) of the Supervisor (s) 1.			
2.			
3.			
Date of Initial Registration		Status	
Date of Candidacy			
Members of the Student Research Committee	e		
i	ii		
iii	iv		·
V	vi		
vii			
Is the meeting held for Mid Term Review?	•		YES/NO
Period of Performance Review:			
port			
t		<u> </u>	<u> </u>
		·····	
Is it a special Research Committee?			YES/NO
Is there change of topic?			YES/NO
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stification:			
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(B) Is there change of Supervisor (s)?

YES/NO

Deletion of Supervisor(s)

Name & signation	epartment /Center	No. of	of Scholar Sup initial registrat	ervising at tha tion of the Sch	t time olar	No. c	of Scholar Sup	ervising at pre	sent
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		With IITR Assistantship	Without IITR Assistantship	With IITR Assistantship	Without IITR Assistantship	With IITR Assistantship	Without IITR Assistantship	With IITR Assistantship	Without IITR Assistants- hip
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(C)	Whether	case for exte	ension of tim	e				YES/NO	
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	Supervis	or (s)	1	·····	<u></u>	2			
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	i. intern	ai ⊨xpert:							
	2. Extern	al Expert:							
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	•	,					CHAIRMAN	, SRC/CRC	sí
HEA	D OF THE		ENT/CENT	RE	_			-	
DAT	ED:			-73	3-				
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The recommendations of the Department/Centre are submitted for approval of Dean (Academic Research)

Dealing Assistant

Asst. Registrar (Academic Research)

Approved/Not Approved

DEAN (Academic Research)

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19 MAR 2009



Ph.D. - VIII

FINAL REPORT OF THE STUDENT RESEARCH COMMITTEE

1.	Name of the Scholar (English)	Enrollment No.:								
	(Hindi)	·								
2.	Department/Centre									
3.	Status: Full-Time/Part-Time									
4.	Title of Thesis in English (Limite	Title of Thesis in English (Limited to 80 characters)								
	(Dev anagari)									
5.	Name (s) of the Supervisor (s)	1								
		2								
		3								
6.	Date of Initial Registration									
7.	Date of Candidacy									
8.	Members of the Student Resear	ch Committee								
	i	іі								
	iii	iv								
	V	vi								
_	vii	Vili								
9. (a)	Recommendation of the student Research Committee Work is satisfactory, and									
	(i) The title of the thesis remains unchanged is reworded for clarity as specified below (Capital									
	letters limited to 80 characters) (English)								
	(Devnagari)									
		-75-								
		1 9 MAR 2009								

(ii) Suggestions	ade
Panel of Exami	rs from India
Name	Telephone No.
Designation	Fax. No.
Address	E-Mail Address
<u>.</u>	Publication/Reference of Bibliography
Name	Telephone No.
Designation	Fax. No
Address	E-Mail Address.
	Publication/Reference of Bibliography
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Designation	Fax. No
Address	E-Mail Address
	Publication/Reference of Bibliography
Name	Telephone No.
Designation	Fax. No.
Address	E-Mail Address.
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Address	E-Mail Address.
	Publication/Reference of Bibliography

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t.	Name	Telephone No
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		E Mail Address
		E-Mail Address
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(\mathbf{C})	likelV	submission	date of	i thesis:
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SRC/CRC certifies that the names given above are actively involved in Research. The concerned cand idate has submitted 8 copies of synopsis (Not exceeding five pages) and electronic version (C.D.)

Sign ature of Member(s)

1. Internal Expert:

2. External Expert:

3. Supervisor:_____

4. Supervisor_____

5. Supervisor_____

CHAIRMAN, SRC/CRC

DATED:

HEAD OF THE DEPARTMENT/CENTRE

(Note: All members of SRC/CRC should sign on each page of the Final report & list of Examiners)

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APPROVED/NOT APPOINTED

DEAN (Academic Research)

(a) Reworded topic of thesis may be accepted.

(b) Board of Examiners may please be appointed.

Dealing Assistant

Asst. Registrar (Academic Research)

Approved Priority-wise

DEAN (Academic Research)

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1 9 MAR 2009



SPECIFICATIONS FOR THESIS

- The thesis shall be typed or printed on 21 cms ×28 cms size paper. No hand written thesis will be accepted.
- 2. The thesis shall be bound in card sheet paper of 18.6 kg. Weight of cover page with soft binding (size 22 cms × 29 cms) in green colour. The name of the candidate, the degree and the year shall be printed in gold on the cover and the bound edge.
- 3. The thesis shall be typed on both side with 1 ½ spacing with a margin of 3.5 cms on the left
 2.5 cms on the top and 1.25 cms on the right and bottom.
- 4. The thesis must contain the following copyright certificate in the beginning of the thesis, on a separate page on the left side:

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- 5. In a thesis, the title page should be given first, then the certificate by the candidate and the supervisors followed by an abstract of the thesis not exceeding 1500 words. This should be followed by acknowledgement and a table of contents.
- 6. The references should be given at the end of the thesis preferably in alphabetic order of the authors' names.
- 7. In the body of the text, a reference should be indicated by a number in parenthesis such as [5]. These references should be listed giving (i) the author's name and his initials (ii) the title of the paper and the name of the journal (iii) the name of the book and the publisher (iv) the number of volume, page numbers and the year of publication. Standard abbreviations may be used in the names of the journals.
- 8. The diagrams should be all in ink or should be printed on a light background. Tabular matter should be clearly arranged. Decimal points may be indicated by a full-stop.

Note: Soft copy of the thesis on R-CD should also be submitted after final viva-voce examination.

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INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

SUBMISSION OF THESIS FOR DOCTOR OF PHILOSPHY

1. N	lame of the Research Scholar:			
	(English)	Enrollment No		
	(Hindi)			
2.	Department/Centre			
3.	Date of Initial Registration			
4.	Status: Full-Time/Part-Time			
5.	Sponsored/Self finance/IITR Assistantship/Assistantship from other source			
6.	Date of Thesis Submission	7. Date of Final SRC		
8;	Title of Research in English			
	(Devanagari)			
9.	Name of Supervisor/Co-supervisor:.13	2		
10.	Address of Correspondence:			
	Phone No. with STD Code	E.mail ID		
		Signature of Research Scholar		
Countersigned :				
Signature of Supervisor(s)		Signature of Chairman, DRC/CRC		
Head of the Department/Centre				
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