



**NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA
SURATHKAL**

MINUTES
OF
TWENTY SECOND MEETING OF
BOARD OF STUDIES

Date : 05.10.2012(Friday)
Time : 02.00 PM
Venue : Board Room,
N.I.T.K., Surathkal,
Post Srinivasnagar,
PIN - 575 025.

Minutes of the Twenty second combined Board of Studies (UG, PG, Research) Meeting held on 05th October, 2012 at 02.00 p.m. in the Board Room, NITK, Surathkal.

Members Present:

1. Dr. Sumam David	...	Chairman
2. Dr. K. C. Shet	...	Member
3. Dr. Lakshman N	...	Member
4. Dr. Gopal Mugeraya	...	Member
5. Dr. DVR Murthy	...	Member
6. Dr. Subha Rao	...	representing the Dept. of AM
7. Dr. A. U. Ravishankar	...	Member
8. Dr. Aruna	...	Member
9. Dr. V.S. Ananthanarayana	...	Member
10. Dr. G.C. Mohan Kumar	...	Member
11. Dr. Gangadharan K. V.	...	Member
12. Dr. Narendranath	...	Member
13. Dr. Chitharanjan Hegde	...	Member
14. Dr. Murulidhar	...	Member
15. Dr. Udayashankar	...	Member
16. Dr. A. H. Sequeira	...	representing the Dept. of HSM
17. Dr. Vidya Shetty	...	Member
18. Dr. K. Narayana Prabhu	...	Member
19. Dr. G. S. Dwarakish	...	Member
20. Dr. Jagannath Nayak	...	Member
21. Dr. Subhash C. Yaragal	...	Member
22. Dr. M. Govinda Raj	...	Member
23. Dr. Lillykutty Jacob	...	External Member
24. Mr. K. Ravindranath	...	Secretary

Members Absent:

1. Dr. G. Umesh	...	Member
2. Dr. K. N. Lokesh	...	Member
3. Dr. Y. Suresh Kumar	...	Member
4. Dr. V. Ramachandra	...	External member
5. Prof. N. B. Ballal	...	External member
6. Prof. K. B. R. Varma	...	External member

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Minutes of Twenty second BOS meeting held on 05.10.2012

The Chairman (BOS) and Dean (Academic) chaired the meeting and welcomed all the members to the **Twenty First BOS meeting** and thanked the outgoing members and introduced new BOS members.

The minutes of **Twenty First BOS** meeting was reviewed and approved as there were no comments received from the members.

ITEM No: 22-BOS - 1:

Equivalent Courses for the subjects prior to 2012 curriculum, in the revised 2012 B.Tech curriculum:

- a) **Electrical and Electronics Engg(EE) -**
The BOS resolved to approve the Equivalent Courses for the subjects prior to 2012 curriculum, in the revised 2012 B.Tech curriculum in Electrical and Electronics Engineering. The details are enclosed as **ANNEXURE-I(a), PAGE NO.6-7.**
- b) **Computer Science and Engg(CS) -**
The BOS resolved to approve the Equivalent Courses for the subjects prior to 2012 curriculum, in the revised 2012 B.Tech curriculum in Computer Science and Engineering. The details are enclosed as **ANNEXURE-I(b), PAGE NO.8-9.**
- c) **Electronics and Communication Engg(EC)-**
The BOS resolved to approve the Equivalent Courses for the subjects prior to 2012 curriculum, in the revised 2012 B.Tech curriculum in Electronics and Communication Engineering. The details are enclosed as **ANNEXURE-I(c), PAGE NO.10.**
- d) **Mining Engg(MN) –**
The BOS resolved to approve the Equivalent Courses for the subjects prior to 2012 curriculum, in the revised 2012 B.Tech curriculum in Mining Engineering. The details are enclosed as **ANNEXURE-I(d), PAGE NO. 11-12.**
- e) **Applied Mechanics and Hydraulics(AM) –**
The BOS resolved to approve the Equivalent Courses for the subjects prior to 2012 curriculum, in the revised 2012 B.Tech curriculum in Applied Mechanics and Hydraulics. The details are enclosed as **ANNEXURE-I(e), PAGE NO. 13.**

*For Senate
Approval*

- f) **Mechanical Engg –**
The BOS resolved to approve the Equivalent Courses for the subjects prior to 2012 curriculum, in the revised 2012 B.Tech curriculum in Mechanical Engineering. The details are enclosed as **ANNEXURE-I(f), PAGE NO. 14.**
- g) **Metallurgical and Materials Engg(MT) –**
The BOS resolved to approve the Equivalent Courses for the subjects prior to 2012 curriculum, in the revised 2012 B.Tech curriculum in Metallurgical and Materials Engineering. The details are enclosed as **ANNEXURE-I(g), PAGE NO. 15-16.**
- h) **Chemical Engg(CH) –**
The BOS resolved to approve the Equivalent Courses for the subjects prior to 2012 curriculum, in the revised 2012 B.Tech curriculum in Chemical Engineering. The details are enclosed as **ANNEXURE-I(h), PAGE NO. 17.**
- i) **Information Technology(IT) –**
The BOS resolved to approve the Equivalent Courses for the subjects prior to 2012 curriculum, in the revised 2012 B.Tech curriculum in Information Technology. The details are enclosed as **ANNEXURE-I(i), PAGE NO. 18-19.**
- j) **Civil Engg(CV) –**
The BOS resolved to approve the Equivalent Courses for the subjects prior to 2012 curriculum, in the revised 2012 B.Tech curriculum in Civil Engineering. The details are enclosed as **ANNEXURE-I (j), PAGE NO. 20-21.**

The DUGCs were requested to make corrections suggested by the BOS. The Chairman BOS was authorized to approve the same and place them before the Senate.

**ITEM No: 22-BOS - 2:
Introduction of Compulsory Course on Life Sciences for I Year B.Tech-**

The BOS felt that the Course on Life Sciences can be offered as an open elective in the higher semesters instead of a common course for I year B.Tech. The Chairman, BOS was authorized to constitute a committee comprising of departmental representatives to draft the course contents, which will be placed in the next BOS meeting.

*Reporting to
Senate*

<p>ITEM No: 22-BOS - 3: Modified and new electives in virtual Instrumentation for M.Tech program–</p> <p>The BOS resolved to approve the addition of new elective course ME826 Experimental Techniques in Vibration Analysis (2-0-2)3 and modification of course ME825 Virtual Instrumentation (2-0-2)3. The details are attached as ANNEXURE-II, Page No.22-23.</p>	<p><i>For Senate Approval</i></p>
<p>ITEM No: 22-BOS - 4: Ph.D level course “Topics in Functional Equations” in Department of Mathematics and Computational Sciences –</p> <p>The BOS resolved to approve the new Ph.D level Course “Functional Equations” in Department of Mathematics and Computational Sciences. The details are attached as an ANNEXURE-III, Page No.24-25.</p>	<p><i>For Senate Approval</i></p>
<p>ITEM No: 22-BOS -5: New Ph.D level course on Advanced Theory of Vibrations in the Department of Mechanical Engg -</p> <p>The BOS resolved to approve the addition of a new Ph.D level course Advanced Theory of Vibrations in Department of Mechanical Engineering. The details are attached as an ANNEXURE-IV, Page No.26.</p>	<p><i>For Senate Approval</i></p>
<p>ITEM No: 22-BOS - 6: Online submission of PhD Thesis to Shodhganga, INFLIBNET, UGC -</p> <p>As per the UGC notification, it is now mandatory to submit the electronic version of the PhD thesis submitted by Researchers in the Universities/ Institutes to Shodhganga INFLIBNET of UGC as it facilitates access to the academic community world-wide.</p> <p>The BOS resolved to approve online submission of Ph.D thesis submitted to NITK to Shodhganga, INFLIBNET, UGC after completion of viva-voce and to modify the Ph.D Thesis format (if required) to be compatible for online submission. IPR policy related to Ph.D thesis is to be evolved by Institutes.[ANNEXURE-V, Page No.27-33]</p>	<p><i>For Senate Approval</i></p>

ITEM No: 22-BOS - 7:

Inclusion of Additional Guide to Full -Time Research Scholars –
The Department of Civil Engineering

ITEM No: 22-BOS - 8:

Taking Scientists/R&D Engineers as guides for Ph.D Dessertations–
The Department of Metallurgical and Materials Engineering.

*Reporting to
Senate*

The Chairman BOS was authorized to constitute a committee to look into the Ph.D regulations regarding inclusion of Additional Guide for Full time Research Scholars, which will be placed in the next BOS meeting.

ITEM No: 22-BOS - 9:

Increase in Institute scholarship for Ph.D programmes

The BOS resolved to approve to increase the number of scholarships for fulltime Ph.D scholars from 50 to 100 per year with effect from the Academic year 2012-13. The admission process for the Research Scholars shall be done during Jun/July session and Dec/Jan session.

*For Senate
Approval*

Details of intake are as follows:

OC	OC PH	OBC	OBC PH	SC	SC PH	ST	ST PH	TOTAL
49	01	26	01	15	01	07	00	100

The Secretary (BOS) proposed the vote of thanks to the chair and to the members.



(K. Ravindranath)
Secretary –BOS, NITK

11.10.2012



(Dr. Sumam David S)
Chairman-BOS, NITK

11.10.2012

Department of Electrical and Electronics EngineeringNational Institute of Technology Karnataka Surathkal
Mangalore -575025**PROCEEDINGS OF THE DUGC MEETING HELD ON 05TH oct. 2012**

Date: 5-10-2012

AGENDA: As per the circular from the Dean (AA) (Ref No. NITK/AD(UG)/2012/78, Dated 24/09/2012), it is requested to send the list of equivalent subjects(III semester to VIII semesters) in the new curriculum 2012 which shall become applicable to students who were admitted during academic session July- Dec 2011 or earlier, having FA or FF grades

RESOLUTION: DUGC (EE) Resolved to approve the following equivalent subjects (III semester to VIII semesters) in the new curriculum 2012 which shall become applicable to students who were admitted during academic session July- Dec 2011 or earlier, having FA or FF grades

Course numbers in Curriculum prior to 2012 B. Tech Curriculum	Equivalent Course numbers	Credits to be awarded
EE100 Elements of Electrical Engineering (3-1-0) 4	EE110 Elements Of Electrical Engineering (3-0-0) 3	4
EE200 Circuit Theory (3-1-0) 4	EE200 Circuit Theory (3-1-0) 4	4
EE207 Electromagnetic Theory (3-1-0) 4	EE 207 Electromagnetic Theory (3-1-0) 4	4
EE212 Transformer And Induction Machines(3-1-0) 4	EE213 Electrical Machines – I (3-1-3) 6	4
EE223 Electrical Measurements And Measuring Instruments(3-1-0) 4	EE224 Electrical Measurements And Measuring Instruments (3-1-3) 6	4
EE225 Linear Integrated Circuits(3-1-0) 4	EE226 Analog Electronic Circuits (3-1-3) 6	4
EE 215 Signals And Systems(3-1-0) 4	EE256 Signals And Systems (3-1-3) 6	4
EE 257 Synchronous Machine(3-1-0)4	EE258 Electrical Machines – II (3-1-3) 6	4
EE265 Elements Of Power System Engineering – I (3-1-0) 4	EE265 Power System Engineering – I (3-1-0) 4	4
EE275 Digital Electronic Circuits(3-1-0) 4	EE276 Digital Electronic Circuits (3-1-3) 6	4
EE309 Power Electronics (3-1-0) 4	EE308 Power Electronics (3-1-0) 4	4
EE326 Linear And Digital Control Theory (3-1-0) 4	EE326 Linear And Digital Control Theory (3-1-0) 4	4
EE350 Power System Analysis (3-1-0) 4	EE350 Power System Engineering – II (3-1-0) 4	4
EE360 Microprocessors (3-1-0) 4	EE360 Microprocessors (3-1-0) 4	4

(P.T.O.)

EE313 Digital Signal Processing(3-1-0) 4	EE313 Digital Signal Processing(3-1-0) 4	4
EE230 Transformer And Induction Machines Lab(0-0-3) 2	EE230 Transformer And Induction Machines Lab(0-0-3) 2	2
EE241 Electrical Measurements Lab(0-0-3) 2	EE241 Electrical Measurements Lab(0-0-3) 2	2
EE 232 Signals And Systems Lab (3-0-0) 2	EE 232 Signals And Systems Lab (3-0-0) 2	2
EE283 Synchronous Machine Lab (0-0-3)2	EE283 Synchronous Machine Lab (0-0-3)2	
EE292 Analog and Digital Electronics Lab (0-0-3)	EE292 Analog and Digital Electronics Lab (0-0-3)	2



Secretary DUGC



Chairman DUGC

Professor and Head
 Dept. of Electrical & Electronics Engg.
 NATIONAL INSTITUTE OF TECHNOLOGY
 KARNATAKA, SURATHKAL
 Mandalore - 575 025. (D.K.)


DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
NITK - Surathkal

Date: 27-09-2012

Course numbers in Curriculum prior to 2012 B. Tech curriculum	Equivalent course numbers in 2012 curriculum	Credits to be awarded
CO207	*	*
CO200	CO261	(3-0-0) 3
CO201	CO200	(3-1-0) 4
CO202	CO202	(3-1-0) 4
CO203	CO311	(3-0-0) 3
CO204	CO203	(3-1-0) 4
CO205	CO205	(0-0-3) 2
CO206	CO204	(0-0-3) 2
CO250	CO310	(3-0-0) 3
CO251	CO263	(1-0-3) 3
CO252	CO250	(3-1-0) 4
CO253	CO312	(3-0-0) 3
CO254	CO201	(3-1-0) 4
CO255	*	*
CO256	CO352	(1-0-2) 2
CO300	CO252	(3-1-0) 4
CO301	CO301	(3-1-0) 4
CO302	CO262	(3-0-0) 3
CO303	CO300	(3-1-0) 4
CO304	CO254	(0-0-3) 2
CO305	CO303	(0-0-3) 2
CO350	CO350	(3-1-0) 4
CO351	CO251	(3-1-0) 4
CO352	CO367	(3-0-0) 3
CO353	CO253	(3-1-0) 4
CO354	CO351	(0-0-3) 2
CO355	CO255	(0-0-3) 2
CO356	CO302	(0-0-3) 2

CO400	CO313	(3-0-0) 3
CO440	CO440	(0-0-2) 1
CO450	CO362	(3-0-0) 3
CO490	CO390	(0-0-3) 2
CO409	CO469	(3-0-0) 3
CO410	*	*
CO412	CO365	(3-0-0) 3
CO413	CO462	(3-0-0) 3
CO415	*	*
CO417	*	*
CO418	CO360	(3-0-0) 3
CO419	CO465	(3-0-0) 3
CO455	CO415	(3-0-0) 3
CO458	CO412	(3-0-0) 3
CO459	CO461	(3-0-0) 3
CO462	CO468	(3-0-0) 3
CO464	*	*
CO467	CO467	(3-0-0) 3
CO468	CO421	(1-0-3) 3
CO420	CO380	(3-0-0) 3
CO421	CO410	(3-0-0) 3
CO469	CO417	(3-0-0) 3
CO470	CO363	(3-0-0) 3
CO471	*	*
CO472	CO463	(3-0-0) 3
CO449	CO449	(0-0-6) 4
CO499	CO499	(0-0-6) 4
MLC1	CV110	(1-0-0) 1
MLC2	HU111	(1-0-0) 1

* No equivalent subject in 2012 curriculum. Same subject will be offered if there are any students registering for the same or identical course will be offered.


Head of the Department
Head of the Department
 Department of Computer Science & Engineering
 National Institute of Technology Karnataka
 Surathkal, Srinivasnagar (P.O.)
MANGALORE - 575 025

Annexure 1c)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
NITK SURATHKAL

DUGC MEETING

EC-DUGC-MITNG: 19

Agenda:

To Define and Approve Equivalent Subjects for students who have got FF or FA grade in courses which were taught at BTech level before the revision of 2012 BTech (E&C) curriculum and to discuss the inclusion of course on Life Sciences.

Resolution:

1) Resolved to approve the list of Equivalent subjects given in the table below, and submit the same to the Dean (AA), as to include as an agenda for the next BOS meeting.

2) Resolved that a Course on Life Sciences may be offered as an Open Elective.

Ramesh

DUGC Secretary (RAMESH KINIM)

27/9/12

DUGC Chairperson. *Ic HOD*

Subject from curriculum 2009-2011.			Equivalent subject from 2012 curriculum		
EC214	Data Structures and Algorithms	(3-0-0) 3	EC232	Data structures and Algorithms	(3-0-2) 3
HU300	Engineering Economics	(3-0-0) 3	HU300	Engineering Economics	(3-0-0) 3
HU301	Management Theory and Practice	(3-0-0) 3	HU302	Principles of Management	(3-0-0) 3
EC210	Digital Electronics & Computer Architecture	(3-1-0) 4	EC220	Digital Electronics and Computer Architecture	(3-1-0) 4
EC211	Linear Systems and Signals	(3-1-0) 4	EC221	Linear Systems and Signals	(3-1-0) 4
EC212	Electromagnetic Waves	(3-1-0) 4	EC222	Electromagnetic Waves	(3-1-0) 4
EC213	Mathematics for E&C Engg.	(3-1-0) 4	EC224	Mathematics for E&C Engineering	(3-1-0) 4
EC215	Digital Electronics Lab	(0-0-3) 2	EC225	Digital Electronics Lab	(0-0-3) 2
EC216	Linear Systems and Signals Lab	(0-0-3) 2			
EC260	Analog Electronics	(3-1-0) 4	EC223	Analog Electronics	(3-1-0) 4
EC261	Microprocessors	(3-1-0) 4	EC271	Microprocessors	(3-1-0) 4
EC262	Analog Communication	(3-1-0) 4	EC270	Analog Communication	(3-1-0) 4
EC263	Linear Control Systems	(3-1-0) 4	EC282	Control Systems	(3-1-0) 4
EC264	Analog Electronics Lab	(0-0-3) 2	EC226	Analog Electronics Lab	(0-0-3) 2
EC265	Microprocessor Lab	(0-0-3) 2	EC273	Microprocessor Lab	(0-0-3) 2
EC290	Seminar	(0-0-2) 1	EC390	Seminar	(0-0-2) 1
EC310	Linear Integrated Circuits	(3-1-0) 4	EC320	Analog Integrated Circuits	(3-1-0) 4
EC311	Antennas and Propagation	(3-1-0) 4	EC281	Radiating Systems	(3-1-0) 4
EC312	Digital Communications	(3-1-0) 4	EC321	Digital Communication	(3-1-0) 4
EC313	Digital System Design	(3-1-0) 4	EC280	Digital System Design	(3-0-2) 4
EC314	Linear Integrated Circuits Lab	(0-0-3) 2	EC322	Analog Integrated Circuits Lab	(0-0-3) 2
EC315	Basic Communications Lab	(0-0-3) 2	EC323	Communication Lab - I	(0-0-3) 2
EC316	Digital System Design Lab	(0-0-3) 2			
EC360	Microwave Engineering & Optical Communication	(3-1-0) 4	EC371	RF and Microwave Engg.	(3-1-0) 4
EC361	VLSI Design	(3-1-0) 4	EC370	VLSI Design	(3-1-0) 4
EC362	Digital Signal Processing	(3-1-0) 4	EC272	Digital Signal Processing	(3-1-0) 4
EC363	Communication Networks	(3-1-0) 4	EC333	Communication Networks	(3-1-0) 4
EC364	VLSI Design Lab	(0-0-3) 2	EC372	VLSI Design Lab	(0-0-3) 2
EC365	Digital Signal Processing Lab	(0-0-3) 2	EC274	Digital Signal Processing Lab	(0-0-3) 2
EC366	Advanced Communication Lab	(0-0-3) 2	EC373	Communication Lab - II	(0-0-3) 2
EC440	Practical Training	1	EC446	Practical Training	1
EC449	Major Project - I	(0-0-6) 4	EC448	Major Project - I	(0-0-6) 4
EC499	Major Project - II	(0-0-9) 6	EC498	Major Project - II	(0-0-6) 6

National Institute of Technology Karnataka, Surathkal
Department of Mining Engineering

**Equivalent courses for the subjects prior to 2011 curriculum, in the revised 2012
B.Tech curriculum**

<i>Course number in curriculum prior to 2012 B.Tech curriculum</i>	<i>Equivalent course numbers in 2012 curriculum</i>	<i>Credits to be awarded</i>
Programme Core (PC)		
MN201: Development of Mineral Deposits (4)	MN201: Development of Mineral Deposits (4)	4
MN202: Drilling and Blasting Engineering(4)	MN210: Drilling and Blasting Engineering (4)- (PSE)	4
MN 203: Mine Surveying-I(4)	MN 202: Mine Surveying (4)	4
MN 204: Mine Surveying Lab-I (2)	MN 203: Mine Surveying Lab (2)	2
MN252: Mine Environmental Engineering-I (4)	MN251: Mine Environmental Engineering-I (4)	4
MN254: Mine Environmental Engineering Lab-I (2)	MN252: Mine Environmental Engineering Lab-I (2)	2
MN 271: Mine Mechanization-I(3)	MN 204: Mining Machinery (4)	3
MN 272: Mine Surveying- II (3)	MN 261: Applied Mine Surveying (PSE)	3
MN 273: Mine Surveying Lab-II (2)	MN 253: Applied Mine Surveying Lab (2)	2
MN 301: Surface Mining (4)	MN 301: Surface Mining (4)	4
MN 302: Mine Environmental Engineering –II (3)	MN 302: Mine Environmental Engineering –II (4)	3
MN 303: Underground Coal Mining (4)	MN 303: Underground Coal Mining (4)	4
MN 306: Mine Environmental Engg., Lab-II (2)	MN 306: Mine Environmental Engg., Lab-II (2)	2
MN 321: Mine Mechanization-II(3)	MN311: Mine Mechanization (3) (PSE)	3
MN 324: Industrial Training – I (1)	MN 254: Industrial Training – I (1)	1
MN 351: Underground Metal Mining (4)	MN 351: Underground Metal Mining (4)	4
MN 355: Industrial Training –II (1)	MN 304: Industrial Training –II (1)	1
MN 371; Rock Mechanics (3)	MN 352: Rock Mechanics (4)	3
MN 372: Rock Mechanics Lab (2)	MN 353: Rock Mechanics Lab (2)	2
MN 373: Mine Systems Engineering (4)	MN 354: Mine Systems Engineering (4)	4
-	MN 355: Mine Camp (1)	1
MN 390: Professional Practice (1)	MN 452: Practical Training (2)- MLC	1
MN 402: Mineral Processing (3)	MN 401: Mineral Processing (4)	4
MN 403: Ground Control Engineering (4)	MN 411: Strata Mechanics (4) (PSE)	4

MN 404: Mineral Processing Lab (2)	MN 402: Mineral Processing Lab (2)	2
MN 421: Mine Economics (3)	MN 466: Mine Economics (3) (PSE)	3
MN 440: Industrial Training –III (1)	MN 403: Industrial Training –III (1)	1
MN 451: Mine Legislation (4)	MN 451: Mine Legislation (4)	4
MN 452: Environmental Management in Mines (3)	MN 465: Environmental Management and Sustainable Development (3) (PSE)	3
MN 490: Seminar (1)	MN 490: Seminar (1) (MLC)	1
Program Major Project		
MN 449: Program Major Project-I (4)	MN 449: Program Major Project-I (3)	4
MN 499: Program Major Project-II (6)	MN 499: Program Major Project-II (5)	6



Dr. K. RAM CHANDAR
Secretary, DUGC



Dr. M. ARUNA
Chairman, DUGC

DEPARTMENT OF APPLIED MECHANICS AND HYDRAULICS
NITK - Surathkal

Ref No: 726 /AMD/NITK/2012

Date: 27.09.2012

Priority Level	Initiator's Expectations		
1. URGENT	1. Approval	2. Decision	3. Action
2. NORMAL	4. Suggestions Sought	5. Information Sought	6. Information Conveyed

From	To	Through	Copy to
Dr. M.K Nagaraj Prof. and Head A.M.D.	Associate Dean (UG)		







Sub: Equivalent courses for the subjects prior to 2011 Curriculum, in the revised 2012, B.Tech Curriculum - reg.

Ref: IOC/NITK/AD(UG)/2012/78 dt 24.7.12

Please find the equivalent courses as follows.

Course numbers in Curriculum prior to 2012 B.Tech Curriculum	Equivalent course numbers in 2012 Curriculum	Credits to be awarded
AM 100 Engineering Mechanics	AM110 Engineering Mechanics	04
AM 201 Mechanics of Solids	AM 201 Mechanics of Solids	04
AM 200 Mechanics of Materials	AM 201 Mechanics of Solids	04
AM 250 Mechanics of Fluids	AM 250 Mechanics of Fluids	04
AM 300 WCS	AM371 OCF & ST	03
AM 350 WRE	AM300 WRE	04

DUGC Members

1. Dr. Paresh Chandra Deka  Prof. G.S Dwarakish
2. Prof. Subba Rao 
3. Prof. A. Mahesha 
4. Dr. B.M Dodamani 
5. Dr. K. Varija 
6. Mr. K. Subrahmanya
7. Dr. H Ramesh 

Chairman DUGC

HOD

Prof. M.K Nagaraj 
Dr. M. K. NAGARAJ

PROFESSOR & HEAD
Department of Applied Mechanics & Hydraulics
National Institute of Technology Karnataka
Surathkal, P.O. Srinivasnagar
Mangalore - 575 025, INDIA

NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA, SURATHKAL

Equivalent courses for UG programme

Department of Mechanical Engineering (ME)

Courses as per old curriculum year earlier 2012-13	Equivalent course in new curriculum 2012-13
Engineering Science Core (PSC)	
ME100 Elements of Mechanical Engg. (3-1-0) 4	ME110 Elements of Mechanical Engg. (3-0-0) 3
ME101 Engineering Graphics (1-3-0) 4	ME111 Engineering Graphics (1-0-3) 3
ME102 Workshop (0-0-2) 1	ME200 Workshop (0-0-2) 1

Programme Core (PC)	
ME201 Basic Engineering Thermodynamics (3-1-0) 4	ME201 Basic Engineering Thermodynamics (3-1-0) 4
ME202 Fluid Mechanics and Machinery (3-1-0) 4	ME202 Fluid Mechanics and Machinery (3-1-0) 4
ME203 Mechanics of Machines (3-1-0) 4	ME203 Mechanics of Machines (3-1-0) 4
ME204 Basic Manufacturing Processes (3-1-0) 4	ME204 Basic Manufacturing Processes (3-1-0) 4
ME205 Material Science & Metallurgy (3-0-0) 3	ME205 Material Science & Metallurgy (3-0-0) 3
ME206 Engineering Drawing (1-0-3) 3	ME206 Engineering Drawing (1-0-3) 3
ME207 Workshop Practice (0-0-2) 1	ME207 Workshop Practice (0-0-3) 2
ME250 Applied Thermodynamics (3-1-0) 4	ME250 Applied Thermodynamics (3-1-0) 4
ME251 Analysis and Design of Machine Components (3-1-0) 4	ME251 Analysis and Design of Machine Components (3-1-0) 4
ME252 Computer Aided Engineering (3-1-0) 4	ME252 Computer Aided Engineering (3-0-0) 3
ME253 Manufacturing Technology (3-0-0) 3	ME253 Manufacturing Technology (3-0-0) 3
ME254 Metrology and Quality Control (3-1-0) 4	ME254 Metrology (3-0-0) 3
ME255 Machine Drawing (1-0-3) 3	ME255 Machine Drawing (1-0-3) 3
ME256 Mechanical Lab- I (0-0-2) 1	ME304 Mechanical Lab- I (0-0-2) 1
ME300 Energy Engineering (3-1-0) 4	ME300 Energy Engineering (3-0-0) 3
ME301 Design of Mechanical Drives (3-1-0) 4	ME301 Design of Mechanical Drives (3-1-0) 4
ME302 Measurements, Instrumentation and Control (3-0-0) 3	ME302 Mechanical Measurements & Instrumentation (3-0-0) 3
ME303 Metrology & CAD Lab (0-0-2) 1	ME303 Metrology & CAD Lab (0-0-2) 1
ME350 Heat Transfer (3-1-0) 4	ME350 Heat Transfer (3-1-0) 4
ME351 Machine Dynamics & Vibrations (3-1-0) 4	ME351 Machine Dynamics & Vibrations (3-1-0) 4
ME352 Machine Shop - I (0-0-3) 2	ME352 Machine Shop - I (0-0-3) 2
ME405 Mechanical Lab - II (0-0-2) 1	ME401 Mechanical Lab - II (0-0-2) 1
ME406 Machine Shop - II (0-0-3) 2	ME402 Machine Shop - II (0-0-3) 2

Programme Major Project (PMP)	
ME449 Major Project - I (0-1-3) 3	ME449 Major Project - I (0-1-3) 2
ME499 Major Project - II (0-1-9) 7	ME499 Major Project - II (0-1-9) 6
Mandatory Learning Courses (MLC)	
ME440 Practical Training / Educational Tour 2	ME440 Practical Training (0-0-2) 2
ME490 Seminar (0-0-2) 1	ME490 Seminar (0-0-2) 1

DEPARTMENT OF METALLURGICAL & MATERIALS ENGINEERING

Course numbers in Curriculum prior to 2012 B.Tech. Curriculum	Equivalent course numbers in 2012 curriculum	Credits to be awarded
Basic Science Core (BSC)		
MA100 - Engineering Mathematics – I	MA100 - Engineering Mathematics – I	(3-1-0) 4
PH100 - Physics	PH100 - Physics	(3-1-0) 4
PH101 - Physics Lab	PH101 - Physics Lab	(0-0-3) 2
MA101 - Engineering Mathematics – II	MA101 - Engineering Mathematics – II	(3-1-0) 4
CY100 - Chemistry	CY100 - Chemistry	(3-1-0) 4
CY101 - Chemistry Lab	CY101 - Chemistry Lab	(0-0-3) 2
Engineering Science Core (ESC)		
AM100 - Engineering Mechanics	AM100 - Engineering Mechanics	(3-1-0) 4
EE100 - Elements of Electrical Engg.	EE100 - Elements of Electrical Engg.	(3-1-0) 4
ME100 - Elements of Mechanical Engg.	ME100 - Elements of Mechanical Engg.	(3-1-0) 4
CO100 - Computer Programming	CO100 - Computer Programming	(3-1-0) 4
CO101 - Computer Programming Lab	CO101 - Computer Programming Lab	(0-0-3) 2
EC101 - Elements of E & C Engg.	EC101 - Elements of E & C Engg.	(3-1-0) 4
ME101 - Engineering Graphics	ME101 - Engineering Graphics	(1-3-0) 4
AM200 - Mechanics of Materials	AM200 - Mechanics of Materials	(3-1-0) 4
CY206 - Instrumental Analysis Lab	CY206 - Instrumental Analysis Lab	(0-0-4) 2
ME102 - Workshop	ME200 - Workshop	(0-0-2) 1
ME328 - Machine Design	ME328 - Machine Design	(3-1-0) 4
CH242 - Mineral Dressing	MT214 - Mineral Dressing	(3-0-0) 3
CH263 - Mineral Dressing Lab	CH263 - Mineral Dressing Lab	(0-0-3) 2
Humanities and Social Science Core (HSC)		
HU100 - Professional Communication	HU100 - Professional Communication	(3-1-0) 4
HU300 - Engineering Economics	HU300 - Engineering Economics	(3-0-0) 3
HU301 - Management Theory & Practice	HU302 - Principles of Management	(3-0-0) 3
Programme Core (PC)		
MT200 - Mechanical Testing	MT210 - Mechanical Testing	(2-0-0) 2
MT201 - Metallurgical Thermodynamics	MT211 - Metallurgical Thermodynamics	(3-1-0) 4
MT202 - Non Destructive Testing	MT414 - Non Destructive Testing	(2-0-0) 2
MT250 - Physical Metallurgy	MT212 - Physical Metallurgy	(3-1-0) 4
MT251 - Phase Diagrams	MT261 - Phase Diagrams	(3-1-0) 4
MT252 - Principles of Extractive Metallurgy	MT262 - Principles of Extractive Metallurgy	(3-1-0) 4
MT253 - X-rays and Electron Metallography	MT263 - X-rays and Electron Metallography	(3-1-0) 4
MT254 - Polymer Science & Technology	MT213 - Polymer Science & Technology	(3-0-0) 3
MT299 - Testing of Materials Lab	MT289 - Testing of Materials Lab	(0-0-3) 2
MT301 - Process Engineering	MT260 - Process Engineering	(3-1-0) 4
MT302 - Production of Iron and Ferro Alloys	MT320 - Production of Iron and Ferro Alloys	(3-0-0) 3
MT303 - Heat Treatment	MT321 - Heat Treatment	(3-0-0) 3
MT348 - Physical Metallurgy Lab	MT322 - Physical Metallurgy Lab	(0-0-3) 2
MT349 - Extractive metallurgy Lab	MT323 - Extractive metallurgy Lab	(0-0-3) 2
MT350 - Production of Steel	MT360 - Production of Steel	(3-0-0) 3
MT353 - Joining of Metals	MT362 - Power Met. & Joining of Metals	(3-0-0) 3
MT354 - Ceramics and Refractories	MT361 - Ceramics Engineering	(3-0-0) 3
MT390 - Professional Practice	MT370 - Professional Practice	1

Course numbers in Curriculum prior to 2012 B.Tech. Curriculum	Equivalent course numbers in 2012 curriculum	Credits to be awarded
MT397 - Metallographic Lab	MT377 - Metallographic Lab	(0-0-3) 2
MT398 - Ceramics and Polymers Lab	MT378 - Ceramics and Polymers Lab	(0-0-3) 2
MT399 - Heat Treatment Lab	MT379 - Heat Treatment Lab	(0-0-3) 2
MT400 - Phase Transformations	MT411 - Phase Transformations	(3-1-0) 4
MT402 - Foundry Technology	MT420 - Foundry Technology	(3-0-0) 3
MT440 - Practical Training/Educational Tour	MT422 - Practical Training	2
MT448 - Foundry Technology Lab	MT424 - Foundry Technology Lab	(0-0-3) 2
MT403 - Corrosion Engineering	MT421 - Corrosion Engineering	(3-0-0) 3
MT498 - Metal Processing Lab	MT478 - Metal Processing Lab	(0-0-3) 2
MT490 - Seminar	MT480 - Seminar	(0-0-2) 1
Programme Specific Electives (PSE)		
MT300 - Electronic Properties of Materials	MT264 - Electronic Properties of Materials	(3-0-0) 3
MT305 - Instrumental Methods of Analysis	MT265 - Instrumental Methods of Analysis	(3-0-0) 3
MT351 - Fatigue, Fracture and Creep	MT323 - Fatigue, Fracture and Creep	(3-0-0) 3
MT352 - Powder Metallurgy	MT362 - Power Met. & Joining of Metals	(3-0-0) 3
MT355 - Aerospace Materials	MT364 - Aerospace Materials	(3-0-0) 3
MT401 - Metal Forming	MT363 - Metal Forming	(3-0-0) 3
MT406 - Extraction of Nonferrous Metals	MT412 - Extraction of Nonferrous Metals	(3-0-0) 3
MT407 - Secondary Refining of Steels	MT413 - Secondary Refining of Steels	(3-0-0) 3
MT450 - Advanced Engineering Materials	MT416 - Advanced Engineering Materials	(3-0-0) 3
MT451 - Composite Materials	MT471 - Composite Materials	(3-0-0) 3
MT452 - Advanced Welding Technology	MT472 - Advanced Welding Technology	(3-0-0) 3
MT453 - Surface Engineering	MT473 - Surface Engineering	(3-0-0) 3
MT454 - Modelling & Simulation in Material Processes	MT474 - Modelling and Simulation in Material Processes	(3-0-0) 3
Open Electives (OE)		
MT405 - Process Plant Materials	MT415 Process Plant Materials	(3-0-0) 3
MT408 - Nuclear Materials	MT418 Nuclear Materials	(3-0-0) 3
MT409 - Fracture of Engineering Materials	MT419 Fracture of Engineering Materials	(3-0-0) 3
MT455 - Smart Materials and Sensors	MT477 Smart Materials and Sensors	(3-0-0) 3
Programme Major Project (PMP)		
MT449 Major Project - I	MT429 Major Project - I	(0-0-6) 4
MT499 Major Project - II	MT479 Major Project - II	(0-0-9) 6
Mandatory Learning Courses (MLC)		
MLC1 - Environmental Studies	MLC1 Environmental Studies	(2-0-0) 2
MLC2 - Professional Ethics and Human Values	MLC2 Professional Ethics and Human Values	(1-0-0) 1

Department of Chemical Engineering

Name of Subject	Course numbers in curriculum prior to 2012	Equivalent course numbers in 2012 curriculum	Credits to be awarded
Process Calculations	CH200	CH200	(3-1-0)4
Momentum Transfer	CH201	CH201	(3-1-0)4
Particulate Technology	CH202	CH202	(3-1-0)4
Chemical Engg. Thermodynamics-I	CH 250	CH250	(3-1-0)4
Heat Transfer	CH 251	CH251	(3-1-0)4
Mass Transfer I	CH 252	CH252	(3-1-0)4
Chemical Reaction Engg-I	CH 253	CH253	(3-1-0)4
Fluid & Fluid Particle Systems Lab	CH 254	CH254	(0-0-3)2
Mineral Dressing Lab.	CH 263	CH 263	(0-0-3)2
Chemical Engg. Thermodynamics- II	CH300	CH300	(3-1-0)4
Chemical Reaction Engg. II	CH301	CH301	(3-1-0)4
Mass Transfer II	CH302	CH302	(3-1-0)4
Heat Transfer Operation Lab	CH303	CH303	(0-0-3)2
Transport Phenomena	CH350	CH203	(3-1-0)4
Process Dynamics and Control	CH351	CH351	(3-1-0)4
Simultaneous Heat and Mass Transfer	CH352	CH352	(3-0-0)3
Biochemical Engg.	CH353	CH312	(3-1-0)4
Mass Transfer Operations Lab	CH354	CH354	(0-0-3)2
Chemical Process Industries	CH400	CH355	(3-0-0)3
Pollution Control & Safety in Process Industries	CH401	CH412	(3-0-0)3
Process Design of Chemical Equipments	CH402	CH402	(3-1-0)4
CRE& PC Lab	CH403	CH403	(0-0-3)2
Industrial Training	CH440	CH440	2
Major Project I	CH449	CH449	(0-0-3)2
Seminar	CH 490	CH448	(0-0-2)1
Major Project II	CH 499	CH499	(0-0-12)8
Energy Technology	CH 261	CH261	(3-0-0)3
Process Instrumentation	CH311	CH211	(3-0-0)3
Separation Processes	CH362	CH362	(3-1-0)4
Bioreactor Design	CH412	IB714	(3-1-0)4
Fertilizer Technology	CH413	CH363	(3-0-0)3
Fermentation Technology	CH 414	CH411	(3-0-0)3
Petroleum Engineering	CH415	CH311	(3-0-0)3
Mechanical Design of Process Vessels	CH 416	PD807	(3-0-0)3
Process Modeling and Simulation	CH 461	CH361	(3-1-0)4
Risk & Safety Management in Process Industries	CH464	CH364	(3-0-0)3
Air Pollution Control & Design of Equipments	CH465	CH465	(3-0-0)3

2010 Batch

Sl. No.	Course numbers in curriculum prior to 2012 B.Tech curriculum	Equivalent course numbers in 2012 curriculum	Credits to be awarded
1	IT203: Digital Design and Computer Organization (4-0-0) 4	IT201: Digital Design and Computer Organization	(3-1-0) 4
2	IT205: Data Structures and Algorithms Lab (0-0-3) 2	IT204: Data Structures and Algorithms Lab	(0-0-3) 2
3	IT208: Object Oriented Programming (3-0-0) 3	IT206 : Paradigms of Programming - I	(3-0-2) 4
4	IT250: Microprocessors and Interfacing (4-0-0) 4	IT255: Microprocessors and Interfacing	(3-0-2) 4
5	IT254: Microprocessors Lab (0-0-3) 2	--	(0-0-3) 2
6	IT251: Computer Graphics (3-0-0) 3	IT254: Computer Graphics	(3-0-2) 4
7	IT255: Computer Graphics Mini Project (0-1-3) 3	--	(0-1-3) 3
8	IT252: Computer Communication and Networking (4-0-0) 4	IT251: Computer Communication and Networking	(3-0-2) 4
9	IT256: Design and Analysis of Algorithms Lab (0-0-3) 2	--	(0-0-3) 2
10	IT257: Object Oriented Systems (3-0-0) 3	IT306: Object Oriented Analysis & Design	(3-0-0) 3

Dr. Ananthanarayana V. S.
 Professor & Head
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 National Institute of Technology Karnataka, Surathkal
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2009 Batch

Sl. No.	Course numbers in curriculum prior to 2012 B.Tech curriculum	Equivalent course numbers in 2012 curriculum	Credits to be awarded
1	IT202: Digital System & Design (3-1-0) 4	IT201: Digital Design and Computer Organization	(3-1-0) 4
2	IT253: Computer Graphics (3-0-0) 3	IT254 Computer Graphics	(3-0-2) 4
3	IT300: Operating Systems (3-0-0) 3	IT250: Operating Systems	(3-0-2) 4
4	IT305: Operating Systems Lab (0-0-3) 2	--	(0-0-3) 2
5	IT301: Database Systems (3-0-0) 3	IT301: Database Systems	(3-0-2) 4
6	IT308: Object Oriented Systems (3-0-0) 3	IT306 : Object Oriented Analysis & Design	(3-0-0) 3
7	IT351: Internet Technology & Applications (3-1-0) 4	IT302: Web Technologies and Applications	(3-0-2) 4
8	IT354: Internet Technology & Applications Lab (0-0-3) 2	--	(0-0-3) 2
9	IT352: Compiler Design (3-1-0) 4	IT303: Automata and Compiler Design	(3-0-2) 4
10	IT355: Network Lab (0-0-3) 2	--	(0-0-3) 2
11	IT364: Digital Image Processing (3-0-0) 3	IT354: Perceptual Video Processing	(3-0-2) 4

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Sl.No	Course Number in 2011 curriculum and before	Equivalent subject code in 2012 Curriculum	Number of credits
1	CV200:Civil Engineering Materials	CV200	03
2	CV201:Elements of Surveying	CV201	04
3	CV202:engineering Geology	CV202	04
4	CV203:Mining Geology	CV203	04
5	CV216:Civil Engineering Materials Lab - I	CV216	02
6	CV217:Surveying Practice	CV217	02
7	CV218:Mining Geology Lab	CV218	02
8	CV240:Introduction to Civil Engineering	01
9	CV250:Structural Analysis - I	CV250	04
10	CV251:Architecture, Construction and Town Planning	03
11	CV252:Structural Design - I	CV251	04
12	CV253:Soil Mechanics	CV252	04
13	CV254:Advanced Mining Geology Lab		02
14	CV266:Geology Lab		02
15	CV267:Soil Mechanics Lab	CV267	02
16	CV268:Advanced Mining Geology		03
17	CV300:Structural Analysis - II	CV300	04
18	CV301:High Way and Traffic Engineering	CV301	03
19	CV316:Building Design and Drawing	CV316	03
20	CV321:Applied Soil Engineering	CV321	03
21	CV322:Concrete Technology	CV322	03
22	CV350:Environmental Engineering	CV350	04
23	CV351 :Structural Design - II	CV351	03
24	CV366:Environmental Engineering Lab	CV366	02
25	CV367:Civil Engineering Materials Lab - II	CV367	02
26	CV371:Railways, Tunnels, Harbours and Airports	CV371	03
27	CV372:Design of PSC Structures	CV372	03
28	CV385:Geoinformatics	CV385	03
29	CV386:Rock Mechanics	CV386	03
30	CV387:Applied Geology	CV387	03
31	CV388:Advanced Surveying	CV388	04
32	CV389:Advanced Structural Analysis	CV389	03
33	CV390:Professional Practice		01
34	CV400:Estimation, Costing and Specifications	CV400	04
35	CV401:Bridge Engineering	CV401	03
36	CV417:Structural Design and Drawing	CV417	03
37	CV421:Transportation Project Planning & Evaluation	CV421	03
38	CV422:Advanced Design of Structures - I	CV422	03
39	CV423:Design of Foundations, Earth and	CV423	03

	Earth Retaining Structures		
40	CV424:Advanced Environmental Engineering	CV424	03
41	CV425:Computer Aided Design & Applications in Civil Engineering	CV425	04
42	CV438:Structural Dynamics and Wind Engineering	CV438	03
43	CV440:Practical Training / Educational Tour		02
44	CV471:Advanced Design of Structures - II	CV471	04
45	CV472:Ground Improvement Techniques	CV472	03
46	CV473:FEM Applications in Civil Engineering	CV473	03
47	CV474:Elements of Earth Quake Engineering	CV474	03
48	CV485:Air Pollution and Noise Pollution	CV485	03
49	CV486:Environmental Impact Assessment	CV486	03
50	CV487:Construction and Project Management	CV487	03
51	CV490:Seminar		01


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Annexure - II

Mechanical Engineering Department
National Institute of Technology Karnataka, Surathkal
Po Srinivasanagar, Mangalore 575 025, DK

Proceedings of DPGC & DRPC held on 28-09-2012

New courses proposed from the department of Mechanical Engineering including one course modified as per the previous BOS were discussed.

New courses:


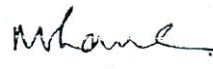


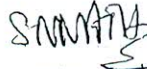
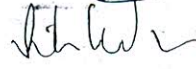


1. ME826 Experimental technique in Vibration analysis (2-0-2) 3
2. ME906 Advanced Theory of Vibration (3-0-0) 3

Modified course:

1. ME825 Virtual Instrumentation (2-0-2) 3

Above committees recommend that the courses to place before the BOS for the approval, and to implement from the academic semester Jan 2013.

Members:

1. Dr. K.V. Gangaadharan
Chairman DPGC 
2. Dr. G.C. Mohan Kumar
Chairman DRPC & HOD, Mech. 
3. Veershetty Guntapuzhe 
4. Dr. S.M. Murugendharan 
5. Dr. Narendranath S 
6. Dr. Ravikiran Kadali 
7. Dr. Vijay Desai 
8. H. Shivananda Nayaka 

ME 826 Experimental techniques in Vibration Analysis (2- 0-2) 3

Review of basics of Mechanical Vibration. Idealization of complex real world system to SDOF, TDOF and MDOF. Vibration measurement and instrumentation. Determination of Impulse response of mechanical systems. Determination of harmonics excitation response of mechanical systems. Methods of Vibration control.

Lab component

Experimental identification of natural frequency of simplified real world system, Experimental methods of system parameter identification. Estimation of damping in a given system. Impulse response analysis of mechanical systems. Harmonic response of simplified real world mechanical systems. Signature analysis of rotating machines. Passive, semi active and active vibration control

Reference

- 1) *William T Thomson et. al, Theory of Vibration with Applications, Fifth Edition, Pearson Education.*
- 2) *Leonard Meirovitch, Elements of Vibration Analysis, 2nd Edition, McGrawHill Book Company*
- 3) *J.P. Holman, Experimental Methods for Engineers McGrawHill, 6 th Edition(2000)*

Old Course with modification

ME 825 Virtual Instrumentation (2-0-2) 3

Introduction to virtual instrumentation and its evolution, Basics of graphical programming and LabVIEW, Introduction to graphical system design, Basics of Data acquisition, Basics of Digital Signal processing and signal manipulation. Sensor, actuators and its characteristics, Advances in sensing technology and DAQ

Lab component:

LabVIEW programming, Data collection from sensor inputs, Basic Digital signal processing of complex real world signals, Application of filters, Implementation of Simple controls logics. Interfacing traditional instruments with Lab VIEW, Remote triggered experiments

Reference

- Sanjay Gupta, Joseph John Virtual Instrumentation Using Lab VIEW Tata MaGraw-Hill (2005)*
D Patranabis, Sensors and Transducers, Phl 2 nd Edition (2003)
J.P. Holman Experimental Methods for Engineers McGrawHill, 6 th Edition(2000)
Academic Resources from www.ni.com

Ph.D. Level Course in Mathematics

Topics in Functional Equations

Introduction to functional Equations. Cauchy's Equations and applications.
Functional equations on several variables including d'Alembert's equation, Jensen's equation. Selected topics of iterative functional equation.

References:

1. J. Aczel, Lectures on functional equations and their applications, Academic Press, New York, 1966.
2. M. Kuczma, B. Choczewski, R. Ger, Iterative Functional Equations, Cambridge University Press, Cambridge, 1990.



HEAD
Department of Mathematical and Computational Sciences
National Institute of Technology Karnataka, Surathkal
MANGALORE - 575 025

Proceedings of the DRPC meeting held on 26.09.12
at 3.30 pm in the Department Meeting Room.

Members present:

1. Prof. Keshava Prasad Halemane
2. Prof. R. J. D' Souza
3. Prof. S. M. Hegde
4. Dr. Murulidhar N.N, Chairman
5. Prof. A. Kandasamy
6. Dr. S.S. Kamath
7. Dr. Santhosh George
8. Dr. Vivek Sinha
9. Dr. P. Sam Johnson, Secretary
10. Dr. V. Murugan
11. Dr. B.R. Shankar
12. Dr. D. Sukumar

KPH
R/S
Hegde
Kandasamy
Kamath
Santhosh
Sinha
Sajl
Murugan
Shankar
Sukumar

Agenda-1: Extension of Ph.D. Registration of Mrs. Rekha G. Pai

Resolved to recommend the extension of the
PhD registration of Mrs. Rekha G. Pai (Reg. No. MA08PO1)
as per the norms.

Agenda-2: Submission of Ph.D. Thesis of Mr. Jidesh P.

Resolved to forward the PhD Thesis titled
"Image Reconstruction using PDE, Variational and
Regularization Methods" by Mr. Jidesh. P for
needful action.

Agenda-3: Resolved to recommend the PhD-Level course on "Functional Equations" to BOS.

Sajl
Dr. P. Sam Johnson
Secretary

Hegde
Dr. Murulidhar N.N
Chairman

Department of Mechanical Engineering
National Institute of Technology Karnataka, Surathkal

ME 906 Advanced Theory of Vibrations (3-0-0) 3

Syllabus:

Review of free and forced vibrations, vibration isolation, transmissibility, multi d-o-f systems, experimental methods in vibration analysis, vibration of continuous systems: transverse, flexural, torsional vibration of beams, Timoshenko beam, Hamilton principle, vibration of plates; collocation method, Myklested – Prohl method, transient vibrations, nonlinear vibrations and random vibrations.

Reference:

- 1) SS Rao, Mechanical Vibrations, Pearson Education Inc., New Delhi, 2004
- 2) CW De Silva, Vibration: Fundamentals and Practice, CRC Press, New York, 1999.
- 3) WT Thomson, Theory of Vibration with Applications, CBS Publishers & Distributors, New Delhi, 1998
- 4) Allan G Piersol and Thomas L Paez, Harris' Shock and Vibration Handbook, McGraw Hill, 2010,
- 5) CF Beards, Structural Vibration: Analysis and Damping, John Wiley & Sons Inc., New York, 1996.



डॉ. एन. आदिल काज़मी
सचिव



Dr. N. Adil Kazmi
Secretary

विश्वविद्यालय अनुदान आयोग
बहादुरशाह ज़फर मार्ग, नई दिल्ली-110 002
UNIVERSITY GRANTS COMMISSION
BAHADUR SHAH ZAFAR MARG
NEW DELHI-110 002
OFF. : (011) 23239337
(011) 23236288
FAX : (011) 23238858
E-mail : na.kazmi@ugc.ac.in

BY SPEED POST

21 SEP 2012

No.F. 1-1/2012(SO)(PS/Misc.)

September, 2012

Sir/Madam,

Kindly refer to UGC letter number F.1-1/2002(PS) dated 12.06.2009 enclosing the UGC (Minimum Standards and Procedure for awards of M.Phil/Ph.D Degree) Regulations, 2009 wherein clause 19 provides as under:-

“Following the successful completion of the evaluation process and announcements of the award of M.Phil/Ph.D, the University shall submit a soft copy of the M.Phil/Ph.D thesis to the UGC within a period of thirty days, for hosting the same in INFLIBNET, accessible to all Institutions/Universities.”

It may be noted that is mandatory for all Universities/Institutions to comply with these Regulations. In order to avoid delay, the Universities may submit a soft copy to INFLIBNET with an endorsement to University Grants Commission.

The contents of this letter may be brought to the notice of all the affiliated colleges/institutions.

Yours faithfully,

(N. Adil Kazmi)

Encl: As above

The Vice Chancellor
National Institute of Tech.
Karnataka, Surathkal PO Srini-
wasnagar-574157 (Karnataka)

Dean (Ad)

28/9

-27-

-5-

UNIVERSITY GRANTS COMMISSION
BAHADUR SHAH ZAFAR MARG
NEW DELHI-110 002

**UGC (MINIMUM STANDARDS AND PROCEDURE FOR AWARD OF
M. Phil/Ph.D. DEGREE), REGULATION, 2009**

**TO BE PUBLISHED IN THE GAZETTE OF INDIA
PART III, SECTION-4**

F.1-1/2002(PS)Exemp.

1st June, 2009

NOTIFICATION

In exercise of the powers conferred by clause (e) & (g) of sub-section (1) of Section 26 of University Grants Commission Act, 1956 (3 of 1956), the University Grants Commission hereby makes the following Regulations, namely:-

1. Short Title, Application and Commencement:

1. These regulations may be called University Grants Commission (minimum standards and procedure for award of M.Phil./Ph.D. Degree), Regulation 2009.
2. They shall apply to every university established or incorporated by or under a Central Act, Provincial Act or a State Act, every institution

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including a constituent or an affiliated college recognized by the Commission, in consultation with the university concerned under clause (1) of Section 2 of the University Grants Commission Act, 1956, and every institution deemed to be a university under section 3 of the said Act.

3. They shall come into force with effect from the date of their publication in the Gazette of India.
4. All Universities, Institutions, Deemed to be Universities and Colleges/Institutions of National Importance shall be eligible for conducting M.Phil. and Ph.D. Programs.
5. Notwithstanding anything contained in these Regulations or any other Rule or regulation, for the time being in force, no University, Institution, Deemed to be University and College/Institution of National Importance shall conduct M.Phil and Ph.D programmes through distance education mode.

ELIGIBILITY CRITERIA FOR M. PHIL./PH.D. SUPERVISOR

6. All Universities, Institutions, Deemed to be Universities and Colleges/Institutions of National Importance shall lay down the criteria for the faculty to be recognized as Research supervisor both for M.Phil and Ph.D. programme.
7. All Universities, Institutions, Deemed to be Universities and Colleges/Institutions of National importance shall lay down and decide on annual basis, a predetermined and manageable number of M.Phil and

doctoral students depending on the number of the available eligible faculty supervisors. A Supervisor shall not have, at any given point of time, more than eight Ph.D scholars and Five M.Phil. Scholars.

8. The number of seats for M.Phil and Ph.D. shall be decided well in advance and notified in the University website or advertisement. All Universities, Institutions, Deemed to be Universities and College/Institutions of National importance shall widely advertise the number of available seats for M.Phil/ Ph.D studies and conduct admission on regular basis.

PROCEDURE FOR ADMISSION

9. (i) All Universities, Institutions, Deemed to be Universities and Colleges/Institutions of National Importance shall admit M.Phil doctoral students through an Entrance Test conducted at the level of individual University, Institution, Deemed to be University, College/institution of National Importance. The University may decide separate terms and conditions for those students who qualify UGC/CSIR (JRF) Examination/SLET/GATE/teacher fellowship holder or have passed M.Phil programme for Ph.D. Entrance Test. Similar approach may be adopted in respect of Entrance Test for M.Phil programme.
- (ii) It shall be followed by an interview to be organized by the School/Department/institution/University as the case may be.
- (iii) At the time of interview, doctoral candidates are expected to discuss their research interest/area.

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(iv) Only the predetermined number of students may be admitted to M.Phil/Ph.D programme.

10. The admission to the Ph.D programme would be either directly or through M.Phil programme.
11. While granting admission to students to M.Phil/Ph.D. programmes, the department/institute/school will pay due attention to the National/State Reservation Policy.

ALLOCATION OF SUPERVISOR

12. The allocation of the supervisor for a selected student shall be decided by the Department in a formal manner depending on the number of student per faculty member, the available specialization among the faculty supervisors, and the research interest of the student as indicated during interview by the student. The allotment/allocation of supervisor shall not be left to the individual student or teacher.

COURSE WORK

13. After having been admitted, each M.Phil/Ph.D student shall be required by the Universities, Institutions, Deemed to be Universities and Colleges/Institutions of National Importance, as the case may be, to undertake course work for a minimum period of one semester. The course work shall be treated as pre M.Phil/Ph.D preparation and must include a course on research methodology which may include quantitative methods and computer applications. It may also involve reviewing of published research in the relevant field. The individual

Universities, Institutions, Deemed to be Universities and Colleges/Institutions of National Importance, as the case may be, shall decide the minimum qualifying requirement for allowing a student to proceed further with the writing of the dissertation.

If found necessary, course work may be carried out by doctoral candidates in sister departments/institutes either within or outside the university for which due credit will be given to them.

EVALUATION AND ASSESSMENT METHODS

14. Upon satisfactory completion of course work and research methodology, which shall form part and parcel of M.Phil/ Ph.D. programme, the M.Phil/Ph.D scholar shall undertake research work and produce a draft thesis within a reasonable time, as stipulated by the institution concerned.
15. Prior to submission of the thesis, the student shall make a pre-M.Phil/Ph.D presentation in the Department that may be open to all faculty members and research students, for getting feedback and comments, which may be suitably incorporated into the draft thesis under the advice of the supervisor.
16. Ph.D candidates shall publish one research paper in a refereed journal before the submission of the thesis/monograph for adjudication, and produce evidence for the same in the form of acceptance letter or the reprint.
17. The thesis produced by the M.Phil/Ph.D student in the

Institutions/Departments and submitted to the University, Institution, Deemed to be University, College/Institution of National Importance, as the case may be, shall be evaluated by at least two experts, out of which at least one shall be from outside the State. It shall be up to the University, Institution, Deemed to be University, College/Institution of National Importance concerned to have one examiner from outside the country.

- 18. On receipt of satisfactory evaluation reports, M.Phil/Ph.D students shall undergo a viva voce examination which shall also be openly defended.

DEPOSITORY WITH UGC:

- 19. Following the successful completion of the evaluation process and announcements of the award of M.Phil/Ph.D, the University shall submit a soft copy of the M.Phil/Ph.D thesis to the UGC within a period of thirty days, for hosting the same in INFLIBNET, accessible to all Institutions/Universities.

- 20. Along with the Degree, the degree awarding University, Institution Deemed to be University, College/Institution of National Importance, as the case may be, shall issue a provisional certificate certifying to the effect that the Degree has been awarded in accordance with the provisions to these Regulations of the UGC.


(Dr. R.K. Chauhan)
Secretary

To
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