DELHI TECHNOLOGICAL UNIVERSITY

Minutes of
15th Meeting
of
Academic Council

held on 18.11.2016

Shahbad Daulatpur, Bawana Road, Delhi-110042

DELHI TECHNOLOGICAL UNIVERSITY

Established under Govt. of Delhi Act 6 of 2009
(Formerly Delhi College of Engineering)
BAWANA ROAD, SHAHBAD DAULATPUR, DELHI-42

No. F.DTU/Org/AC/Meeting/01(1)/10/Vol-VI/ 10668 – 84   **Dated :** 25|11|16

Minutes of the 15th meeting of the Academic Council held on 18.11.2016 at 11.30 A:M in the Senate Hall of DTU.

The 15th meeting of the Academic Council of DTU was held on 18.11.2016 at 11.30 A:M in the Senate Hall of DTU.

The following members were present:

1. Prof. Yogesh Singh, Vice Chancellor, DTU.
2. Prof. S.K. Jain, Professor, IIT-Delhi.
3. Prof. C.R. Babu, Professor Emiritus, University of Delhi.
4. Prof. S.K. Garg, Pro Vice Chancellor, DTU.
5. Prof. Vishal Verma, Dean (International Affairs), DTU
6. Prof. Madhusudan Singh, Dean Academic (UG), DTU
7. Prof. H.C. Taneja, Dean Academic (PG), DTU
8. Prof. Ashutosh Trivedi, Dean (IRD), DTU.
9. Prof. Samsher, Dean (SW), DTU
10. Prof. S.K. Singh, Dean (Alumni Affairs), DTU
11. Prof. Pragati Kumar, Dean (Continuing Education)
12. Prof. R.S. Mishra, HOD, Mechanical Engg. Department
13. Prof. S.C Sharma, HOD (Deptt. of Applied Physics)
14. Prof. A.K. Gupta, HOD, Env. Engg. Department
15. Prof. D. Kumar, HOD (Bio-Technology Deptt.)
16. Prof. Nirendra Dev, HOD (Civil Engg. Deptt.)
17. Prof. O.P. Verma, HOD (Comp. Sc. Engg.)
18. Dr. Archana Rani, HOD (Applied Chem. Deptt.)
19. Dr. Seema Singh, HOD (Humanities)
20. Dr. Sangita Kansal, HOD (Applied Mathematics Deptt.).
21. Dr. S. Indu, HOD (E & C Deptt.)
22. Dr. Rajan Yadav, HOD (DSM).
23. Dr. R.S. Walia, HOD (T&P)
24. Prof. Vipin, Controller of Examinations, DTU
25. Dr. A.K. Madan, Deptt. of Mech. Engg.

Following special invitees were also present:

1. Prof. G.C. Maheshwari
2. Prof. P.K. Suri
3. Prof. Daya Gupta
4. Prof. Reeta Wattal
5. Prof. Narendra Kumar II
6. Dr. Kapil Sharma

Col. Neeraj Suri (Retd.), Registrar, DTU., Sh. Sanjeev Kumar Gupta, Prof. Vir Singh, Department of Physics, IIT, Roorkee, Prof. B.J. Alappat, Mr. O.P. Bhutani, Dr. Ranganath M.S., Deptt. of Mech. Engg. and some Professors of the University could not attend the meeting due to their pre-occupation.

Agenda 15.1   :   Opening Remarks by the Chairman.

The Chairman, Academic Council welcomed all the members of the Council. He informed that the University is organizing 3rd convocation on 8th December, 2016. Hon'ble L.G./Chancellor of the University has kindly consented to be the Chief Guest on this occasion. The convocation address will be delivered by Prof. H.P. Dixit, Former Vice Chancellor, IGNOU, Delhi. The Chief Guest will confer degrees to the successful candidates.

He also apprised the members about the initiation of process of recruitment of faculty to the post of Assistant Professor for Computer Science & Engineering department by following the regular procedure comprising of written test and presentation followed by interview. In all, 94 candidates were shortlisted after the written test out of the total appeared. 10 candidates were selected and 06 candidates out of them have joined the University. The process of recruitment for other disciplines has also been initiated and is likely to be completed soon.

Proposal for construction of phase- II of present DTU amounting to Rs.200 crores has been submitted to the Finance Department, Delhi. He further informed that establishment of new campus in ITI, Mayur Vihar, Delhi has also been approved by the Government of NCT of Delhi.

The Career Advancement Scheme applicable to the teachers has also been taken up and the file is sent to Hon'ble L.G., Delhi for obtaining his concurrence.

Agenda 15.2   :   Confirmation of the minutes of the 14th meeting of Academic Council held on 02.09.2016.

The Minutes of the 14th meeting of the Academic Council held on 02.09.2016, were circulated among all the members vide Ref. No.DTU/ORG/AC/Meeting/01(1)/2010/Vol-V/7406-22 dated 14.09.2016, no comments have been received from any of the members.

Decision : The Academic Council confirmed the minutes of 14th AC meeting.

Agenda 15.3   :   Action taken report on the decisions taken in the 14th meeting of the Academic Council.

The Academic Council discussed and noted the Action Taken Report.

Decision : The Academic Council took the action taken report on record.

Agenda 15.4   :   Approval for all printed sample of degrees format & degree matter for B.TECH. (F/T), B.TECH. (Evening), M.TECH. (FT/PT)/ MBA / MBA (Executive) / Ph.D.

It was informed to the Council that the 3rd convocation of the University is to be held on 8th December, 2016. Hon'ble L.G./Chancellor of the University has consented to be the Chief Guest on this occasion who shall confer the degrees to the successful candidates passed out the various UG, PG and Ph.D. program.

Earlier in previous convocation, the degrees were prepared manually by a Calligrapher. Now, the manual process of degree writing has been computerized. The format/design for computerized degree has been prepared for issuing to eligible students.

Decision : The Academic Council approved the degree formats & degree matter for B.TECH. (F/T), B.TECH. (Evening), M.TECH. (FT/PT)/ MBA / MBA (Executive) with minor changes. However, in case of Ph.D. degree the council authorized Vice Chancellor to constitute a committee to decide whether department/discipline is to be mentioned or otherwise. Revised samples of degree format are placed as *Annexure at page 1 to 3.*

Agenda 15.5   :   Approval for list of successful candidates for award of degree in 3rd convocation.

It was submitted to the Academic Council that the University is organizing third convocation on 08.12.2016. Hon'ble L.G./Chancellor of the University shall award the degrees to the students passing out various UG/PG programs. The degrees to the successful students of the following programs will be conferred in the forthcoming Convocation.
1. B.TECH. (Full Time)
2. B.TECH. (Evening)
3. M.TECH. (Full Time)
4. M.TECH. (PART-TIME)
5. MBA
6. MBA (Executive)
7. Doctor of Philosophy

The list of successful candidates who shall be awarded degree in various programs was tabled on the day of meeting for the perusal of the members.

Decision : The Academic Council approved the list of successful candidates for award of degree in 3rd convocation and also authorized Vice Chancellor to approve left out cases, if any.

Agenda 15.6 : Approval for amendment in the eligibility criteria for admission to full time MBA course.

It was submitted to the Academic Council that the BOS of the department of Delhi School of Management has approved the following amendment in the eligibility criteria for admission to Full Time MBA course in its meeting held on 29.08.2016:

"A candidate who has passed any graduate examination with 60% marks in aggregate from a recognized University/Institution is eligible to apply. However, a relaxation of 10% to SC/ST candidates shall be given in eligibility criteria. Those who are appearing in final semester examination may also apply, provided that they submit the proof of eligibility by a specific date decided by the University."

Decision : The Academic Council approved the proposed amendment in the eligibility criteria for admission to full time MBA course.

Agenda 15.7 : **Approval for schedule for MBA admission and withdrawal policy for batch 2017-19.**

It was submitted to the Academic Council that Delhi School of Management, DTU has submitted schedule for MBA Admission batch 2017-19 along with withdrawal policy.

Proposed Schedule for MBA Admission batch 2017-19:-

S. No.	Events	Previous year 2016-18	Current year 2017-19
1.	Uploading of Information bulletin and Application form on DTU website and DSM portal	14/01/2016 (Thursday)	11/01/2017 (Wednesday)
2.	Last date of submitting the completely filled application form	26/02/2016 (Friday)	28/02/2017 (Tuesday)
3.	Date of release of short-listed candidates for GD and Interview	18/03/2016 (Friday)	17/03/2017 (Friday)
4.	GD and Interview of short listed candidates	From 04/04/2016 (Monday)	From 10/04/2017 (Monday)
5.	Release of the list I of selected and waitlisted candidates	22/04/2016 (Friday)	02/05/2017 (Tuesday)
6.	Date of depositing the fee by the selected candidates of List I	29/04/2016 (Friday)	12/05/2017 (Friday)
7.	Release of List II for admission from the waitlisted candidates against vacant/withdrawal seats	04/05/2016 (Wednesday)	19/05/2017 (Friday)
8.	Date of depositing the fee by the candidate of List II	13/05/2016 (Friday)	26/05/2017 (Friday)
9.	Release of List III for admission from the waitlisted candidates against vacant/withdrawal seats	25/05/2016 (Wednesday)	02/06/2017 (Friday)
10.	Date of depositing the fee by the candidates of List III	03/06/2016 (Friday)	12/06/2017 (Monday)
11.	Release of List IV of selected candidates against vacant/withdrawal of seats	06/07/2016 (Wednesday)	07/07/2017 (Friday)
12.	Date of Final counselling and fee deposit by List – IV candidates	15/07/2016 (Friday)	19/07/2017 (Wednesday)
13.	Last date of submission of proof of eligibility		14/08/2017 (after this date, the admission shall stand automatically cancelled)

Withdrawal Policy: It was proposed to follow the same admission withdrawal policy which was followed for the MBA batch 2016-18 as given below:

Up to 15.07.2017	Refund of full fee after a deduction of Rs. 1000
After 15.07.2017	Only Security amount will be refunded

Decision : The Academic Council approved the schedule for MBA admission and withdrawal policy for batch 2017-19. However, being an administrative matter, it should be considered only as a reporting matter in future.

Agenda 15.8 : Approval for setting up a Centre for Linguistic Empowerment in DTU.

It was submitted to the Academic Council that the students and staff working in DTU are coming from different parts of the country and abroad. With a view to cater this situation the department of Humanities has proposed to set up a Centre for Linguistic Empowerment (CLE) for the benefit the students, faculty and staff members. Following programs are proposed to be run by the CLE:

1. Basic Communication Skills
2. English for Official Communication (for staff of DTU)
3. Basic Hindi non native speakers

Duration of these courses will be decided as per requirement and registration will be done in the beginning of every semester in August and January.

Decision : The Academic Council authorize the Vice Chancellor to constitute a committee to examine the matter for setting up a Centre for Linguistic Empowerment in DTU.

Agenda 15.9 : Approval for amendment to Rule 16 read along with Rule 15 of B.Tech. Ordinance, 2009.

It was submitted to the Academic Council that the as per B.Tech. Ordinance, 2009 a student is eligible to be awarded B.Tech. degree if he/ she earns a minimum of two hundred twenty eight credits as specified in each degree program subject to break up and compulsory credits as mentioned therein. However, a student may register in subjects leading to a maximum of two hundred forty credits in the entire course, subject to the proviso of Rule 16 General Notes (6) which reads as follow:

"The candidates securing a minimum of 228 credits shall be declared to have been qualified the B.Tech. final examination, provided they have not skipped or disqualified in more than four credits, in Core or Allied Engineering or applied sciences and humanities."

A number of student have represented that they may be awarded B.Tech. degree on earning 228 credits out of 240 credits without compulsory Rule of 16(6), the matter has been deliberated upon in detail among on Hon'ble V.C., Dean Academic UG, Dean Academic PG, Controller of Examination, Pro-Vice Chancellor, Registrar and OSD result. In the interest of students whose degree are stuck up due to Rule 16(6) of the Ordinance, it was decided to delete Rule 16(6) of the B.Tech Ordinance 2009, as a result the student can drop any 12 credits out of 240 maximum and therefore, may be awarded degree on earning two hundred twenty eight (228) credits out of two hundred forty (240) credits.

Decision : The Academic Council approved the amendment to Rule 16 read along with Rule 15 of B.Tech. Ordinance, 2009 for implementation to all the students governed by this Ordinance. These provisions shall also be applicable to the students pursuing B.Tech. (Evening) program.

Agenda 15.10 : Approval for award of B.Tech. degree to students admitted in 3rd semester (2nd year) of B.Tech. through lateral entry.

It was submitted to the Academic Council that the admission to 3rd semester (2nd year) B. Tech. through lateral entry started in 2013. All the requirements for award of degree to students admitted through lateral entry are governed by provisions in the relevant Ordinance for regular B. Tech. students. Ordinance is silent about minimum credits to be earned over six semesters i.e. from 3rd semester to 8th semester for award of degree to students admitted through lateral entry.

Following is the existing status of credits as per old and new schemes in respect of 4 year Regular B. Tech. (1st Sem to 8th Sem) scheme.

	B.Tech. Ordinance, 2009	B. Tech. Ordinance (1-A), 2015
Maximum Credits (8 semesters)	240	173
Total credits for first year	60	42
Total credits for rest of 6 semester (3rd to 8th semester)	180	131

As mentioned above students admitted through LEET in 3rd semester of B.Tech. take examinations for 6 semesters. Therefore, it is proposed that they will be eligible for award of degree on scoring 180 credits in 6 semesters and will be exempted from 60 credits of the 1st year in B. Tech. Ordinance 2009. Corresponding entry regarding exemption of 60 credits may be recorded in final consolidated mark sheet.

Therefore, credits requirements for award of B. Tech. degree for students who got admission to 3rd semester of B. Tech. (3rd semester to 8th semester) through LEET as per following details:

	B. Tech. Ordinance, 2009	B.Tech. Ordinance (1-A), 2015
Maximum Credits for the Students admitted through LEET (6 semesters)	180 {maximum 240 – (minus) 60 for first year}	131 {maximum 173 – (minus) 42 for first year}
Minimum Credits to be earned for award of degree	172	131

Further, students may drop any 08 credits to score 172 credits out of 180 for semester under B. Tech. Ordinance 2009. However, the students of 2015 batch onwards have to earn total 131 credits for award of B.Tech. degree.

Decision : The Academic Council approved the award of B.Tech. degree to students admitted in 3rd semester (2nd year) of B.Tech. through lateral entry.

Agenda 15.11 : Approval for amendment to B.Tech. Ordinance 1(A), 2015.

It was submitted to the Academic Council that the following amendment is proposed in B.Tech. Ordinance 1(A), 2015:

Sr. No.	Existing Rule	Proposed amendment
1.	R.25 (iii) Supplementary Examination: The highest grade that can be awarded in the Supplementary Examination shall be 'D'.	R.25 (iii) Supplementary Examination: Students will be awarded marks as per the performance in Supplementary exam. Accordingly, grades will be awarded on the basis of performance of the student in Supplementary exam and Table 7 of Absolute marks system.

2.	R.28 (i) Earned Minimum Credits and Minimum CGPA for the Degree: The credits for the courses in which a student has obtained 'D' (minimum passing grade for a course) grade or higher shall be counted as Credit Earned by him/her. A student who has a minimum CGPA of 5.0 and earned the required number of credits as specified in the UG curriculum he/she is registered for, is eligible for the award of the respective degree.	R.28 (i) Earned Minimum Credits and Minimum CGPA for the Degree: The credits for the courses in which a student has obtained 'D' (minimum passing grade for a course) grade or higher shall be counted as Credit Earned by him/her. A student who has earned the required number of credits as specified in the UG curriculum he/she is registered for, is eligible for the award of the respective degree.

Decision : The Academic Council approved the amendment to B.Tech. Ordinance 1(A), 2015 w.e.f. 01.08.2016 onwards.

Agenda 15.12 : **Approval for introduction of M.Tech. VLSI (P/T) course.**

It was submitted to the Academic Council that presently ECE department is running M.Tech. (P/T) program in Signal Processing & Digital Design (SPDD) with an intake of 05 students. However, for M.Tech. program in VLSI & Embedded System, there is no provision of admitting Part Time students.

Recently, NXP Semiconductor (Earlier free scale semiconductors) & NPL has discussed the matter for supporting academically to the M.Tech. program in VLSI & Embedded System. Further there is a strong demand from Electronic Design & Development industries for sponsoring Part Time students to M.Tech. program in VLSI & Embedded System.

The scheme and subjects of the part time course will be in line to the existing part time course in M.Tech. (SPDD).

In view of above, it was proposed to introduce M.Tech (P/T) program with the intake of 05 candidates in VLSI & Embedded System from Academic Session 2017-18.

Decision : The Academic Council approved 10 seats for part time students and 05 seats for sponsored candidates for all the M.Tech. programs by following Statutory reservation policy announced by the Government.
The Council further advised that the classes of part time students should be held along with regular students.
The Council also approved 05 seats for sponsored candidates in regular MBA program.

Agenda 15.13 : Approval for formal registration and conferring of Ph.D. candidacy to following Ph.D. Students upon successful completion of course work and comprehensive examinations and approval of research Plan by respective DRCs.

It was submitted to the Academic Council that Dean Academic-PG has forwarded a list of 76 candidates to consider their formal registration for Ph.D. candidature upon successful completion of course work and comprehensive examinations and sought approval for research plan by the respective DRCs. However, HOD (Humanities) informed that 01 candidate at serial number 55 has not registered for Ph.D. course.

Decision : **The Academic Council approved the formal registration and conferring of Ph.D. candidacy to 75 Ph.D. students upon successful completion of course work and comprehensive examinations and approval of research Plan by respective DRCs.**

Agenda 15.14 : Confirmation of admissions in the Academic Year 2016-17 for Ph.D and M.Tech./MBA (FT/PT) programs.

It was submitted to the Academic Council that 181 admissions in Ph.D., 324 in M.Tech.(FT/PT) and 115 in MBA (FT/PT) programs have been made in the Academic Year 2016-17.

Decision : **The Academic Council confirmed the admissions in the Academic Year 2016-17 for Ph.D., M.Tech. (FT/PT) and MBA (FT/PT) programs.**

Agenda 15.15 : Approval for withdrawal of admissions in the Academic Year 2016-17 for Ph.D., M.Tech. (FT/PT) and MBA (FT/PT) programs.

It was submitted to the Academic Council that the following admissions have been withdrawn during the Academic Year 2016-17 for Ph.D., M.Tech. and MBA programs. The list of the students is given below:

List of withdrawal of Ph.D students:

S.NO	Name	Roll.NO	Department	Stauts
1	VINEETA	2K16/Ph.D/ AP/07	Applied Physics	Full Time
2	ABHISHEK	2K16/Ph.D/ AM/05	Applied Mathematics	Full Time
3	SANDEEP KUMAR	2K16/Ph.D/ AM/12	Applied Mathematics	Full Time
4	DEEPSHIKHA YADAV	2K16/Ph.D/ EC/14	E&C	Part Time
5	TANVI SAXENA	2K16/Ph.D/ ME/37	Mechanical Engg	Part Time

List of withdrawal of M.Tech. Students:

S.No.	Name	Department/Branch
1	Dilip Singh Rajput	Thermal Engg
2	Manish Singh	Computational design
3	Pankaj Kaushik	Production Engg

However, 02 students namely Shreya Bansal and Ankush Katkar have withdrawn their admission from the MBA program.

Decision : **The Academic Council approved the withdrawal of admissions in the Academic Year 2016-17 for Ph.D., M.Tech. (FT/PT) and MBA (FT/PT) programs.**

Agenda 15.16 : Approval for creation of one supernumerary seat for Kashmiri Migrant each at M.Tech. and MBA level.

It was submitted to the Academic Council that a representation has been received regarding admission at M.Tech. level under J&K Migrants Quota. It has reported that some Universities/Institutes has marked the supernumerary seat for J&K Migrants. It was also stated that at least one seat has been reserved in merit quota in Technical/Professional institutions besides following concessions as per MHRD guidelines issued from time to time:-

1. Relaxation in cut-off percentage upto 10% subject to minimum eligibility requirement.
2. Increase in intake capacity upto 5% course-wise
3. Reservation of at least one seat in merit quota in technical/professional institutions
4. Waiving of domicile requirements

Accordingly, it was proposed that one seat in the complete M.Tech. program and one seat in MBA program may be reserved for Kashmiri migrates. There will be no relaxation in the minimum eligibility criteria. The merit will be made among the Kashmiri migrants applicants on the basis of GATE score in case of M.Tech. and CAT score in case of MBA candidates.

Decision : **The Academic Council approved the creation of one supernumerary seat for Kashmiri Migrant each at M.Tech. and MBA level subject to fulfilment of reservation policy laid down by the Government.**

Agenda 15.17 : Approval for correction in the scheme of B.Tech. (Evening) in Civil Engineering discipline.

It was submitted to the Academic Council that the University has formulated B.Tech. scheme and syllabus for all branches from 3rd semester to 8th semester, applicable to students admitted in the year 2015-16. The proposal was taken in the last academic council meeting and was approved by the Council. The department of Civil Engineering has found some typological errors in the scheme of B.Tech. (Evening) in Civil Engineering discipline for 1st year and 2nd year in the latest Brochure published for the purpose in the year 2016.

The existing scheme and the corrected schemes for the 1st and 2nd year are given below:

EXISTING SCHEME

I Year

							Odd Semester								
	Teaching Scheme					Contact Hours/Week		Exam Duration (h)		Relative Weights (%)					
S. No.	Subject Code	Course Title	Subject Area	Credit	L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE	
1	CEC-105	Basic Electronics & Instrumentation	AEC	4	3	0	2	3	0	15	25	20	40	-	
2	CCE-101	Civil Engineering Basics & Applications	DCC	4	3	0	2	3	0	15	25	20	40	-	
3	CCE-103	Engineering Analysis & Design	DCC	4	3	1	0	3	0	25	0	25	50	-	
4	CHU-101	Communication Skills	HMC	2	2	0	0	3	0	25	0	25	50	-	
	Total			14	11	1	4								
							Even Semester								
1	CEN-102	Environmental Engineering	AEC	4	3	0	2	3	0	15	25	20	40	-	
2	CCE-102	Engineering Mechanics	DCC	4	3	0	2	3	0	15	25	20	40	-	
3	CCE-104	Fluid Mechanics	DCC	4	3	0	2	3	0	15	25	20	40	-	
4	CHU-102	Fundamentals of Management	HMC	3	3	0	0	3	0	25	0	25	50	-	
	Total			15	12	0	6								

II Year

Odd Semester

S. No.	Subject Code	Course Title	Subject Area	Credit	L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE
								Exam Duration (h)		**Relative Weights (%)**				
1	CCE-201	Mechanics of Solids	DCC	4	3	0	2	3	0	15	25	20	40	-
2	CCE-203	Engineering Survey	DCC	4	3	0	2	3	0	15	25	20	40	-
3	CCE-205	Soil Mechanics	DCC	4	3	0	2	3	0	15	25	20	40	-
4	CHU-201	Professional Ethics and Human Values	HMC	2	2	0	0	3	0	25	0	25	50	-
		Total		14	11	0	6							

Even Semester

S. No.	Subject Code	Course Title	Subject Area	Credit	L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE
1	CCE-202	Hydraulics & Hydraulic Machines	DCC	4	3	0	2	3	0	15	25	20	40	-
2	CCE-204	Analysis of Determinate Structures	DCC	4	3	0	2	3	0	15	25	20	40	-
3	CCE-206	Design of RCC Structures	DCC	4	3	0	2	3	0	15	25	20	40	-
4	CHU-202	Engineering Economics	HMC	3	3	0	0	3	0	25	0	25	50	-
		Total		15	12	0	6							

CORRECTED SCHEME

I year

Odd Semester

S. No.	Subject Code	Course Title	Subject Area	Credit	L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE
								Exam Duration (h)		**Relative Weights (%)**				
1	CEC-105	Basic Electronics & Instrumentation	AEC	4	3	0	2	3	0	15	15	30	40	-
2	CCE-101	Civil Engineering Basics & Applications	DCC	4	3	0	2	3	0	15	15	30	40	-
3	CCE-103	Engineering Analysis & Design	DCC	4	3	1	0	3	0	25	0	25	50	-
4	CHU-101	Communication Skills	HMC	2	2	0	0	3	0	25	0	25	50	-
		Total		14	11	1	4							

Even Semester

S. No.	Subject Code	Course Title	Subject Area	Credit	L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE
1	CEN-102	Environmental Engineering	AEC	4	3	0	2	3	0	15	15	30	40	-
2	CCE-102	Engineering Mechanics	DCC	4	3	0	2	3	0	15	15	30	40	-
3	CCE-104	Fluid Mechanics	DCC	4	3	0	2	3	0	15	15	30	40	-
4	CHU-102	Fundamentals of Management	HMC	3	3	0	0	3	0	25	0	25	50	-
		Total		15	12	0	6							

II year

Teaching Scheme					Contact Hours/Week			Exam Duration (h)		Relative Weights (%)				
S. No.	Subject Code	Course Title	Subject Area	Credit	L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE
1	CCE-201	Mechanics of Solids	DCC	4	3	0	2	3	0	15	15	30	40	-
2	CCE-203	Engineering Survey	DCC	4	3	0	2	3	0	15	15	30	40	-
3	CCE-205	Soil Mechanics	DCC	4	3	0	2	3	0	15	15	30	40	-
4	CHU-201	Professional Ethics and Human Values	HMC	2	2	0	0	3	0	25	0	25	50	-
	Total			14	11	0	6							
Even Semester														
1	CCE-202	Hydraulics & Hydraulic Machines	DCC	4	3	0	2	3	0	15	15	30	40	-
2	CCE-204	Analysis of Determinate Structures	DCC	4	3	0	2	3	0	15	15	30	40	-
3	CCE-206	Design of RCC Structures	DCC	4	3	0	2	3	0	15	15	30	40	-
4	CHU-202	Engineering Economics	HMC	3	3	0	0	3	0	25	0	25	50	-
	Total			15	12	0	6							

Decision : The Academic Council approved the correction in the scheme of B.Tech. (Evening) in Civil Engineering discipline.

Supplementary Agenda 15.17 : Approval for Guidelines for award of prize for published paper.

It was submitted to the Academic Council that a committee was constituted under the Chairmanship of Hon'ble Vice Chancellor, DTU to frame guidelines for award of prize for published papers. The committee held series of meetings and after deliberation formed certain guidelines. However, some modifications have recently been made just after the meeting. Accordingly, modified guidelines are placed as *Annexure at page 4 to 5*.

Decision : The Academic Council approved the Guidelines for award of prize for published paper and authorize Vice Chancellor to include any other journal on the recommendation of the committee.

Supplementary Agenda 15.18 : Introduction of new courses for course work requirements of Ph.D.

It was submitted to the Academic Council that a series of request has been received from Department of Applied Mathematics and Department of E&C to consider and approve the following Pre-Ph.D. courses from the even semester:

1. Advanced Theory of Computation (AM-504 A) : (Deptt. of App. Maths.)
2. Advanced Mathematical Methods (AM-404-B) : (Deptt. of App. Maths.)
3. Numerical Methods for partial differential equations (AM-504-C) : (Deptt. of App. Maths.)
4. Cloud Computing (Deptt. of E&C)

Contents of the above courses have already been discussed among the members of BoS which is placed as *Annexure at page 6 to 9.*

Decision : The Academic Council approved the Introduction of new courses for course work requirements of Ph.D. along with contents.

Supplementary Agenda 15.19 : Revision of credit of Research Methodology (RM-901) and also for other courses in Ph.D.

It was submitted to the Academic Council that the Associate Head (CSE) has drawn the attention towards **UGC (Minimum Standards and Procedure for Award of M.Phil./ Ph.D. Degrees) Regulations, 2016.** As per the notification, the credit assignment to Ph.D. course work shall be minimum of **08 credits.** For implementation of "Course Work" component with minimum 08 credits in Ph.D., a meeting of all HoDs/Ph.D. Coordinators was called on 11.11.2016 at 04:00 P.M. In the meeting, matter was discussed thoroughly and resolved unanimously as under:

1. DSM will arrange one more credit in the course namely Research Methodology by arranging 10 hours classes for all the Ph.D. admitted students in the year 2016;

2. All the respective departments will arrange one seminar related to research which will have to attend/participate by all the Ph.D. admitted students in the year 2016 which will be having one credit value.

Decision : The Academic Council approved the revision of credit of Research Methodology (RM-901) and also for other courses in Ph.D.

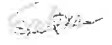**Agenda 15.20 : Any other matter with the permission of the Chair.**

The minutes are issued with the approval of the Chairman for circulation to Hon'ble Members.

(Prof. Samsher)
Link officer to Registrar

No. F.DTU/Org/AC/Meeting/01(1)/10/Vol-VI/ 10668-84   **Dated :** 25|11|16

Copy to:
1. Pr. Secretary to Hon'ble Lt. Governor (Delhi), 6, Raj Niwas, Civil Lines, Delhi.
2. PA to V.C. for kind information of the Vice Chancellor, DTU.
3. Prof. S. K. Jain, Professor, IIT-Delhi, Hauz Khas, New Delhi-110016
4. Mr. O. P. Bhutani, B-86, Surajmal Vihar, New Delhi-110092.
5. Prof. C.R. Babu, Professor Emiritus, Former Pro Vice Chancellor, University of Delhi-110007.
6. Prof. Vir Singh (Nominee from UGC), Department of Physics, IIT, Roorkee, Uttarakhand-247667.
7. Prof. B. J. Alappat (Nominee from AICTE), Department of Civil Engg., IIT-Delhi, Hauz Khas , New Delhi-110016.
8. Mr. Sanjeev Kumar Gupta (Nominee from FICCI), Managing Director (Corporate Affairs) M/S Accenture Services Pvt. Ltd., 7th Floor, Tower-C, Building No. 8, DLF Cyber City, Phase-II, Gurgaon-122002.
9. Prof. S. K. Garg, Pro Vice Chancellor, DTU
10. All Deans, DTU.
11. All HODs, DTU.
12. All Professors, DTU.
13. Dr. A.K. Madan, Associate Prof., Mech. Deptt.
14. Dr. Ranganath M.S., Assistant Prof., Mech. Deptt.
15. Controller of Examination, DTU.
16. Dy. Registrar, Accounts, DTU.
17. Registrar, DTU.

(Prof. Samsher)
Link officer to Registrar

ANNEXURE

For

Minutes

of 15th Meeting of

Academic Council,

DTU

18-11-2016

DTU Campus, Shahbad Daulatpur, Bawana Road, Delhi-110042

दिल्ली प्रौद्योगिकी विश्वविद्यालय
DELHI TECHNOLOGICAL UNIVERSITY

डॉक्टर ऑफ़ फिलॉसफी

विश्वविद्यालय की शैक्षणिक परिषद की अनुशंसा पर

दिनेश कुमार विश्वकर्मा

को डॉक्टर ऑफ़ फिलॉसफी की उपाधि प्रदान की जाती है, जिन्होंने इस उपाधि को प्रदान किए जाने हेतु विश्वविद्यालय के अध्यादेशों के तहत निर्धारित अपेक्षाओं को वर्ष में सफलतापूर्वक पूर्ण कर लिया है। इन्हें उक्त उपाधि से तृतीय दीक्षान्त समारोह में 8 दिसंबर 2016 को विभूषित किया गया।

शोध प्रबन्ध शीर्षक :- **एनालिसिस ऑफ़ वीडियो सीक्वेंसेज यूजिंग इंटेलिजेंट टेक्नीक्स**

Doctor of Philosophy

Upon the recommendation of the Academic Council of the University

DINESH KUMAR VISHWAKARMA

is awarded the degree of **Doctor of Philosophy** who has successfully completed the requirements prescribed under the ordinances of the University for the award of this degree, in the year . He/She is admitted to the said degree at the 3rd Convocation held on Dec 8, 2016.

Thesis Title :- **Analysis of Video Sequences using Intelligent techniques**

कुलसचिव
Registrar

दिल्ली, (भारत) दिनांक
Delhi, (India) dated on

Dec 8, 2016

कुलपति
Vice-Chancellor

दिल्ली प्रोद्योगिकी विश्वविद्यालय
DELHI TECHNOLOGICAL UNIVERSITY

मास्टर ऑफ़ बिज़नेस एडमिनिस्ट्रेशन (एक्जीक्यूटिव)

विश्वविद्यालय की शैक्षणिक परिषद की अनुशंसा पर

महेंद्र पाल वशिष्ठ

को **मास्टर ऑफ़ बिज़नेस एडमिनिस्ट्रेशन (एक्जीक्यूटिव)** की उपाधि प्रदान की जाती है, जिन्होंने इस उपाधि को प्रदान किए जाने हेतु विश्वविद्यालय के अध्यादेशों के तहत निर्धारित अपेक्षाओं को वर्ष 2016 में 10 अंकीय मापक्रम पर 8.11 संचयी कोटि अंक माध्य (सी.जी.पी.ए.) के साथ सफलतापूर्वक पूर्ण कर लिया है। इन्हें उक्त उपाधि से तृतीय दीक्षान्त समारोह में 8 दिसंबर 2016 को विभूषित किया गया।

विशेषज्ञता का क्षेत्र :- नॉलेज एंड टेक्नोलॉजी मैनेजमेंट एंड फाइनेंसियल मैनेजमेंट

Master of Business Administration (Executive)

Upon the recommendation of the Academic Council of the University

MAHENDER PAL VASHIST

is awarded the degree of **Master of Business Administration (Executive)** *who has successfully completed the requirements prescribed under the ordinances of the University for the award of this degree with a Cummulative Grade Point Average (CGPA) of 8.11 on a 10 point scale in the year 2016.*

He/She is admitted to the said degree at the 3rd Convocation held on Dec 8, 2016.

Area of Specialization :- **Knowledge and Technology Management** *and* **Financial Management**

कुलसचिव
Registrar

दिल्ली (भारत) दिनांक
Delhi (India) dated the

Dec 8, 2016

कुलपति
Vice-Chancellor

दिल्ली प्रौद्योगिकी विश्वविद्यालय
DELHI TECHNOLOGICAL UNIVERSITY

बैचलर ऑफ़ टेक्नोलॉजी

विश्वविद्यालय की शैक्षणिक परिषद की अनुशंसा पर

उदय सिंह

को ऑटोमोबाइल इंजीनियरिंग में बैचलर ऑफ़ टेक्नोलॉजी

की उपाधि द्वितीय श्रेणी में प्रदान की जाती है, जिन्होंने इस उपाधि को प्रदान किए जाने हेतु

विश्वविद्यालय के अध्यादेशों के तहत निर्धारित अपेक्षाओं को वर्ष 2015 में सफलतापूर्वक पूर्ण कर लिया है।

इन्हें उक्त उपाधि से तृतीय दीक्षान्त समारोह में 8 दिसंबर 2016 को विभूषित किया गया।

Bachelor of Technology

Upon the recommendation of the Academic Council of the University

UDAY SINGH

is awarded the degree of

Bachelor of Technology in Automobile Engineering

who has successfully completed the requirements prescribed under the ordinances of the University for the award of this degree in Second Class in the year 2015. He/She is admitted to the said degree at the 3rd Convocation held on Dec 8, 2016.

कुलसचिव
Registrar

दिल्ली (भारत) दिनांक
Delhi (India) Dated

Dec 8, 2016

कुलपति
Vice Chancellor

Guidelines for the Awards for Published Papers

The cash awards will be presented to faculty researchers in the recognition of importance of the published research work and to celebrate the individual excellence in research. The publications considered must be listed in SCI or SCI expanded. The awards will be granted for the journal papers published in each year (1st January-31st December, published along with DOI, pagination and year of publication). A call will be circulated annually and the entry form consisting of published research papers qualifying the selection criteria must be completed and returned. At least one of the authors must be a university faculty. The publication made in the journals, which seeks publication fee, shall not be considered for cash awards (irrespective of the listing in the publication houses specified in the below categories).

1. DEFINITIONS:

i. **"University"** shall mean Delhi Technological University (DTU), Delhi.
ii. **Paper:** Any publication appearing in journal namely "......" excluding letters to the editor and editorials. The publication must be electronically available online. One of the authors of the publication must be DTU faculty.
iii. **University Faculty:** An individual who is a regular faculty of the Delhi Technological University.
iv. **University Student:** shall mean a person registered for any degree in the Delhi Technological University.

2. AWARD CATEGORIES & SELECTION CRITERIA:

Outstanding Research Awards

A cash prize of Rs. 5,00,000/- will be awarded along with certificate of merit
Selection Criteria: The paper must be a SCI journal paper and published in the following:
- Nature Journal
- Science
- Harvard Business Review

In addition, the University Faculty who claims the cash awards for outstanding research category must have major contribution either as a First author or Corresponding author.

Category I – Premier Research Awards

A cash prize of Rs. 1,00,000/- will be awarded along with certificate of merit
Selection Criteria: The paper must be a journal paper, indexed in SCI or SCI expanded and published in the following:
1. Proceedings of Royal Society
2. American Mathematical Society
3. American Physical Society
4. American Society for Civil Engineers (ASCE)
5. American Society for Mechanical Engineers (ASME)
6. IEEE Transactions
7. Association for Computing Machinery (ACM) Transactions
8. Institute of Civil Engineering Publishing, London
9. Institute of Mechanical Engineering, London
10. American Society of Testing Materials (ASTM)
11. Nature Publishing Group

In addition to the above, the journals with impact factor more than 40 will be counted in category I.

Category II– Commendable Research Awards

A cash prize of Rs. 50,000/- will be awarded along with certificate of merit
Selection Criteria: The paper must be a journal paper, indexed in SCI or SCI expanded and published in the following:

1. IEEE Journals
2. Springer
3. Elsevier (Science Direct)
4. Oxford University Press
5. Pergamon-Elsevier Science Ltd
6. Cambridge University Press
7. Wiley-Blackwell
8. Blackwell Publishing
9. John Wiley & Sons
10. Institute of Engineering and Technology (IET)
11. Biomedical Central Ltd
12. MIT Press
13. Indiana University Press
14. American Meteorological Society
15. American Physiological Society
16. American Society for Microbiology
17. American Chemical Society
18. IOP Publishing Ltd.
19. Massachusetts Medical Society
20. IOS Press
21. Princeton University Press
22. Society of Industrial and Applied Mathematics
23. Proceedings of National Academy of Sciences of the USA

In addition to the above, SCI and SCI expanded indexed journal not included in the above list having impact factor more than five shall be considered for Category II.

How ever, in no case (in the lists consisting of outstanding, category I, and category II), the publication in a journal having impact factor less than one shall be considered.

3. REGULATIONS FOR DIVISION & DISTRIBUTION OF AWARD PRIZE

Case 1: If all the authors are amongst the university faculties, then first author will decide the individual author's contribution for the purpose of distribution of prize amount.

Case 2: If the authors are amongst the university faculties and the university students, then university faculty (whose name appears first in the paper) will decide the individual author's contribution for the purpose of distribution of prize amount.

Case 3: If one (or more) of the author/s is/are external to the university, then the prize amount will be divided by total number of authors and the equal part (one share) of the total prize amount will be disbursed to the university contributors. The prize amount of the external author will be subtracted from the total prize amount.

The committee recommends that the guidelines may be implemented w.e.f 1st January 2017.

2

1. Subject Code: AM-504 A   Course Title: Advanced Theory of Computation
2. Contact Hours: L-3   T-0   P-0
3. Examination Duration (Hrs.): Hrs. 3
4. Credits: 3

S.No.	Contents	Contact Hours
1.	**Automata:** Definition of an Automaton, Description of a Finite Automaton, Transition system & its properties, Acceptability of a string by a finite Automaton, Nondeterministic Finite Automaton (NDFA), Equivalence of DFA and NDFA, Minimization of finite automaton, Moore & Mealy machines.	6
2.	**Formal Languages:** Definition of a Grammar, Derivations, Language generated by a grammar, Chomsky classification of languages & their relation, operations on languages.	8
3.	**Regular Sets:** Regular expressions, Ardens theorem, Transition system containing Λ - moves, Kleene's theorem, Algebraic method using Arden's theorem, construction of finite automata equivalent to a regular expression, Equivalence of two finite automata, Pumping lemma for regular sets, closure Properties of regular sets.	8
4.	**Context Free Languages:** Definition of CFL, Derivation trees, Ambiguity in CFG, Simplification of CFG, Normal forms (CNF & GNF), Pumping lemma for CFL, Decision algorithms for CFL	8
5.	**Pushdown Automata:** Definition & Description of pda, Instantaneous description, Move relation, Acceptance by pda, Pda & CFL, Parsing & pda	6
6.	**Turing Machines:** Basic model, Definition & representation, Instantaneous description, Representation by transition table & transition diagram Language accepted by Turing Machine, Design of Turing Machine, Universal Turing Machine & other modifications, halting problem, NP completeness.	6

Suggested Books

S.No.	Name of Books/Authors/Publishers	Year of Publication/Reprin
1.	K.L.P. Mishra and N. Chandrasekaran, "Theory of Computer Science Automata, Languages and Computation", PHI	2012
2.	Martin J.C., "Introduction to Languages and Theory of Computations", TMH	2005

1. **Subject Code:** AM-504 B **Course Title:** Advanced mathematical methods.
2. Contact Hours: L-3   T-0   P-0
3. Examination Duration (Hrs.): Hrs.   Practical:
4. Relative Weightage: CWS: PRS: MTE: ETE: PRE:
5. Credits: 3
6. Semester:
7. Subject Area:
8. Pre-requisite: Some knowledge of ODE, Numerical methods, PDE
9. Objective:
10. Details of Course

S.No.	Contents	Contact Hours
1.	**Fundamentals:** First order nonlinear differential equations, Higher order nonlinear ODE, difference equations.	8
2.	**Local analysis:** Approximate solution of linear differential equations, Appro. Solution of nonlinear differential equations, Appro. Solution of difference equations. Asymptotic expansion of integrals	12
3.	**Perturbation methods:** perturbation series, summation of series.	10
4.	**Global Analysis:** Boundary layer theory, WKB theory, Multiple scale analysis.	10
	Total Lectures	40

Suggested Books:

S.No.	Name of Books/Authors/Publishers	Year of Publication/Reprint
1.	Advanced mathematical methods for scientists and engineers (Asymptotic methods and perturbation theory), Bender & Orszag, Springer	2008, Indian edition
2.	Introduction to perturbation methods , M.H. Holmes, Springer.	1998
3.	Perturbation Methods, E.J. Hinch, Cambridge text	1996

—7—

1. **Subject Code:** AM-504 C **Course Title: Numerical methods for partial differential equations**
2. Contact Hours: L-3   T-0   P-0
3. Examination Duration (Hrs.): Hrs.   Practical:
4. Relative Weightage: CWS: PRS: MTE: ETE: PRE:
5. Credits: 3
6. Semester:
7. Subject Area:
8. Pre-requisite: Some knowledge of ODE, Numerical methods, PDE
9. Objective:
10. Details of Course

S.No.	Contents	Contact Hours
1.	Introduction to finite difference method, derivation of various difference operator for uniform and non uniform meshes, convergence, consistency and stability for initial value problems, Lax theorem.	10
2.	Finite difference for parabolic and elliptic equations: derivation for difference equations, convergence, consistency and stability for parabolic equations, convergence for elliptic difference schemes, alternating direction implicit (ADI) scheme.	15
3.	Wave equations, scalar conservation laws, Riemann problem, linear stability, Nonlinear stability, basic numerical methods for scalar conservation laws and Euler equations.	15
	Total Lectures	40

Suggested Books:

S.No.	Name of Books/Authors/Publishers	Year of Publication/Reprint
1.	Numerical PDE: finite difference methods, J.W. Thomas, Springer	1995
2.	Computational Gasdynamics, C.B.Laney , Cambridge	1998
3.	The Finite Difference Method for ordinary and partial differential equations, R.J.Leveque, SIAM	2007

CLOUD COMPUTING SYLLABUS

S No	Contents
1	Overview of Computing Paradigm, Recent trends in Computing: Grid Computing, Cluster Computing, Distributed Computing, Utility Computing, Cloud Computing, Evolution of Cloud Computing and it's vision, features. Clouds: Introduction, History, components, types, services, challenges, technologies, Current applications of Cloud Computing (Microsoft Azure, Google AppEngine, Amazon Web services, Hadoop etc). Cloud Computing Architecture, Cloud computing stack, Reference Model (Services: IaaS, PaaS, SaaS), various cloud management platforms and tools, Deployment Models: Public cloud, Private cloud, Hybrid cloud, Community cloud
2	Virtualization of Clouds Virtualization: Introduction, Evolution, Virtualized Environment characteristics, Server Virtualization, VM Provisioning and Manageability, VM Migration Services, VM Provisioning in the Cloud Context, and Future Research Directions. Cloud Security Mechanisms (Encryption, PKI, SSO, IAM)
3	**Service Models:** **Infrastructure as a Service (IaaS):** Introduction, definition, virtualization, Different approaches to virtualization, Hypervisors, Machine Image, Virtual Machine (VM), Resource Virtualization: Server, Storage, Network Virtual Machine (resource) provisioning and manageability, storage as a service, Data storage in cloud computing(storage as a service), Examples: Amazon EC2 Renting, EC2 Compute Unit, Platform and Storage, pricing, customers, Eucalyptus **Platform as a Service(PaaS):** Introduction, Service Oriented Architecture (SOA), Cloud platform and management, computation, storage, Examples: Googel App Engine, Microsoft Azure, SalesForce.com **Software as a Service (SaaS):** Introduction, Web services, Web 2.0, Web OS and Case Study
4	**Service Management in Cloud Computing:** Service Level Agreements(SLAs), Billing & Accounting, Economics of scaling, Managing Data: Looking at Data, Scalability & Cloud Services, Database & Data Stores in Cloud, Large Scale Data Processing,
5	**Cloud Security:** Infrastructure Security, Network level security, Host level security, Application level security, Data security and Storage: Data privacy and security Issues, Jurisdictional issues raised by Data location, Identity & Access Management, Access Control, Trust, Reputation, Risk, Authentication in cloud computing, Client access in cloud, Cloud contracting Model, Commercial and business considerations
6	**Case Studies:** Open Source & Commercial Clouds, Eucalyptus, Microsoft Azure, Amazon EC2 and introduction of software: CloudSim

Suggested Books

S.No.	Name of Books / Authors/ Publishers	Year of Publication/ Reprint
1.	Cloud Computing Bible, Barrie Sosinsky, Wiley-India,	2010
2	Cloud Computing: Principles and Paradigms, Editors: Rajkumar Buyya, James Broberg, Andrzej M. Goscinski, Wile,	2011
3	Cloud Computing: Principles, Systems and Applications, Editors: Nikos Antonopoulos, Lee Gillam, Springer	2012
4	Cloud Security: A Comprehensive Guide to Secure Cloud Computing, Ronald L. Krutz, Russell Dean Vines, Wiley-India.	2010
5	Rajkumar Buyya, Christian Vecchiola, and Thamarai Selvi, Mastering Cloud Computing, Tata McGraw Hill, New Delhi, India,.	2013