S.D.M College of Engineering and Technology
Department of Electronics and Communication Engineering
Date: 23-3-2023

Circular

All the ___DPGC___ members are hereby informed to attend the ___Syllabus/scheme___ meeting scheduled on ___23-3-2023___ at ___3 PM___ in ___HOD Room___.

Agenda : Finalization of subjects to be offered for M.Tech in Electric vehicle technology from ECE Dept.

HOD, ECE

Prof. & Head
Dept. of Electronics & Communication Engg
SDM College of Engineering & Technology
Dharwad-Dharwad-580 002

SDM College of Engineering & Technology, Dharwad-02
Department of Electronics & Communication Engineering

Name of the Committee:	DPGC
Meeting called by:	HOD (chairman of DPGC)
Meeting Date: 23-3-23	Time 3 PM

Venue:	HOD chamber

Agenda

Finalization of subjects to be offered for M.Tech in EV Technology from ECE Dept.

Minutes of Meeting

Agenda No.	Details / Decisions/ Resolutions	Target Date	Member to follow up
1.	In the 1st semester M.Tech. Dept is offering Automotive technology as core subjects and its syllabus, CO/PO attainment as per VTU format is finalized.		DPGC (ms)
2.	In the Elective 2 group, microcontrollers and Embedded S/m for EV course and in Elective 3 group AIML course has been finalized and syllabus is made as per VTU guidelines.		
3.	In the 2nd semester m.tech in EV Techng., IoT and vehicle communication course (core) has been finalized.		

Members Present:

Sl. No.	Name	signature	Sl. No.	Name	signature
1	S A Joshi		15		
2	Vijaya C		16		
3	S. C. Sajjan		17		
4	Hemalata B		18		
5	Jayashree N		19		
6	S. V. Viraktamath		20		
7	H. V. Bhujle		21		
8			22		
9			23		
10			24		
11			25		
12			26		
13			27		
14			28		

SDMCET: Syllabus

Scheme of Teaching and Examinations – 2023
M. Tech., Electric Vehicle Technology (EVT)
I Semester M.Tech.

Course Code	Course Title	Teaching			Examination						
		L-T-P (Hrs./Week)	Credits	CIE Max. Marks	Theory (SEE) Max. Marks	Theory (SEE) Duration in hours	Practical (SEE) Max. Marks	Practical (SEE) Duration in hours			
22PRIC100	Research Methodology & IPR	3-0-0	3	50	100	3	-	-			
22PEVC100	Applied Mathematics	4-0-0	4	50	100	3	-	-			
22PEVC101	Advanced Electric Machines and Drives	3-2-0	4	50	100	3	-	-			
22PEVC102	Automotive Technology	4-0-0	4	50	100	3	-	-			
22PEVEXXX	Elective 1	4-0-0	4	50	100	3	-	-			
22PEVL103	Electric Vehicle drives and control systems Lab	0-0-3	2	50	-	-	50	3			
22PEVL104	Seminar	0-0-2	1	50	-	-	-	-			
	Total	18-2-5	22	350	500		50				

CIE: Continuous Internal Evaluation   SEE: Semester End Examination

L: Lecture   T: Tutorials   P: Practical

*SEE for theory courses is conducted for 100 marks and reduced to 50 marks.

**Classes and evaluation procedures are as per the policy prescribed for online courses by the respective organizations and PP is a must for the award of the Degree.

I & II Sem. M. Tech. (EVT) 2023–24

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SDMCET: Syllabus

Seminar is to be conducted every week and 2-3 students/week will present a topic from emerging areas in respective PG program preferably the contents not studied in their regular courses. The seminar shall be evaluated by 3 faculty members having specialization in respective program and allied areas.

Course Code	Elective 1
22PEVE110	Vehicle Dynamics and Aerodynamics
22PEVE111	Energy Storage Systems & Management

I & II Sem. M. Tech. (EVT) 2023–24

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SDMCET: Syllabus

Scheme of Teaching and Examinations – 2023
M. Tech., Electric Vehicle Technology (EVT)
II Semester M. Tech.

Course Code	Course Title	Teaching		CIE	Examination					
		L–T–P (Hrs./Week)	Credits	Max. Marks	Theory (SEE)		Practical (SEE)		
					*Max. Marks	Duration in hours	Max. Marks	Duration in hours		
22PEVC200	IoT and Vehicle Communication	4-0-0	4	50	100	3	-	-		
22PEVC201	Modelling & Simulation of EV	3-2-0	4	50	100	3	-	-		
22PEVEXXX	Elective 2	3-0-0	3	50	100	3	-	-		
22PEVEXXX	Elective 3	3-0-0	3	50	100	3	-	-		
22PEVEXXX	Elective 4	3-0-0	3	50	100	3	-	-		
22PEVL202	Battery Management system for EV - Simulation Lab	0-0-3	2	50	-	-	50	3		
22PEVL203	Seminar	0-0-2	1	50	-	-	-	-		
	Total	16-2-5	20	350	500		50			

CIE: Continuous Internal Evaluation   **SEE**: Semester End Examination

L: Lecture   **T**: Tutorials   **P**: Practical

*SEE for theory courses is conducted for **100 marks and reduced to 50 marks.**

** Classes and evaluation procedures are as per the policy prescribed for online courses by the respective organizations.

Seminar is to be conducted every week and 2-3 students/week will present a topic from emerging areas in respective PG program preferably the contents not studied in their regular courses. The seminar shall be evaluated by 3 faculty members having specialization in respective program and allied areas.

I & II Sem. M. Tech. (EVT) 2023–24

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Course Code	Elective 2
22PEVE210	Digital Manufacturing and Industry 4.0
22PEVE211	Microcontrollers and Embedded System for EV
	Elective 3
22PEVE212	Vehicle Design for E- Power train
22PEVE213	Artificial Intelligence and Machine Learning
	Elective 4
22PEVE214	Computational Methods and Optimization
22PEVE215	Hybrid Vehicle Technology

I & II Sem. M. Tech. (EVT) 2023–24

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S.D.M College of Engineering and Technology
Department of Electronics and Communication Engineering

Date: 10-5-2023

Circular

All the _____ D P G C _____ members are hereby informed to attend the _____ Scheme / syllabus _____ meeting scheduled on _10-5-2023_ at _____ 10 AM _____ in _____ HOD room _____ .

Agenda :
Finalisation of scheme / syllabus for M. Tech in Digital Electronics for the acedemic year 2022-23.

* (As per online course for M-Tech (DE) approval related meeting held on 17-3-2023)

HOD, ECE

SDM College of Engineering & Technology, Dharwad-02
Department of Electronics & Communication Engineering

Name of the Committee:	DPGC		
Meeting called by:	HOD (chairman of DPGC)		
Meeting Date: 10-5-23	Time 10 AM	Venue:	HOD Room

Agenda

Finalization of scheme/ syllabus for M. Tech in (Digital Electronics) for the acedemic year 2022-23

Ref:- BOS meeting held on 17-3-2023)

Minutes of Meeting

Agenda No.	Details / Decisions/ Resolutions	Target Date	Member to follow up
1.	Audit courses from 1st ad 2nd semester has been shifted to IVth semester and Bos has recommended online courses for the same.		
2.	Instead of internship, 3rd sem PG students are suggested to take an dept offered elective.		DPGC (MS)
3.	There will be 2 online courses to be completed on or before commencement of 4th semester		
4.	The DPGC has insisted to choose the online courses only from NPTEL.		

Members Present:

Sl. No.	Name	signature	Sl. No.	Name	signature
1	S A Joshi	fl.	15		
2	Vijaya c		16		
3	S C Sajjan		17		
4	Hemalatha B		18		
5	Jayashree N		19		
6	S V Virakthemath		20		
7			21		
8			22		
9			23		
10			24		
11			25		
12			26		
13			27		
14			28		

Scheme for III Semester

Course Code	Course Title	Teaching			Examination				
		L-T-P (Hrs/ Week)	Credits	CIE Max. Marks	Theory (SEE) Max. Marks	Duration in hours	Practical (SEE) Max. Marks	Duration in hours
22PDEC300	VLSI for Signal Processing	4-0-0	4	50	100	3		
22PDEE35X	Elective 5	3-0-0	3	50	100	3		
22PDEE35X	Elective 6	3-0-0	3	50	100	3		
22PDEE35X	Elective 7	4-0-0	4	50	100	3	--	--
				OR				
22PDEL300	**Internship in Industry or R&D organization	Min 4 weeks during vacation after 2nd sem	4	50	--	--	100	3
22PDEL301	***Project Phase-I	0-0-6	6	50			50	3
Total		14-0-6/10-4 weeks-6	20	250	400/ 300		50/150	

			Credits
3	22PDEE350	Advances in VLSI Design 4	4
3	22PDEE351	Error Control Coding 3	4
	22PDEE352	Wireless Sensor Networks	3
	22PDEE353	Image and Video Processing 3	4
	22PDEE354	Advanced DSP 4	3
	22PDEE355	Block Chain Technology 3	3
4	22PDEE356	Advanced Computer Architecture 3	3
	22PDEE357	Real Time Operating Systems 4	3

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*SEE for theory courses is conducted for 100 marks and reduced to 50 marks.

**Internship: The students are expected to undergo training in industry for a period of *four weeks* during the vacation immediately after completion of II Semester examination. A faculty is to be allotted to guide the student. A committee consisting of three faculty members shall evaluate the work carried out and the knowledge the students have acquired. OR students can take one elective course if they do not undergo internship.

***Project Phase-I: The students are expected to formulate the problem and carry out the intensive literature survey along with preliminary investigations supporting the project phase-II in IV semester.

Scheme for IV Semester

Course Code	Course Title	L-T-P (Hrs/Week)	Credits	CIE Max. Marks	Theory (SEE) Max. Marks	Theory (SEE) Duration in hours	Practical (SEE) Max. Marks	Practical (SEE) Duration in hours
22PDEL400	**Project Phase-II	0-0-22	18	100	--	--	100	3
22PDEEOA1	***BOS recommended ONLINE course	-	Audit (PP)	-	-	-	-	-
22PDEEOA2	***BOS recommended ONLINE course	-	Audit (PP)	-	-	-	-	-
Total		0-0-22	18	100	--	--	100	

CIE: Continuous Internal Evaluation   SEE: Semester End Examination

L: Lecture   T: Tutorials   P: Practical

- SEE for theory courses is conducted for 100 marks and reduced to 50 marks.
- ** Project Phase-II: The students are expected to work on a project for the full semester in an industry or an institution
- *** Classes and evaluation procedures are as per the policy prescribed for online courses by the institution.

Total Credits offered for the first year: 42
Total Credits offered for the Second year:38

Scheme for I Semester

| Course Code | Course Title | Teaching | | Examination | | | | |
| | | L-T-P (Hrs/Week) | Credits | CIE | Theory (SEE) | | Practical (SEE) | |
				Max. Marks	Max. Marks	Duration in hours	Max. Marks	Duration in hours
22PRIC100	Research Methodology and IPR	3-0-0	3	50	100	3		
22PDEC100	Applied Mathematics	4-0-0	4	50	100	3		
22PDEC101	Sequential Machines and Fault Analysis	4-0-0	4	50	100	3		
22PDEC102	Digital System Design Using Verilog	4-0-0	4	50	100	3		
22PDEE15X	Elective 1	4-0-0	4	50	100	3		
22PDEL101	Digital Circuits Simulation Laboratory	0-0-3	2	50			50	3
22PDEL102	Seminar	0-0-2	1	50				
Total		19-0-5	22	350	500		50	

Elective 1

22PDEE150	Introduction to Artificial Intelligence & Machine Learning
22PDEE151	IoT Applications
22PDEE152	Nano Electronics

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** Classes and evaluation procedures are as per the policy prescribed for online courses by the respective organizations.

Seminar is to be conducted every week and 2-3 students/week will present a topic from emerging areas in respective PG program preferably the contents not studied in their regular courses. The seminar shall be evaluated by 2 faculty members having specialization in respective program and allied areas.

Scheme for II Semester

| Course Code | Course Title | Teaching | | Examination | | | | |
| | | L-T-P (Hrs/Week) | Credits | CIE | Theory (SEE) | | Practical (SEE) | |
				Max. Marks	Max. Marks	Duration in hours	Max. Marks	Duration in hours
22PDEC200	Digital VLSI Design	4-0-0	4	50	100	3		
22PDEC201	Embedded System Design	4-0-0	4	50	100	3		
22PDEE25X	Elective 2	3-0-0	3	50	100	3		
22PDEE25X	Elective 3	3-0-0	3	50	100	3		
22PDEE25X	Elective 4	3-0-0	3	50	100	3		
22PDEL201	VLSI and Embedded Systems Laboratory	0-0-3	2	50			50	3
22PDEL202	Seminar	0-0-2	1	50				
Total		17-0-5	20	350	500		50	

Electives 2 to 4

22PDEE250	Parallel Computing
22PDEE251	Low Power Circuits and Systems
22PDEE252	Data Compression
22PDEE253	Artificial Neural Networks and Deep Learning
22PDEE254	Cryptography
22PDEE255	Wireless Communication Networks
22PDEE256	Micro Electro Mechanical Systems

CIE: Continuous Internal Evaluation   SEE: Semester End Examination

L: Lecture   T: Tutorials   P: Practical

* SEE for theory courses is conducted for **100 marks** and reduced to **50 marks**.

** Classes and evaluation procedures are as per the policy prescribed for online courses by the respective organizations.

Seminar is to be conducted every week and 2-3 students/week will present a topic from emerging areas in respective PG program preferably the contents not studied in their regular courses. The seminar shall be evaluated by 2 faculty members having specialization in respective program and allied areas.

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