

Internal Quality Assurance Cell (IQAC)  
Competency Based Course Allocation

**Preamble:** This form is intended to facilitate the Head of the Department to allocate the courses based on the competency of the courses being requested by the respective course instructor in each and every semester before the commencement of the semester. The HOD shall convene a meeting with all members of faculty in coordination with the time-table coordinator and allocate the courses based on the competency. Once the course is being allocated, the respective course instructor shall start preparing the course file and prepare the course plan in line with the course deliverables.

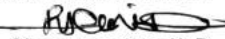
Department: **EEE**

Academic Year: **2022-2023**

Semester: **I, III, V, VII**

No.	Faculty	Specialization	No. of Courses Allotted				Courses Allotted & Mapping				HoD's Remark on Competency	
			I	III	V	VII	CODE	UG   PG	Already Handled		Y   N	Competency
									No. of Times	Avg. Pass %		
1	Dr. R. S.R.Krishnam Naidu	Power & Industrial Drives			PE		20EE502	UG	3	85%	Y	1,2,3
2	Mr. K. S.Ramanjaneyulu	Power Electronic Drives & Control	BEE				20ESX03	UG	1	100%	Y	1,2,3
3	Mr.K.M.M. Tarakesh	Power systems & Automation		DCMT			20EE304	UG	1	91.42%	Y	1,2,3
4	Mr. P.Mahesh	Power systems & Automation		PDDG		SGP	20EE501	UG	0	-	Y	1,2
5	Mrs.V. Usha Rani	Power systems & Control Automation		ECA		EADSM	20EE303	UG	2	80%	Y	1,2,3
6	Mr.A.Bala Raja Ram	Power systems & Control Automation	PP SUC				20ESX02	UG	1	84%	Y	1,2,3
7	Mr. B.Divakar	Power Systems	BEE BEE				20ESX03 20ESX03	UG			Y	1,2,3
8	Mrs.S.Yamini	Power Systems			DCS		20EE002 20EE305	UG	0 0	— —	Y	1
9	Mr.K.Naveen	Control & Automation		CI			20MCX02	UG	0	—	Y	1

**Note:** The HoD shall indicate the competency in the above table mentioning the following numbers while justifying the course allotment. 1. Technically strong in that particular course based on his/her observation. 2. Previous track record. 3. Students' feedback in earlier semesters. 4. Use of ICT tools and other teaching aids. 5. Contemporary inputs with practical insights.

  
Signature of the HoD

**DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**  
**2022-2023 ODD SEM WORK LOAD**

S.NO	NAME	SUBJECT/LAB	YEAR & BRANCH	THEORY	LAB	TOTAL WORK LOAD	Additional Responsibility in the Department	Additional Responsibility in the Institute
1	Dr.R.S.R. Krishnam Naidu (Asst.Prof. & HOD)	PE	III EEE	5		5	HOD Minutes of meetings Dept Research Committee coordinator DFRC (Department Project Coordinator)	Chief warden CEMS SPOC
2	Mr.K.S.Ramanjaneyulu (Asst. Prof.)	BEE	I ECE A	6		12	NAAC criteria 6	Exam Cell
		BEE	I ECE B	6			Mentor Control systems lab incharge Department mentor coordinator,	Test Center Admin
3	Mr.P.Mahesh (Asst.Prof.)	EADSM	IV EEE	6		18	Department TPO coordinator,	
		BEE	I EEE	6			NBA criteria-4 department incharge	
		ECA LAB	II EEE		6		NAAC criteria-3 department coordinator	
							Mentor Electrical Machines lab incharge course files and lesson plans verification Associate HOD	
4	Mr.K.M.M. Tirakesh (Asst.Prof.)	SOP	IV EEE	6		18	NBA coordinator,	
		DCMT	II EEE	6			NBA criteria-5 coordinator, NAAC criteria-2 coordinator,	
		DCMT LAB	II EEE		6		Mtech coordinator, Mentor,	
							skunni coordinator, Dept website coordinator, Circuits lab incharge Dept Nucleus committee member Dept examcell coordinator	
5	Mrs.V.USHA RANI (Asst.Prof.)	UEE	IV EEE	6		18	Department Industry-Institute Engagement In-Charge	Institute Industry-Institute Engagement Coordinator.
		PQT	II EEE	6			Department IQAC In-Charge,	
		PSS LAB	IV EEE		3		Department LMS coordinator,	
		MAT LAB	II EEE		4		Department Project Coordinator, Mentor, Simulation lab incharge	
6	Mr.A.BALA RAJA RAM (Asst.Prof.)	PPSUC	I EEE	6		18	NBA CRITERIA 1,7 INCHARGE	
		PPSUC LAB	I EEE		3		Department Autonomous Co-ordinator	
		C LANGUAGE	I DEEE	6			III YEAR CLASS TEACHER	
		C LAB	I DEEE		3		Mentor Power Electronics lab incharge NAAC criteria 4	
7	Mr.B.DIVAKAR (Asst.Prof)	EC	II DEEE	6		18	NBA CRITERIA 2 in charge	
		BCA	II EEE	6			TIMETABLE COORDINATOR, NAAC CRITERIA 7 incharge	
		ECA LAB	II EEE		6		Mentor Measurements lab incharge Certificate/ Addon courses, Guest lectures Bridge courses/remedial classes	
8	Mrs.S.YAMINI (Asst. Prof.)	DCS	IV EEE	6		17	2nd year Class Teacher	Institute Library In-Charge
		DCMT LAB	II EEE		3		Mentor	
		MATLAB	II EEE		8		P5 lab incharge	
9	Mr.K.NAVEEN (Asst.Prof)	PDDG	III EEE	6		14	4th year Class Teacher	
		C.I	II EEE	2				
		PSS LAB	IV EEE		3		Department Reports In-Charge.	
		BEEE LAB	II DME		3		Mentor	
10	Mrs.R.AMALESWARI (Asst. Prof.)	EV	III EEE			13		
		BEEE	II DME	6				
		PE LAB	III EEE		3			
		MATLAB	II EEE		4			
11	Mrs.D SAHITYA DEVI	RES	IV EEE	7		17		
		IRE5	III EEE	4				

11	(Asst. Prof.)	PE LAB	III EEE		3		
		EC LAB	II DEEE		3		
10	Mr. RAMI REDDY (Technician)						
11	Mr. SANTHOSH REDDY (Technician)						

~~TIME TABLE~~

  
HOD EEE  
(Dr. R. S. R. KRISHNAM MAIDU)

## Visakhapatnam 531 173

Department : EEE  
 Year/Semester : II / III  
 Chief Mentor : Mrs. S Yamini

Academic Year : 2022 - 2023  
 Class : 'A'

29-08-22  
 w. e. f.: 22-08-2022 onwards

Timing	Period								
	1	2	3	4	Lunch Break (50 Minutes)	5	6	7	8
Start Time	09:00 AM	09:50 AM	10:40 AM	11:30 AM			01:10 PM	02:00 PM	02:50 PM
End Time	09:50 AM	10:40 AM	11:30 AM	12:20 AM		02:00 PM	02:50 PM	03:40 PM	04:30 PM
Monday	20EC302 (SVR)	20EE304 (KMMT)	20EE305 (VUR)	20BSX13 (NVSP)		20EES01 / 20EE307 (RAM/SY/KMMT/KSR)			20EC302 (SVR)
Tuesday	20BSX13 (NVSP)	20EE304 (KMMT)	20EE303 (BDR)	20EE305 (VUR)		20EES01 / 20EE308 (SY/VUR/PM/BDR)			20EE305 (VUR)
Wednesday	20MCX02 (KN)	20EE303 (BDR)	20EE305 (VUR)	20BSX13 (NVSP)		20EC306 / 20EE307 (YHD/VS/KMMT/SY)			20EE303 (BDR)
Thursday	20EE304 (KMMT)	20EE303 (BDR)	20EC302 (SVR)	20EC302 (SVR)		20EC306 / 20EE308 (YHD/VS/PM/BDR)			20BSX13 (NVSP)
Friday	20EE305 (VUR)	20EC302 (SVR)	20EE304 (KMMT)	20MCX02 (KN)		20EE303 (BDR)	20BSX13 (NVSP)	MTP / LIB	20EE304 (KMMT)
Saturday	20EE304 (KMMT)	20EE305 (VUR)	20EC302 (SVR)	PBA		20EE303 (BDR)	20BSX13 (NVSP)	CT PREP	CT PREP
	CEMS INDUSTRIAL TRAINING (1st & 3rd Saturday)					CEMS INDUSTRIAL TRAINING (1st & 3rd Saturday)			

No.	Code	Course Title	Credit	Faculty
1	20BSX13	Numerical Methods and Transforms	3	Mrs.N Pallavi (NVSP)
2	20EC302	Electronic Devices and Circuits	3	Mr.S.Venkata Ramanaji (SVR)
3	20EE303	Electrical Circuit Analysis	3	Mr.B.Divakar (BDR)
4	20EE304	DC Machines and Transformers	3	Mr.K.M.M.Tarakesh (KMMT)
5	20EE305	Power Generation and Transmission	3	Mrs.V.Usha Rani (VUR)
6	20EC306	Electronic Devices and Circuits Lab	1.5	Mrs. Y H D Aparna (YHD) / Mrs.Vijayasree (VS)
7	20EE307	DC Machines and Transformers Lab	1.5	Mr.K.M.M.Tarakesh (KMMT) / Mr.K.S.Ramanjaneyulu(KSR) / Mrs. S. Yamini (SY)
8	20EE308	Electrical Circuit Analysis Lab	1.5	Mr.P.Mahesh(PM) / Mr.B.Divakar (BDR)
9	20EES01	MATLAB	2	Mrs. V. Usha Rani(VUR) / Mrs.R.Amaleswari(RAM) / Mrs. S. Yamini(SY)
10	20MCX02	Constitution of India		Mr.K.Naveen (KN)
11		CEMS Industrial Training	1	AMr.P.Mahesh(PM)
12		Mentoring (MTP) / Library (LIB)		Mrs. S. Yamini(SY)
13		Professional Body Activity (PBA)		Mrs. S. Yamini(SY)

Timetable Coordinator

Head of the Department

Nadimpalli Satyanarayana Raju Institute of Technology (NSRIT)  
Visakhapatnam 531 173

Department : EEE  
Year/Semester : III / V  
Chief Mentor : Mr.A Bala Raja Ram

Academic Year : 2022 - 2023  
Class : 'A'

29.08.22  
w. e. f.: 25-07-2022 onwards

Timing	Period								
	1	2	3	4	Lun ch Bre ak (50 Min utes )	5	6	7	8
Start Time	09:00 AM	09:50 AM	10:40 AM	11:30 AM			01:10 PM	02:00 PM	02:50 PM
End Time	09:50 AM	10:40 AM	11:30 AM	12:20 AM		02:00 PM	02:50 PM	03:40 PM	04:30 PM
Monday	20EE501 (KN)	20EE002 (SY)	20EC305 (YHD)	20EC305 (YHD)		20EEO01 (DSD)	20MCX03 (MMS)	QA (RK)	QA (RK)
Tuesday	20EE002 (SY)	20EC305 (YHD)	20EE502 (RSR)	20EE502 (RSR)		20EEO01 (DSD)	20EC308 (YHD)		
Wednesday	20EC305 (YHD)	20EE002 (SY)	20EE501 (KN)	20EE501 (KN)		20EEO01 (DSD)	TPW	TPW	20EC305 (YHD)
Thursday	20EE501 (KN)	20EE507 (RAM / DSD)				20EEO01 (DSD)	20EE502 (RSR)	MTP / LIB (ABRR)	20EE002 (SY)
Friday	20EE002 (SY)	20EE501 (KN)	20EE502 (RSR)	20EE502 (RSR)		20EC305 (YHD)	20MCX03 (MMS)	QA (RK)	SS (AVNSS)
Saturday	INTERNSHIP REVIEW	20EE002 (SY)	20EE002 (SY)	20EEO01 (DSD)(CT)		TPW REVIEW	20EC305 (YHD)(CT)	20EE501 (KN)(CT)	20EE502 (RSR)(CT)
	CEMS INDUSTRIAL TRAINING (1st & 3rd Saturday)						CEMS INDUSTRIAL TRAINING (1st & 3rd Saturday)		

No.	Code	Course Title	Credit	Faculty
1	20EE501	Power Distribution and Distributed Generation	3	Mr. K Naveen (KN)
2	20EE502	Power Electronics	3	Dr. R S R Krishnam Naidu (RSR)
3	20EC305	Digital System Design	3	Mrs. Y H D Aparna (YHD)
4	20EE002	Digital Control Systems(P.E I)	3	Mrs. S Yamini (SY)
5	20EEO01	Introduction of Renewable Energy Systems (O.E I)	3	Mrs. D Sahitya Devi (DSD)
6	20EC308	Digital System Design Laboratory	1.5	Mrs. Y H D Aparna (YHD)
7	20EE507	Power Electronics Laboratory	1.5	Mrs. R Amalawari (RAM)/Mrs. D Sahitya Devi (DSD)
8	20EESO3	MOOCs	2	Mr.A Bala Raja Ram (ABRR)
9	20MCX03	Intellectual Property Rights and Patents		Mr. M Madhan Sekhar (MMS)
10	QA	Quantitative & Aptitude		Mr. Rama Krishna (RK)
11	SS	Soft Skills		Mr. A V N S Sharma (AVNSS)
12	TPW	Technical Paper Writing		Mr.A Bala Raja Ram (ABRR)
13		Summer Internship # 1 Review	1.5	Mrs.V.Usha Rani (VUR)
14		CEMS Industrial Training	1	Mr.P. Mahesh (PM)
15		Mentoring (MTP) / Library (LIB)		Mr.A Bala Raja Ram (ABRR)
16	O.E	Introduction of Renewable Energy Systems		Room no. 310 (ECE Class Room) Mrs. D Sahitya Devi (DSD)

*[Signature]*  
Timetable Coordinator

Nadimpalli Satyanarayana Raju Institute of Technology (NSRIT)

*[Signature]*  
Head of the Department

Head of the Department

Dept. of Electrical & Electronics Engg

N.S. Raju Institute of Technology

Soniyam, Visakhapatnam - 531173

Nadimpalli Satyanarayana Raju Institute of Technology (NSRIT)  
Visakhapatnam 531 173

Department	: EEE	Academic Year	: 2022 - 2023
Year/Semester	: IV / VII	Class	: 'A'
Chief Mentor	: Mr.K NAVEEN		

w. e. f.: 04-07-2022 onwards

Timing	Period								
	1	2	3	4	Lun ch Bre ak (50 Min utes )	5	6	7	8
Start Time	09:00 AM	09:50 AM	10:40 AM	11:30 AM			01:10 PM	02:00 PM	02:50 PM
End Time	09:50 AM	10:40 AM	11:30 AM	12:20 AM		02:00 PM	02:50 PM	03:40 PM	04:30 PM
Monday	OOPS	RES	EADSM	SGP		UEE	RES (SRH)	PBA	EADSM (SRH)
Tuesday	UEE	RES	OOPS (CT)	SGP		LDIC LABORATORY			OOPS (SRH)
Wednesday	RES	EADSM	EADSM	OOPS		SGP (CT)	RES (CT)	UEE	UEE (SRH)
Thursday	EADSM	RES	SGP	OOPS		EADSM (CT)	UEE (CT)	MTP	SGP (SRH)
Friday	SGP	OOPS	RES	UEE		PSS LABORATORY			LIB
Saturday	INDUSTRIAL TRAINING					PROJECT-I			

No.	Code	Course Title	Credit	Faculty
1	R1941021	Switchgear Protection	3	Mr.K.M.M.Tarakesh (KMMT)
2	R1941022	OOPS through JAVA	3	Mr.A.Suraj Kumar (ASK)
3	R1941023	Renewable Energy Systems	3	Mrs.D Sahitya Devi (DSD)
4	R1941024 A	Elective II- Utilization of Electrical Energy	3	Mrs.V.Usha Rani (VUR)
5	R1941025 D	Elective III- Energy Auditing and Demand Side Management	3	Mr.P.Mahesh (PM)
6	R1941026	Linear & Digital IC Applications Laboratory	1	Mr M.Veeraih & Mrs.Vijayasree
7	R1941027	Power Systems & Simulation Laboratory	1	Mr.K.Naveen & Mrs.V.Usha Rani
8	R1941028	Industrial Training/Skill Development Program/Research Project	1	Mrs.V.Usha Rani (VUR)
9	R1941029	Project-I	2	Mr.K.Naveen (KN)
10	_____	Professional Body Activities (PBA)	___	Mr.K.Naveen (KN)
11	_____	Class Test(CT)	___	Subject Teachers
12	_____	Self Reflection Hour (SRH)	___	Subject Teachers
13	_____	Library (LIB)	___	Mr.K.Naveen (KN)
14				

  
Timetable Coordinator

  
Head of the Department

Estd. 2008

**NSRIT****NADIMPALLI SATYANARAYANA RAJU  
INSTITUTE OF TECHNOLOGY**

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Recognized under Section 2(f) of the UGC Act, 1956 || Accredited by NAAC with 'A' Grade (3.10/4.00)

**DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING  
2022-2023 EVEN SEM WORK LOAD**

S.NO	NAME	SUBJECT/LAB	YEAR & BRANCH	THEORY	LAB	TOTAL WORK LOAD
1	Dr.R.S.R. Krishnam Naidu (Assoc.Prof. & HOD)	SSED	III EEE	6		12
		BEEE LAB	I - II ME/CE		6	
2	Mr.K.S.Ramanjaneyulu (Asst. Prof.)	CS	II-II ECE A	6		21
		CS	II-II ECE B	6		
		CS LAB	II-II ECE A		3	
		CS LAB	II-II ECE B		6	
3	Mr.P.Mahesh (Asst.Prof.)	BEEE	I-II CSM	6		32
		BEEE	I-II CSD	6		
		EMI LAB	III EEE		3	
		BEEE LAB	I - II CSD		6	
		NA&ET LAB	I-II ECE A		3	
		PLC SOC	II-II EEE		8	
4	Mr.K.M.M. Tarakesh (Asst.Prof.)	HVDCT	IV EEE	6		30
		IMSM	II EEE	6		
		IMSM LAB	II EEE		6	
		BEEE LAB	I - II CSM		6	
		BEEE LAB	I - II ME/CE		6	
5	Mrs.V.USHA RANI (Asst.Prof.)	BEEE	I-II CSE B	6		30
		BEEE	I-II ME/CE	6		
		PSS LAB	III EEE		3	
		CS LAB	II-II ECE A		3	
		IA	II EEE		6	
		BEEE LAB	I-II CSE B		6	
6	Mr.A.BALA RAJA RAM (Asst.Prof.)	EMFT	II EEE	6		24
		EMI	III EEE	6		
		CS LAB	II EEE		6	
		BEEE LAB	I - II CSD		6	
7	Mr.B.DIVAKAR (Asst.Prof)	NA&S	I-II ECE A	6		30
		NA&S	I-II ECE B	6		
		PS-II	II DEEE	6		
		NA&ET LAB	I-II ECE A		6	
		NA&ET LAB	I-II ECE B		6	
		BEEE LAB	I-II CSE A		6	
		CS LAB	II-II ECE B		6	
		ESM	OE	6		
		BEEE	I-II CSE A	6		





**Nadimpalli Satyanarayana Raju Institute of Technology (NSRIT)**  
**Visakhapatnam 531 173**

Department : EEE  
 Year/Semester : IV / VIII  
 Chief Mentor : Mr. K Naveen

Academic Year : 2022 - 2023  
 Class : 'A'

w. e. f.: 05.12.2022 onwards

Timing	Period								
	1	2	3	4	Lunch Break (50 Minutes)	5	6	7	
Start Time	09:00 AM	09:50 AM	10:40 AM	11:30 AM			01:10 PM	02:00 PM	02:50 PM
End Time	09:50 AM	10:40 AM	11:30 AM	12:20 AM			02:00 PM	02:50 PM	03:40 PM
Monday	EPC	CERT (AR)	PSOC	PSOC			HVDCT	CERT (VUR)	EPC
Tuesday	HVDCT	HVDCT	PSOC	EPC			PSOC	CERT (VUR)	CERT (AR)
Wednesday	EPC	HVDCT	PSOC	EPC			HVDCT	CERT (AR)	MTP
Thursday	CC (SY)	CC (AR)	CC (PM)	CC (PM)			CC (KMMT)	CC (AR)	CC (BDR)
Friday	PW (AR)	PW (AR)	PW (BDR)	PW (KN)			PW (SY)	PW (KMMT)	PW (KN)
Saturday	CERT (AR)	CERT (BDR)	CERT (SY)	CERT (VUR)		PW (KMMT)	PW (AR)	PW (DSD)	

No.	Code	Course Title	Credit	Faculty
S1	R1942XXX	Power System Operation and Control (PSOC)	3	Mrs.D.Sahitya Devi (DSD)
2	R1942XXX	HVAC & DC Transmission (HVDCT)	3	Mr.K.M.M.Tarakesh (KMMT)
3	R1942XXX	Environmental Pollution & Control (EPC)(O.E)	3	Mr. G Chanikya (GCY)
4	R1942XXX	Project Work (PW)	8	Dr RSR Krishnam Naidu(RSR)
5		Coaching Classes (CC)	-	Mr.K Naveen (KN)
6		Mentoring Period (MTP)	-	Mr.K Naveen (KN)
7		Certification Course (CERT)	-	Mr.K Naveen (KN)

*B. Deiv*  
 Timetable Coordinator

*ole*  
*Head of the Department*

*R. Ceena*  
 Head of the Department  
 26/12/22  
 Dept. of Electrical & Electronics Engg.  
 S. Raju Institute of Technology Autonomous  
 Sontyam, Visakhapatnam - 531 173

**Nadimpalli Satyanarayana Raju Institute of Technology (NSRIT)**  
Visakhapatnam 531 173

Department : EEE  
Year/Semester : III / VI  
Chief Mentor : Mr. B Divakar

Academic Year : 2022 - 2023  
Class : 'A'

w. e. f.: 12 :12: 2022 onwards

Timing	Period							
	1	2	3	4	Lunch Break (50 Minutes)	5	6	7
Start Time	09:00 AM	09:50 AM	10:40 AM	11:30 AM			01:10 PM	02:00 PM
End Time	09:50 AM	10:40 AM	11:30 AM	12:20 AM		02:00 PM	02:50 PM	03:40 PM
Monday	20EE603 (KN)		20EE607 (PM)			20EEO02 (SY)	20EE602 (ABRR)	20EE602 (ABRR)
Tuesday	20EE603 (KN)		20EC606 (MVSR)			20EEO02 (SY)	20EC603 (MVSR)	20EE006 (RSR)
Wednesday	20EC603 (MVSR)	20EE602 (ABRR)	QA (SR)	QA (SR)		20EEO02 (SY)	20EC603 (MVSR)	20EE603 (KN)
Thursday	20EES04 (VUR)					20EEO02 (SY)	20EE006 (RSR)	MTP / LIB (BDR)
Friday	20EE602 (ABRR)	20EC603 (MVSR)	20EE006 (RSR)	20EE006 (RSR)		20EE608 (VUR)		
Saturday	20EE603 (KN)	20EE603 (KN)	20EE602 (ABRR)	20EE006 (RSR)		20EEO02 (SY)	CT (ABRR/RSR)	CT (KN/MVSR)
	CEMS INDUSTRIAL TRAINING (1st & 3rd Saturday)					CEMS INDUSTRIAL TRAINING (1st & 3rd Saturday)		

No.	Code	Course Title	Credit	Faculty
1	20EC603	Micro Processors and Micro Controllers	3	Mrs.M V S Roja Ramani (MVSR)
2	20EE602	Electrical Measurements and Instrumentation	3	Mr.A Bala Raja Ram (ABRR)
3	20EE603	Power System Analysis	3	Mr. K Naveen (KN)
4	20EE006	Solid State Electric Drives	3	Dr. R S R Krishnam Naidu (RSR)
5	20EC606	Micro Processors and Micro Controllers Lab	1.5	Mrs.M V S Roja Ramani (MVSR)
6	20EE607	Electrical Measurements and Instrumentation Lab	1.5	Mr.P Mahesh (PM)
7	20EE608	Power Systems and Simulation Lab	1.5	Mrs.V.Usha Rani (VUR)
8	20EES04	P-SPIICE	2	Mrs.V.Usha Rani (VUR)
9	20MCX04	Indian Traditional Knowledge		Mr. K Naveen (KN)
10	QA	Quantitative & Aptitude		Mrs. Sandya Rani (SR)
11		CEMS Industrial Training	1	Mr.P. Mahesh (PM)
12		Mentoring (MTP) / Library (LIB)		Mr.B Divakar (BDR)

13	20EEO02	Electrical Safety and Management (OE)	3	Block - 1 Room No: 310	Mrs. S Yamini (SY)
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*B. Divakar*  
Timetable Coordinator

*[Signature]*  
Head of the Department  
15/12/22  
Dept. of Electrical & Electronics Engg.,  
N.S. Raju Institute of Technology Autonomous  
Sontyam, Visakhapatnam - 531 173

Department : EEE  
 Year/Semester : II / IV  
 Chief Mentor : Mrs. S Yamini

Academic Year : 2022 - 2023  
 Class : 'A'

w. e. f.: 18.01.2023 onwards

Timing	Period							
	1	2	3	4	Lunch Break (50 Minutes)	5	6	7
Start Time	09:00 AM	09:50 AM	10:40 AM	11:30 AM			01:10 PM	02:00 PM
End Time	09:50 AM	10:40 AM	11:30 AM	12:20 AM		02:00 PM	02:50 PM	03:40 PM
Monday	20EE403 (AR)	20EE404 (KMMT)	QA (SR)	20HSX03 (AML)		20EES02 / 20EE407 (KN / PM / VUR / SY)		
Tuesday	20EE403 (AR)	20BSX15 (NVSP)	20BSX15 (NVSP)	QA (SR)		20EE406 / 20EE408 (KMMT/ KN / ABRR / DSD)		
Wednesday	20EE403 (AR)	20EE407 / 20EES02 (VUR / SY / KN / PM)				20HSX03 (AML)	20EE406 (ABRR)	20EE406 (ABRR)
Thursday	20BSX15 (NVSP)	20EE403 (AR)	20EE404 (KMMT)	20EE404 (KMMT)		20EE406 (ABRR)	20HSX03 (AML)	MTP
Friday	20EE404 (KMMT)	20EE408 / 20EE406 (ABRR / DSD / KMMT / KN)				20EE403 (AR)	20BSX15 (NVSP)	20EE406 (ABRR)
Saturday	20EE406 (ABRR)	QA (SR)	20EE403 (AR)	20BSX15 (NVSP)		20EE404 (KMMT)	20EES02 (KN / PM)	CT
	CEMS INDUSTRIAL TRAINING (1st & 3rd Saturday)					CEMS INDUSTRIAL TRAINING (1st & 3rd Saturday)		

No.	Code	Course Title	Credit	Faculty
1	20HSX03	Managerial Economics and Financial Analysis	3	Mrs.A. Madhavi Latha (AML)
2	20BSX15	Probability and Statistics	3	Mrs. NVS Pallavi (NVSP)
3	20EE403	Control Systems	3	Mrs.R.Amaleswari (AR)
4	20EE404	Induction Motors and Synchronous Machines	3	Mr.K.M.M.Tarakesh (KMMT)
5	20EE405	Electro Magnetic Fields	3	Mr.A Bala Raja Ram (ABRR)
6	20EE406	Induction Motors and Synchronous Machines Laboratory	1.5	Mr.K.M.M.Tarakesh (KMMT) / Mr. K Naveen (KN)
7	20EE407	Industrial Automation for Electrical and Electronics Engineering	1.5	Mrs.V.Usha Rani (VUR) / Mrs. S. Yamini(SY)
8	20EE408	Control Systems Laboratory	1.5	Mr.A Bala Raja Ram (ABRR) / Mrs.D.Sahitya Devi (DSD)
9	20EES02	Programmable Logic Controller (PLC)	2	Mr. K Naveen (KN) / Mr. P.Mahesh(PM)
10	QA	Quantitative and Aptitude		Mrs. Sandya Rani (SR)
11	CEMS	CEMS Industrial Training	1	Mr. P.Mahesh(PM)
12	MTP / LIB	Mentoring / Library	—	Mrs. S. Yamini(SY)

Timetable Coordinator

Head of the Department

Nadimpalli Satyanarayana Raju Institute of Technology (NSRIT)  
Visakhapatnam 531 173

Department  
Year/Semester  
Chief Mentor

Mechanical Engg  
II / III

Mr. CH V V. Krishna Murthi

Academic Year  
Class

2022 - 2023  
'A'

v. n. l. 18 08 2022 onwards

Timing	Period							
	1	2	3	4	5	6	7	8
Start Time	09 00 AM	09 50 AM	10 40 AM	11 30 AM	01 10 PM	02 00 PM	02 50 PM	03 40 PM
End Time	09 50 AM	10 40 AM	11 30 AM	12 20 AM	02 00 PM	02 50 PM	03 40 PM	04 30 PM
Monday	20ME301 (KA)	20MES01 (KRP)			20BSX13 (NSN)	20ME302 (GS)	20ME304 (NP)	20MCX02 (KA)
Tuesday	20ME304 (NP)	20ME301 (KA)	20BSX13 (NSN)	20ME302 (GS)	20ME303 (VKM)	20ME306/20ME307 (BUR) / (NP)		
Wednesday	20BSX13 (NSN)	20ME304 (NP)	20ME303 (VKM)	20ME301 (KA)	20ME302 (GS)	20ME305/20ME307 (GS) / (NP)		
Thursday	20ME302 (GS)	20ME303 (VKM)	20BSX13 (NSN)	20ME301 (KA)	20ME304 (NP)	20ME305/20ME306 (GS) / (BUR)		
Friday	20ME303 (VKM)	20ME301 (KA)	20BSX13 (NSN)	20ME302 (GS)	20ME303 (VKM)	20ME304 (NP)	20MCX02 (KA)	MENTORING / LIBRARY
Saturday	INDUSTRIAL ENGAGEMENT (TKK)				INDUSTRIAL ENGAGEMENT (TKK)			

Sl. No.	Code	Course Title	Credit	Faculty
1	20BSX13	Numerical Methods and Transforms	3	Dr V.Surya narayana (NSN)
2	20ME301	Thermodynamics	3	Mr.K.Abhinash (KA)
3	20ME302	Material Science and Metallurgy	3	Mr.G.Siva Sai (GS)
4	20ME303	Mechanics of Solids	3	Mr.CH.V.V.Krishna Murthi (VKM)
5	20ME304	Manufacturing Processes	3	Dr.N.Pallavi (NP)
6	20ME305	Material Science and Metallurgy Lab	1.5	Mr.G.Siva Sai (GS) / Mr.K.Ram Prasad (KRP)
7	20ME306	Mechanics of Solids Lab	1.5	Mrs.B.Usha Rani (BUR) / Mr.K.Abhinash (KA)
8	20ME307	Manufacturing Processes Lab	1.5	Dr.N.Pallavi (NP) / Mrs.B.Usha Rani
9	20MES01	Computer Aided Modelling	3	Mr K.Ram Prasad (KRP)
10	20MCX02	Constitution of India	-	Mr K.Abhinash (KA)
11		Industrial Engagement	-	Mr.T.Krishna Kumar (TKK)

Timetable Coordinator

Head of the Department  
Mechanical Engineering

Class Timetable

NSRIT, IOAC - OMS

Nadimpalli Satyanarayana Raju Institute of Technology (NSRIT)  
Visakhapatnam 531 173

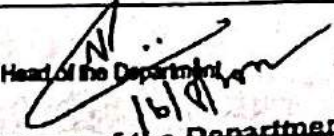
Department : Mechanical Engg Academic Year : 2022 - 2023  
Year/Semester : II / III Class : 'A'  
Chief Mentor : Mr. CH.V.V.Krishna Murthi

w. e. l: 18.08.2022 onwards

Timing	Period								
	1	2	3	4	5	6	7	8	
Start Time	09:00 AM	09:50 AM	10:40 AM	11:30 AM		01:10 PM	02:00 PM	02:50 PM	03:40 PM
End Time	09:50 AM	10:40 AM	11:30 AM	12:20 AM		02:00 PM	02:50 PM	03:40 PM	04:30 PM
	20ME301 (KA)	20MES01 (KRP)				20BSX13 (NSN)	20ME302 (GS)	20ME304 (NP)	20MCX02 (KA)
Tuesday	20ME304 (NP)	20ME301 (KA)	20BSX13 (NSN)	20ME302 (GS)	Lunch Break (50 Minutes)	20ME303 (VKM)	20ME306/20ME307 (BUR) / (NP)		
Wednesday	20BSX13 (NSN)	20ME304 (NP)	20ME303 (VKM)	20ME301 (KA)		20ME302 (GS)	20ME305/20ME307 (GS) / (NP)		
Thursday	20ME302 (GS)	20ME303 (VKM)	20BSX13 (NSN)	20ME301 (KA)		20ME304 (NP)	20ME305/20ME306 (GS) / (BUR)		
Friday	20ME303 (VKM)	20ME301 (KA)	20BSX13 (NSN)	20ME302 (GS)		20ME303 (VKM)	20ME304 (NP)	20MCX02 (KA)	MENTORING / LIBRARY
Saturday	INDUSTRIAL ENGAGEMENT (TKK)					INDUSTRIAL ENGAGEMENT (TKK)			

Sl. No.	Code	Course Title	Credit	Faculty
1	20BSX13	Numerical Methods and Transforms	3	Dr.V.Surya narayana (NSN)
2	20ME301	Thermodynamics	3	Mr.K.Abhinash (KA)
3	20ME302	Material Science and Metallurgy	3	Mr.G.Siva Sai (GS)
4	20ME303	Mechanics of Solids	3	Mr.CH.V.V.Krishna Murthi (VKM)
5	20ME304	Manufacturing Processes	3	Dr.N.Pallavi (NP)
6	20ME305	Material Science and Metallurgy Lab	1.5	Mr.G.Siva Sai (GS) / Mr.K.Ram Prasad (KRP)
7	20ME306	Mechanics of Solids Lab	1.5	Mrs.B.Usha Rani (BUR) / Mr.K.Abhinash (KA)
8	20ME307	Manufacturing Processes Lab	1.5	Dr.N.Pallavi (NP) / Mrs.B.Usha Rani
9	20MES01	Computer Aided Modelling	3	Mr.K.Ram Prasad (KRP)
10	20MCX02	Constitution of India	-	Mr.K.Abhinash (KA)
11		Industrial Engagement	-	Mr.T.Krishna Kumar (TKK)

  
Timetable Coordinator

  
Head of the Department

Head of the Department  
Mechanical Engineering  
N.S. Raju Institute of Technology (A)  
Visakhapatnam

Nadimpalli Satyanarayana Raju Institute of Technology (NSRIT)  
Visakhapatnam 531 173

Department  
Year/Semester  
Chief Mentor

Mechanical Engg  
III / V  
Mr T.Krishna Kumar

Academic Year  
Class

2022 - 2023  
'A'

w e f 25-07-2022 onwards

Timing	Period							
	1	2	3	4	5	6	7	8
Start Time	09:00 AM	09:50 AM	10:40 AM	11:30 AM	01:10 PM	02:00 PM	02:50 PM	03:40 PM
End Time	09:50 AM	10:40 AM	11:30 AM	12:20 AM	02:00 PM	02:50 PM	03:40 PM	04:30 PM
Monday	20ME503 (VKM)	20ME501 (RRR)	20ME502 (TKM)	20ME002 (NP)	20ME001 (SK)	20ME506 / 20ME507 (RRR) / (NSK)		
Tuesday	20ME501 (RRR)	20ME502 (TKM)	20ME503 (VKM)	20ME002 (NP)	20ME001 (SK)	TPW (RRR)		LIBRARY
Wednesday	20ME002 (NP)	20ME503 (VKM)	20ME501 (RRR)	20ME502 (TKM)	20ME001 (SK)	QA (RK)		SS (AVNS)
Thursday	20ME002 (NP)	20ME502 (TKM)	20ME501 (RRR)	20ME503 (VKM)	20ME001 (SK)	20MCX03 (KMS)	20ME501 (RRR)(SR)	QA (RK)
Friday	20ME502 (TKM)	20ME002 (NP)	20ME503 (VKM)	20ME501 (RRR)	20MCX03 (KMS)	20ME506 / 20ME507 (RRR) / (NSK)		
Saturday	Skill Oriented Course / MOOCS (TKK) / (RRR)				SKILL Oriented Course / Internship Review (TKK) / (RRR)			

Sl. No.	Code	Course Title	Credit	Faculty
1	20ME501	Dynamics of Machinery	3	Dr Raghu Ram Reddy (RRR)
2	20ME502	Design of Machine Elements -I	3	Mr T.Krishna Kumar (TKK)
3	20ME503	Metal Cutting and Machine Tools	3	Mr CH V V Krishna Murthi (VKM)
4	20ME002	Unconventional Machining Process	3	Dr N.Pallavi (NP)
5	20ME001	Nano -Technology	3	Mr Surya Kanth (SK)
6	20MCX03	Intellectual Property rights and Patents	-	Mr K.Madhan Sekhar (KMS)
7	20ME506	Dynamics of Machinery Lab	1.5	Dr Raghu Ram Reddy (RRR) / Mr K.Abhinash (KA)
8	20ME507	Metal Cutting and Machine Tools Lab	1.5	Mr N Suneel Kumar (NSK) / Dr N.Pallavi (NP)
9	TPW	Technical Paper Writing	-	
10	SOC/MOOCs	Skill Oriented Course/Internship /MOOCS	-	Mr T.Krishna Kumar (TKK) / Dr.Raghu Ram Reddy (RRR)
11	QA	Quantitative & Aptitude	-	Mr.Rama Krishna
12	SS	Soft Skills	-	Mr.A.V.N.S.Sharma

Timetable Coordinator

Head of the Department

AC 19

Form No.: 2021-AC 19-00-01 Nadimpalli Satyanarayana Raju Institute of Technology

Head of the Department  
Mechanical Engineering

Nadimpalli Satyanarayana Raju Institute of Technology (NSRIT)  
Visakhapatnam 531 173

Department  
Year/Semester  
Chief Mentor

Mechanical Engg  
IV / VII  
Mr. B Usha Rani

Academic Year  
Class


2022 - 2023  
'A'

w.e.f. 04.07.2022 onwards

Timing	Period								
	1	2	3	4	5	6	7	8	
Start Time	09:00 AM	09:50 AM	10:40 AM	11:30 AM	01:10 PM	02:00 PM	02:50 PM	03:40 PM	
End Time	09:50 AM	10:40 AM	11:30 AM	12:20 AM	02:00 PM	02:50 PM	03:40 PM	04:30 PM	
Monday	IM (AMS)	FEM (BUR)	FEM (BUR)	NT (SK)	Lunch Break (50 Minutes)	PPC (KRP) (SR)			FES LAB (SK)
Tuesday	IAR (NSK)	FEM (BUR)	NT (SK)	PPC (KRP)		IM (AMS)	IAR (NSK) (SR)	NT (SK)	NSS
Wednesday	PPC (KRP)	PPC (KRP)	NT (SK) (SR)	FEM (BUR)		IAR (NSK)	IM (AMS)	Mentoring (NSK)	LIBRARY
Thursday	IAR (NSK)	IM (AMS)	FEM (BUR)	PPC (KRP)		IM (AMS) (SR)	IAR (NSK)	NT (SK)	PBA
Friday	NT (SK)	FEM (BUR) (SR)	PPC (KRP)	IAR (NSK)		IM (AMS)	FES LAB (SK)		
Saturday	Project / Internship (BUR)					Project / Internship (BUR)			

Sl. No.	Code	Course Title	Credit	Faculty
1		Industrial Management	3	Mr.K.Madhan Sekhar (AMS)
2		Finite Element Methods	3	Mrs.B Usha Rani (BUR)
3		Production Planning & Control	3	Mr.K.Ram Prasad (KRP)
4		Industrial Automation and Robotics	3	Mr.N.Suneel Kumar(NSK)
5		Nano Technology	3	Mr.Surya Kanth (SK)
6		Finite Element Simulation Lab	3	Mr.Surya Kanth (SK)
7		Project / Internship	-	Mr.B.Usha Rani (BUR)
8		Self Reflection (SR)		
9		Professional Body Activity		Mr.K.Ram Prasad (KRP)

  
Timetable Coordinator

  
Head of the Department  
Head of the Department  
Mechanical Engineering

AC 19

Form No.: 2021. AC 19. 00. 01 Nadimpalli Satyanarayana Raju Institute of Technology

N.S. Raju Institute of Technology  
Visakhapatnam-531173

Nadimpalli Satyanarayana Raju Institute of Technology (NSRIT)  
Visakhapatnam 531 173

Department  
Year/Semester  
Chief Mentor

Mechanical Engg  
IV / VII  
Mr K Ram Prasad

Academic Year  
Class

2022 - 2023  
'B'

w e f 04 07 2022 onwards

Timing	Period							
	1	2	3	4	5	6	7	8
Start Time	09 00 AM	09 50 AM	10 40 AM	11 30 AM	01 10 PM	02 00 PM	02 50 PM	03 40 PM
End Time	09 50 AM	10 40 AM	11 30 AM	12 20 AM	02 00 PM	02 50 PM	03 40 PM	04 30 PM
Monday	NT (SK)	PPC (PN)	IAR (NSK)	IAR (NSK)	FEM (BUR)(SR)	IM (TN)	SM (TN)	NSS
Tuesday	FEM (BUR)	IM (TN)	PPC (PN)	NT (SK)	IAR (NSK)	FES LAB (VKM)		
Wednesday	IAR (NSK)	FEM (BUR)		NT (SK)	IM (TN) (SR)	PPC (PN) (SR)	NT (SK)	PBA
Thursday	IM (TN)	FEM (BUR)	NT (SK)	PPC (PN)	IAR (NSK) (SR)	FES LAB (VKM)		
Friday	IAR (NSK)	PPC (PN)	FEM (BUR)	Mentoring (KRP)	NT (SK) (SR)	PPC (PN)	IM (TN)	LIBRARY
Saturday	Project / Internship (BUR)				Project / Internship (BUR)			

Sl. No.	Code	Course Title	Cred	Faculty
1		Industrial Management	3	Mr T Narayana (TN)
2		Finite Element Methods	3	Mrs B Usha Rani (BUR)
3		Production Planning & Control	3	Mr P.Naveen (PN)
4		Industrial Automation and Robotics	3	Mr.N Suneel Kumar (NSK)
5		Nano Technology	3	Mr. T. Krishna Kumar
6		Finite Element Simulation Lab	3	Mr.CH V.V.Krishna Murthi (VKM)
7		Project / Internship	-	Mr. B.Usha Rani (BUR)
8		Self Reflection (SR)	-	
9		Professional Body Activity	-	Mr K.Ram Prasad (KRP)

Timetable Coordinator

Head of the Department  
Head of the Department  
Mechanical Engineering  
N.S. Raju Institute of Technology



Nadimpalli Satyanarayana Raju Institute of Technology (NSRIT)  
Visakhapatnam 531 173

Department  
Year/Semester  
Chief Mentor

Mechanical Engg  
V / VII  
Mr. T. Krishna Kumar

Academic Year  
Class

2022 - 2023  
'A'

w.e | 25-07-2022 onwards

Timing	Period								
	1	2	3	4	5	6	7	8	
Start Time	09 00 AM	09 50 AM	10:40 AM	11 30 AM	01 10 PM	02 00 PM	02 50 PM	03:40 PM	
End Time	09 50 AM	10:40 AM	11.30 AM	12.20 AM	02 00 PM	02:50 PM	03 40 PM	04.30 PM	
Monday	20ME503 (VKM)	20ME501 (RRR)	20ME502 (TKM)	20ME002 (NP)	Lunch Break (50 Minutes)	20ME001 (SK)	20ME506 / 20ME507 (RRR) / (NSK)		
Tuesday	20ME501 (RRR)	20ME502 (TKM)	20ME503 (VKM)	20ME002 (NP)		20ME001 (SK)	TPW (RRR)	LIBRARY	
Wednesday	20ME002 (NP)	20ME503 (VKM)	20ME501 (RRR)	20ME502 (TKM)		20ME001 (SK)	QA	SS	
Thursday	20ME002 (NP)	20ME502 (TKM)	20ME501 (RRR)	20ME503 (VKM)		20ME001 (SK)	20MCX03 (KMS)	20ME501 (RRR)(SR)	QA
Friday	20ME502 (TKM)	20ME002 (NP)	20ME503 (VKM)	20ME501 (RRR)		20MCX03 (KMS)	20ME506 / 20ME507 (RRR) / (NSK)		
Saturday	Skill Oriented Course / MOOCS (TKK) / (RRR)					SKILL Oriented Course / Internship Review (TKK) / (RRR)			

Sl. No.	Code	Course Title	Credit	Faculty
1	20ME501	Dynamics of Machinery	3	Dr.Raghu Ram Reddy (RRR)
2	20ME502	Design of Machine Elements -I	3	Mr.T Krishna Kumar (TKK)
3	20ME503	Metal Cutting and Machine Tools	3	Mr.CH.V.V Krishna Murthi (VKM)
4	20ME002	Unconventional Machining Process	3	Dr.N.Pallavi (NP)
5	20ME001	Nano -Technology	3	Mr.Surya Kanth (SK)
6	20MCX03	Intellectual Property rights and Patents	-	Mr.K.Madhan Sekhar (KMS)
7	20ME506	Dynamics of Machinery Lab	1.5	Dr.Raghu Ram Reddy (RRR) / Mr.K.Abhinash (KA)
8	20ME507	Metal Cutting and Machine Tools Lab	1.5	Mr.N.Suneeel Kumar (NSK) / Dr.N.Pallavi (NP)
9	TPW	Technical Paper Writing	-	
10	SOC/MOOCS	Skill.Oriented.Course/Internship /MOOCS	-	Mr.T.Krishna Kumar (TKK) / Dr.Raghu Ram Reddy (RRR)
11	QA	Quantitative & Aptitude	-	Mr.Rama Krishna
12	SS	Soft Skills	-	Mr.A.V.N.S.Sharma

Timetable Coordinator

Head of the Department

Form No.: 2021, AC 19, 00, 01 Nadimpalli Satyanarayana Raju Institute of Technology

AC 19

Head of the Department  
Mechanical Engineering

Nadimpalli Satyanarayana Raju Institute of Technology (NSRIT)  
Visakhapatnam 531 173

Department  
Year/Semester  
Chief Mentor

Mechanical Engg  
IV / VII  
Mr. B Usha Rani

Academic Year  
Class

2022 - 2023  
'A'

w.e.f. 04.07.2022 onwards

Timing	Period								
	1	2	3	4	Lunch Break (50 Minutes)	5	6	7	8
Start Time	09:00 AM	09:50 AM	10:40 AM	11:30 AM			01:10 PM	02:00 PM	02:50 PM
End Time	09:50 AM	10:40 AM	11:30 AM	12:20 AM		02:00 PM	02:50 PM	03:40 PM	04:30 PM
Monday	IM (AMS)	FEM (BUR)	FEM (BUR)	NT (SK)		PPC (KRP) (SR)	FES LAB (SK)		
Tuesday	IAR (NSK)	FEM (BUR)	NT (SK)	PPC (KRP)		IM (AMS)	IAR (NSK) (SR)	NT (SK)	NSS
Wednesday	PPC (KRP)	PPC (KRP)	NT (SK) (SR)	FEM (BUR)		IAR (NSK)	IM (AMS)	Mentoring (NSK)	LIBRARY
Thursday	IAR (NSK)	IM (AMS)	FEM (BUR)	PPC (KRP)		IM (AMS) (SR)	IAR (NSK)	NT (SK)	PBA
Friday	NT (SK)	FEM (BUR) (SR)	PPC (KRP)	IAR (NSK)		IM (AMS)	FES LAB (SK)		
Saturday	Project / Internship (BUR)					Project / Internship (BUR)			

Sl. No.	Code	Course Title	Credit	Faculty
1		Industrial Management	3	Mr.K.Madhan Sekhar (AMS)
2		Finite Element Methods	3	Mrs.B.Usha Rani (BUR)
3		Production Planning & Control	3	Mr.K.Ram Prasad (KRP)
4		Industrial Automation and Robotics	3	Mr.N.Suneel Kumar(NSK)
5		Nano Technology	3	Mr.Surya Kanth (SK)
6		Finite Element Simulation Lab	3	Mr.Surya Kanth (SK)
7		Project / Internship	-	Mr.B.Usha Rani (BUR)
8		Self Reflection (SR)		
9		Professional Body Activity		Mr.K.Ram Prasad (KRP)

Timetable Coordinator

Head of the Department

Head of the Department

Mechanical Engineering

Nadimpalli Satyanarayana Raju Institute of Technology

Visakhapatnam - 531 173

AD 16

Form No. - 2021, AC 19, 00: 01 Nadimpalli Satyanarayana Raju Institute of Technology

**Department of Mechanical Engineering**  
**Subject Preference Sheet for ODD SEM 22-23A.Y**

No	Name of the Faculty	Designation	Specialization	Experience in	Subject Preference			Lab Preference		Abated by HOD		Additional Hr	Total Work load	Additional Responsibilities
					IV	III	II	Preference-1	Preference-2	Course	Lab			
1	Dr. P. N. E. Naveen	Assoc Prof	CAD/CAM	13 Years	Production Planning & Renewable Energy Sources	Unconventional Machining	Manufacturing Processes			PPC-IV B	T-P		9	Head of the Department, CAE Coordinator, Institute PIC, Coordinator
2	Dr. K. Raghuram Reddy	Professor	CAD/CAM	22 Years	Production Planning & Control	Design of Machine Elements I	Material Science and Metallurgy	Material Science and Metallurgy Lab	Dynamics of Machinery Lab	PPC-IV A C-2	DOM LAB - II (6) Technical Paper Writing - II (2)		14	Dept PPC Coordinator, Member Committee Member, IC Coordinator
	Mr. KONA Ram Prasad	Asst Prof	MACHINE DESIGN	10.5 years	Industrial Automation and Robotics	Metal Cutting and Machine Tools	Manufacturing Processes	Manufacturing Processes Lab	Metal Cutting and Machine Tools Lab	PPC-IV A C-2	MMS LAB - II (2P)	MENTORING (1) IV B Class Teacher	19	Eventual Coordinator
	Mr. N. Suresh Kumar	Asst Prof	CAD/CAM	13 years	Finite Element Methods	Unconventional Machining Processes	Material Science and Metallurgy	Finite Element Simulation Lab	Dynamics of Machinery Lab	ME-IV A B (1P)	MCMT LAB - II (1) FES LAB - IV A (2P)	MENTORING (1)	24	Dept Autonomous Coordinator, Mentoring & CPM Coordinator
	Mr. C. V. S. S. R. K. Murthy	Asst Prof	CAD/CAM	13 Years	Power Plant Engineering	Metal Cutting and Machine Tools	Manufacturing Processes	Manufacturing Processes Lab	Metal Cutting and Machine Tools Lab	MOS-IV MCMT - II	FES LAB - IV A LAB - IV B (2P)	FES B Class Teacher	24	NBA Coordinator, TQM Coordinator
	Mr. T. T. V. S. R. Krishna Kumar	Asst Prof	CAAD	3.8 yr	Power Plant Engineering	Metal Cutting and Machine Tools	Manufacturing Processes	Manufacturing Processes Lab	Metal Cutting and Machine Tools Lab	ME-IV A B (1P) ME-IV B (1P)	FE - DB C&M LAB - II (2P)	MENTORING (1) III Class Teacher	24	Dept Library Coordinator, C&M Coordinator, Member Institute Student Activity Coordinator
	Smt. B. Usha Rani	Asst Prof	THERMAL	11 Years	Power Plant Engineering	Women and Society	Manufacturing Processes	Material Science and Metallurgy Lab	Dynamics of Machinery Lab	ME-IV A B (1P)	MOS LAB - II Project - IV B	IV B Class Teacher	24	Department Coordinator, IC, Tech Coordinator, Women and Society Institute Student Activity Coordinator
	Mr. K. Abhinav	Asst Prof	THERMAL	3.8 YR	Power Plant Engineering	Women and Society	Thermodynamics	Manufacturing Processes Lab	Metal Cutting and Machine Tools Lab	TO-IV - B (1P)	DOM LAB - II (2P) MOS LAB - II (2P)		24	Eventual Coordinator

**SRIT NADIMPALLI SATYANARAYANA RAJU INSTITUTE OF TECHNOLOGY AUTONOMOUS**

Approved by AICTE, New Delhi. II Affiliated to JNTUK, Kakinada. II An ISO 9001:2015 & ISO 45001 Certified Institution  
 Recognised under Section 2(f) & 12B of the UGC Act, 1956. III Accredited by NAAC with 'A' Grade (3.10/4.00)

ESTD 2006

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Approved by AICTE, New Delhi. II Affiliated to JNTUK, Kakinada. II An ISO 9001:2015 & ISO 45001 Certified Institution  
 Recognised under Section 2(f) & 12B of the UGC Act, 1956. III Accredited by NAAC with 'A' Grade (3.10/4.00)

SRIT www.srit.edu.in email: office@srit.edu.in

**Department of Mechanical Engineering**  
**Subject Preference Sheet for ODD SEM 22-23A.Y**

Name of the Faculty	Designation	Specialization	Experience in	Subject Preference			Lab Preference		Allotted by HOD		Additional Hr	Total Work load	Additional Responsibility
				IV	III	II	Preferenc e-1	Preferen ce-2	Course	Lab			
Dr.P.N.E.Naveen	Assoc Prof	CAD/CAM	13 Years	Production Planning &	Unconventional Machining	Manufacturing			PPC-IV B	TP-2			Head of the Department, Coordinator, Institute PRC Coor
Dr. K.Raghu Ram Reddy	Professor	CAD/CAM	22 Years	Renewable Energy Sources	DOM	Material Science and Metallurgy			DOM -III	DOM LAB - III	MENTORING (1)	13	Dept PRC Coordinator, Nu Committee Member, IL Coord
Dr. V.V.Ravi Kumar	Assoc Prof	METALLURGY	10 Years						Research Activity		MENTORING (1)		Dept Research Coordinator
Mr.V.V.R.Murthy	Assoc Prof	MARINE	23 Years	Renewable Energy Sources	Metal Cutting and Machine Tools	Manufacturing Processes	Manufacturing Processes Lab	Metal Cutting and Machine Tools Lab	MGMT -III		MENTORING (1)		Student Fee Collection
Mr. KONA Ram Prasad	Asst Prof	MACHINE DESIGN	10.5 years	Production Planning & Control	Design of Machine Elements	Material Science and Metallurgy	Material Science and Metallurgy Lab	Dynamics of Machinery Lab	PPC -IV A	MMS LAB - II (2P)	MENTORING (1)	13	Exam Cell Coordinator, IQAC In-charge, MMS LAB INCHARGE
Mr. N.Suneel Kumar	Asst Prof	CAD/CAM	13 years	Industrial Automation and Robotics	Metal Cutting and Machine Tools	Manufacturing Processes	Manufacturing Processes Lab	Metal Cutting and Machine Tools Lab	IAR -IC A & B	MGMT LAB - II	MENTORING (1)	19	Dept Autonomous Coordination, Mentoring & CEMS Coordinator
Mr. P.Prem Kumar	Asst Prof	THERMAL	7 Years	Renewable Energy Sources	Unconventional Machining Processes	Material Science and Metallurgy	Finite Element Simulation Lab	Material Science and Metallurgy Lab	NT -II	FES LAB - IV B FES LAB - IV A(2P)		18	Admission Coordinator, NT LI INCHARGE

Dr. V. S. S. R. K. Murthy	Asst Prof	CAD/CAM	13 Years	Finite Element Methods	Unconventional Machining Processes	Material Science and Metallurgy	Finite Element Simulation Lab	Dynamics of Machinery Lab	MOS -II	FES LAB - IV A FES LAB - IV B (2P)		18	MBA Coordinator, T&P C ARC Coordinator, DPRC B CAM LAB INCHARGE
Dr. T. V. S. R. Krishna Kumar	Asst Prof	CAAD	3.6 yr	Power Plant Engineering	Metal Cutting and Machine Tools	Manufacturing Processes	Manufacturing Processes Lab	Metal Cutting and Machine Tools Lab	DMM I-III MP, II	CAM LAB - II	MENTORING (1)	18	Dept Library Coordinator, C Coordinator, Website Incharge Workshop Lab INCHARGE
Smt. B. Usha Rani	Asst Prof	THERMAL	11 Years	PPE	Women and Society	Manufacturing Processes	Material Science and Metallurgy Lab	Dynamics of Machinery Lab	PEM -IV A & B	MOS LAB - II	MENTORING (1)	18	Timetable Coordinator, IET Coordinator, Women Cell Incharge, Institute Student Aff Coordinator, TE LAB INCHARGE
Mr. K. Abhinash	Asst Prof	THERMAL	3.8 YR	Power Plant Engineering	Women and Society	Thermodynamics	Manufacturing Processes Lab	Metal Cutting and Machine Tools Lab	TD -II	DOM LAB - II (2P) MOS LAB - II (2P)	MENTORING (1)	18	Excell Coordinator INCHARGE
A. Sai	Asst Prof	THERMAL	2 Years	Power Plant Engineering	Introduction to	Thermodynamics			MMS-II UCMP -III	MCMT LAB III (2P)	MENTORING (1)	24	MCMT LAB INCHARGE

**Non-Teaching Work Load**

Name of the Techn	Workload
A.V.S.S.Raju	12
L.Ramesh	18
Kishore Kumar	18
P.Rambabu	18
Ram Venkatesh	18
P.Suresh	18

192  
TIMETABLE INCHARGE

20/5/2022  
HEAD OF THE DEPARTMENT  
Mechanical Engineering  
N.S. Raju Institute of Technology  
(Ward No. 10, 11, 12)

**Internal Quality Assurance Cell (IQAC)  
Competency Based Course Allocation**

**Preamble:** This form is intended to facilitate the Head of the Department to allocate the courses based on the competency on the courses being requested by the respective course instructor in each and every semester before the commencement of the semester. The HOD shall convene a meeting with all members of faculty in coordination with the time-table coordinator and allocate the courses based on the competency. Once the course is being allocated, the respective course instructor shall start preparing the course file and prepare the course plan in line with the course deliverables.

Department: **MECHANICAL**

Academic Year:2022-2023

Semester: IV,VI,VIII

No.	Faculty	Specialization	No. of Courses Allotted			Courses Allotted & Mapping				HOD's Remark on Competency	
			IV	VI	VIII	Code	UG / PG	Already Handled		Y   N	Competency
								No. of Times	Avg. Pass %		
1	Dr. P.N.E.NAVEEN	CAD/CAM			1	TQM	UG	05	-	Y	
2	Mr. N.SUNEEL KUMAR	CAD/CAM		1	1(2)	20ME011 Robotic	UG	13 13	90.20 88.72	Y	
3	Mr. KONA RAM PRASAD	MACHINE DESIGN		1	1	20ME602 TQM	UG	10 06	81.32 -	Y	
4	Mr.Ch V.V.S.S.R.K.Murthy	CAD/CAM	1	1		20ME404 20ME603	UG	10 12	71.23 75	Y	
5	Mrs. B.USHA RANI	THERMAL	1			20ME405	UG	08	89	Y	
6	Mr. T.T.V.S.R.KRISHNA KUMAR	CADD		1	1(2)	20MEO02 PDD	UG	04 -	89 -	Y	

No	Faculty	Specialization	No. of Courses Allotted		Courses Allotted & Mapping				HOD's Remark on Competency		
7	Mr. K. ABHINASH	THERMAL	1		1(2)	NDE 20MCX04	UG	NA	85.66	Y	
8	Mr. G. Siva Sai Ram	THERMAL	1	1		20ME601 20ME403	UG	03	71.23 95	Y	

**Note:** The HOD shall indicate the competency in the above table mentioning the following numbers while justifying the course allotment. 1. Technically strong in that particular course based on his/her observation. 2. Previous track record. 3. Students' feedback in earlier semesters. 4. Use of ICT tools and other teaching aids. 5. Contemporary inputs with practical insights.

Signature of the HOD

Head of the Department  
Mechanical Engineering  
NSRIT  
Vidyanagar, Nellore - 524 102

Department of Mechanical Engineering  
 Subject Preference Sheet for ODD SEM 22-23A.Y

Name of the Faculty	Designation	Specialization	Experience In	Subject Preference			Lab Preference		Allotted by HOD		Additional Hr	Total Work load	Additional Responsibility
				IV	III	II	Preference-1	Preference-2	Course	Lab			
Dr. P.N.E.Naveen	Assoc Prof	CAD/CAM	13 Years	Production Planning & Control	Unconventional Machining	Manufacturing			PPC-IV B			6	Head of the Department, Coordinator, Institute PRC Co
Dr. K.Raghu Ram Reddy	Professor	CAD/CAM	22 Years	Renewable Energy Sources	DOM	Material Science and Metallurgy			DOM -III	DOM LAB - III	MENTORING (1)	13	Nuclear Committee Member, Coordinator, Mahatma Lab
Mr. KONA Ram Dasad	Asst Prof	MACHINE DESIGN	10.5 years	Production Planning & Control	Design of Machine Elements I	Material Science and Metallurgy	Material Science and Metallurgy Lab	Dynamics of Machinery Lab	PPC-IV A CAM-II	MMS LAB - II (2P)	MENTORING (1)	13	Examcell Coordinator, MB INCHARGE
Mr. N.Suneel Kumar	Asst Prof	CAD/CAM	13 years	Industrial Automation and Robotics	Metal Cutting and Machine Tools	Manufacturing Processes	Manufacturing Processes Lab	Metal Cutting and Machine Tools Lab	IAR-IV A & B	MCMT LAB III	MENTORING (1)	19	Dept Autonomous Coord, Mentoring & CEMS Coord
Mr. CH.V.V.S.S.R.K.Murthy	Asst Prof	CAD/CAM	13 Years	Finite Element Methods	Unconventional Machining Processes	Material Science and Metallurgy	Finite Element Simulation Lab	Dynamics of Machinery Lab	MCMT-III MOS-III	FES LAB - IV A FES LAB - IV B (2P)	MENTORING (1)	19	NBA Coordinator, TEP Coord, ARC Coordinator, DPRC Member, ICAM LAB Incharge
Mr. T.V.S.R.Krishna Kumar	Asst Prof	CAAD	3.6 yr	Power Plant Engineering	Metal Cutting and Machine Tools	Manufacturing Processes	Manufacturing Processes Lab	Metal Cutting and Machine Tools Lab	DMM I-III MT-IV A & B	FES LAB - IV A	MENTORING (1)	24	Dept Library Coordinator, Coordinator, Website Incharge, Workshop Lab INCHARGE
Dr. B.Usha Rani	Asst Prof	THERMAL	11 Years	PPE	Women and Society	Manufacturing Process	Material Science and Metallurgy Lab	Dynamics of Machinery Lab	FEM-IV A & B	MOS LAB - II MP LAB -II (2P)	MENTORING (1)	24	Timetable Coordinator, Member, Women's Member, Institute Student Coordinator, TE LAB INCH, Dept PRC Coordinator



Mr. K. Abhinash	Asst Prof	THERMAL	3.8 YR	Power Plant Engineering	Women and Soci	ermodynam	Manufacturi ng Processes Lab	Metal Cutting and Machine Tools Lab	TD -II III	NT CI-II	DOM LAB - III (2P) MOS LAB - II (2P)	MENTORIN G (1)	24	Examcell Coordinator INCHAR
A.Sai	Asst Prof	THERMAL	2 Years	Power Plant Engineering	Introduction to Thermodynamics				MMS-II		MMS LAB - II	MENTORIN G (1)	12	MCMT LAB IN
Dr.N.Pallavi	Asst.Prof	Manufacturing		PPE	UCMP	MP	MCMT LAB	MP LAB	UCMP -III MP -II		MP LAB-II MCMT- III(2P)	Mentoring II	24	PT LAB INCHARGE

**Non-Teaching Work Load**

Name of the Techn	Workload
A.V.S.S.Raju	12
L.Ramesh	18
.Kishore Kuma	12
P.Rambabu	12
Ram Venkates	18
P.Suresh	32

*[Signature]*  
TIMETABLE INCHARGE

*[Signature]*  
HEAD OF THE DEPARTMENT  
Head of the Department  
Mechanical Engineering  
N.S. Raju Institute of Technology Ltd  
Vivekharasnam 517173

DEPARTMENT OF MECHANICAL ENGINEERING

FACULTY INDIVIDUAL WORKLOAD FOR ODD SEMESTER- A.Y. 2022-2023

NAME: Mr. T.T.V.S.R. Krishna Kumar				Work Load: 22				
Time	9:00-09:50	9:50-10:40	10:50-11:40	11:40-12:30	1:10-2:00	2:00-2:50	3:00-3:50	3:50-4:30
DAY	1	2	3	4	5	6	7	8
MON	NT-IVB		DMMI	NT-IV A	IV -A FES LAB			
TUE		DMMI	NT-IV A	NT-IV B				
WED	DMMI		NT-IV A	NT-IV B			NT-IV B	
THU		DMMI	NT-IV B				NT-IV A	
FRI	NT-IV A	DMMI			NT-IV B	IV -A FES LAB		
SAT	SKILLORIENTED COURSE				SKILL ORIENTED COURSE			

NAME: Mr. K. Abhinav				Work Load: 25				
Time	9:00-09:50	9:50-10:40	10:50-11:40	11:40-12:30	1:10-2:00	2:00-2:50	3:00-3:50	3:50-4:30
DAY	1	2	3	4	5	6	7	8
MON	TD		DTD		NT	TOM LAB (2P)		CI
TUE		TD		DTD	NT	MOS LAB (2P)		
WED		DTD		TD	NT			
THU				TD	NT			
FRI		TD		DTD		MOS LAB (2P)	CI	MOS LAB (2P)
SAT	DTD							

NAME: Mr. D. U. SHARANI				Work Load: 18				
Time	9:00-09:50	9:50-10:40	10:50-11:40	11:40-12:30	1:10-2:00	2:00-2:50	3:00-3:50	3:50-4:30
DAY	1	2	3	4	5	6	7	8
MON		FEM	FEM		FEM			
TUE	FEM	FEM				MOS LAB		
WED		FEM	FEM	FEM				
THU			FEM					
FRI		FEM				MOS LAB		
SAT	PROJECT				PROJECT			

NAME: RAMPRASAD				Work Load: 11				
Time	9:00-09:50	9:50-10:40	10:50-11:40	11:40-12:30	1:10-2:00	2:00-2:50	3:00-3:50	3:50-4:30
DAY	1	2	3	4	5	6	7	8
MON			CAD-II		PPC			
TUE				PPC				
WED	PPC	PPC						
THU				PPC				
FRI			PPC	MENTORING				
SAT								

NAME: Mr. S. S. S. S. S.				Work Load: 25				
Time	9:00-09:50	9:50-10:40	10:50-11:40	11:40-12:30	1:10-2:00	2:00-2:50	3:00-3:50	3:50-4:30
DAY	1	2	3	4	5	6	7	8
MON		RAC				MSM		
TUE		RAC		MSM		MSM LAB - II		
WED				RAC	MSM	MSM LAB - II		
THU	MSM	RAC				MSM LAB - II		
FRI		RAC		MSM		MSM LAB - II		
SAT								

HEAD OF THE DEPARTMENT

*(Handwritten Signature)*



Nadimpalli Satyanarayana Raju Institute of Technology (NSRIT)  
Visakhapatnam 531 173

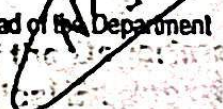
Department : Mechanical Engg  
Year/Semester : II/IV  
Chief Mentor : Mrs.B.Usha Rani  
Academic Year : 2022 - 2023  
Class : 'A'

w. e. f.: 18-01-2023 onwards

Timing	Period						
	1	2	3	4	5	6	7
Start Time	09 00 AM	09 50 AM	10 40 AM	11 30 AM	01 10 PM	02 00 PM	02 50 PM
End Time	09 50 AM	10 40 AM	11 30 AM	12 20 AM	02 00 PM	02 50 PM	03 40 PM
Monday	20ME403 (GS)	20HSX03 (MN)	20CS403 (KHD)	20ME405 (BUR)	20CS407 (KHD)		
Tuesday	20ME405 (BUR)	20ME403 (GS)		20ME404 (VKM)	20ME406 /20ME407 (KA)/(BUR)		
Wednesday	20ME404 (VKM)	20CS403 (KHD)	20ME405 (BUR)		20ME406 /20ME407 (KA)/(BUR)		
Thursday	20CS403 (KHD)	20ME403 (GS)	20ME404 (VKM)		QA (RK)	20HSX03 (MN)	
Friday	QA (RK)	20MES02 (TKK)			20ME403 (GS)	20CS403 (KHD)	20ME404 (VKM)
Saturday	INDUSTRIAL ENGAGEMENT				INDUSTRIAL ENGAGEMENT		

No.	Code	Course Title	Credit	Faculty
1	20HSX03	Managerial Economics and Financial Analysis	2	Mr.M.Narayana ( MN)
2	20CS403	Python Programming	3	Mrs.Khadarunnisa (KHD)
3	20ME403	Kinematics of Machinery	3	Mr.G.Siva Sai Ram (GS)
4	20ME404	Fluid Mechanics and Hydraulic Machines	3	Mr.CH.V.V.Krishna Murthi (VKM)
5	20ME405	IC Engines & Gas turbines	3	Mr.B.Usha Rani (BUR)
6	20ME406	Fluid Mechanics and Hydraulic Machines Lab	1.5	Mr.K.Abhinash (KA)
7	20ME407	Thermal Engineering Lab	1.5	Mr.B.Usha Rani (BUR)
8	20CS407	Python Programming Lab	1.5	Mrs.Khadarunnisa (KHD)
9	20MES02	Computer Numerical Control Programming	2	Mr.T.T.Krishna Kumar (TKK)
10	QA	Quantitative and Aptitude (QA)	-	Mr.Rama Krishna (RK)
11	HV	Industrial Engagement	-	Mr.N.Suneel Kumar (NSK)

  
Timetable Coordinator

  
Head of the Department  
Head of the Department  
Mechanical Engg  
Nadimpalli Satyanarayana Raju Institute of Technology

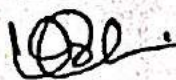
**Nadimpalli Satyanarayana Raju Institute of Technology (NSRIT)**  
Visakhapatnam 531 173

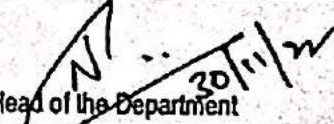
Department : Mechanical Engg      Academic Year : 2022 - 2023  
Year/Semester : IV / VIII                      Class : 'A'  
Chief Mentor : Mr. K.Ram Prasad

w. e. f.: 05:12.2022 onwards

Timing	Period							
	1	2	3	4	Lunch Break (50 Minutes)	5	6	7
Start Time	09:00 AM	09:50 AM	10:40 AM	11:30 AM			01:10 PM	02:00 PM
End Time	09:50 AM	10:40 AM	11:30 AM	12:20 AM		02:00 PM	02:50 PM	03:40 PM
Monday	TQM (KRP)	ROB (NSK)	PDD (TKK)			NDE (KA)	TQM (KRP)	ROB (NSK)
Tuesday	ROB (NSK)	TQM (KRP)	PDD (TKK)	NDE (KA)		TQM (KRP)	NDE (KA)	ROB (NSK)
Wednesday	PDD (TKK)	ROB (NSK)	NDE (KA)	NDE (KA)		TQM (KRP)	PDD (TKK)	Mentoring (KRP)
Thursday	Remedial Class					Remedial Class		
Friday	Project Phase -II (BUR)					Certification Course (KRP)		
Saturday	Project Phase -II (BUR)					Project Phase -II (BUR)		

Sl. No.	Code	Course Title	Credit	Faculty
1	PDD	Product design and development	3	Mr.T.Krishna Kumar (TKK)
2	NDE	Non Destructive Evaluation	3	Mr.K.Abinash (KA)
3	ROB	Robotics	3	Mr.N.Suneel Kumar(NSK)
4	TQM	Total Quality Management	3	Mr.K.Ram Prasad (KRP)
5		Certification Course	3	Mr.K.Ram Prasad (KRP)
6		Project Phase II	-	Mr.B.Usha Rani (BUR)

  
Timetable Coordinator

  
Head of the Department

Nadrapati Satyanarayana Raju Institute of Technology (NSRIT)  
Visakhapatnam 531 173

Department : Mechanical Engg  
Year/Semester : IV / VII  
Chief Mentor : Mr.K.Abinash  
Academic Year : 2022 - 2023  
Class : 'B'

w e. l. 05.12.2022 onwards

Timing	Period							
	1	2	3	4	5	6	7	
Start Time	09:00 AM	09:50 AM	10:40 AM	11:30 AM	01:10 PM	02:00 PM	02:50 PM	
End Time	09:50 AM	10:40 AM	11:30 AM	12:20 AM	02:00 PM	02:50 PM	03:40 PM	
Monday	PDD (TKK)	NDE (KA)	TQM (PNE)		Lunch Break (50 Minutes)	ROB (NSK)	PDD (TKK)	NDE (KA)
Tuesday	NDE (KA)	ROB (NSK)	TQM (PNE)	PDD (TKK)		NDE (KA)	ROB (NSK)	PDD (TKK)
Wednesday	ROB (NSK)	TQM (PNE)	PDD (TKK)	ROB (NSK)		NDE (KA)	TQM (PNE)	Mentoring (KA)
Thursday	Remedial Class					Remedial Class		
Friday	Project Phase -II (BUR)					Certification Course (KA)		
Saturday	Project Phase -II (BUR)					Project Phase -II (BUR)		
Sunday	Project Phase -II (BUR)					Project Phase -II (BUR)		

Sl. No.	Code	Course Title	Credit	Faculty
1	PDD	Product design and development	3	Mr.T.Krishna Kumar (TKK)
2	NDE	Non Destructive Evaluation	3	Mr.K.Abinash (KA)
3	ROB	Robotics	3	Mr.N.Suneel Kumar(NSK)
4	TQM	Total Quality Management	3	Dr.P.N.E.Naveen (PNE)
5		Certification Course	3	Mr.K.Abinash (KA)
6		Project Phase II	-	Mr.B.Usha Rani (BUR)

  
Timetable Coordinator

  
Head of the Department

**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**

Workload statement for Odd Semester 2022 - 2023

S.NO	Name of the Faculty	Subject/Labs	Year & Branch	Theory	Lab	Total work load	Responsibilities at the Department level	Responsibilities at the Institute level		
1	Dr. Rayudu Srinivasa Professor	Programming for Problem Solving Using C	II CSE-A & B	14		24	HOD			
		Programming for Problem Solving Using C Lab	II CSE-A & B		6					
		Technical Paper writing	III CSE-A		2					
		Technical Paper writing	III CSE-B		2					
2	Dr. R. Priya Vijayanthi Professor	Design and Analysis of Algorithms	II CSE-A	6		14	HOD (AIML)	NEA Coordinator		
		Design and Analysis of Algorithms	II CSE-B	6						
		Technical Paper writing	III CSM		2					
3	Dr. V. Sree Rama Murthy Professor	Programming Basics	II CSE-A	3		14	Autonomous coordinator for CSE-AIML	LMS Coordinator		
		Programming Basics	II CSE-B	3						
		Codethon	III CSE-A/CSE-B/CSM/CSD		4					
		Codethon	IV CSE-A/CSE-B		4					
4	Dr. B. Ravi Kiran Professor	OOP's through C++	II CSE-A	5		10				
		OOP's through C++	II CSE-B	5						
5	Dr. K. Madhavi Assoc. Professor	Theory of Computation	III CSM/CSD	5		16	HOD (Data Science)	Autonomous coordinator for CSE-DS	Coordinator- WEGC	
		Foundations of Data Science	II CSD	6						
		Technical Paper writing	III CSD		2					
		Foundations of Data Science Lab	II CSD (S)		3					
6	Dr. T. V. S. Sriram Assoc. Professor	DBMS	II CSE-A	6		18	Online Feedback Incharge	Online Feedback Incharge		
		DBMS	II CSE-B	6						
		DBMS Lab	II CSE-A (P)		3					
		DBMS Lab	II CSE-B (P)		3					
7	Mr. K. Shankar Assoc. Professor	Mobile Computing	IV CSE-A	6		20	NBA C4 coordinator	Alumni coordinator		
		Mobile Computing	IV CSE-B	6						
		Mobile Computing	III CSD	5						
		Computer Network Lab	III CSE-B		3					
8	Mrs. J. Santoshi Kumar Asst. Professor	C++ Lab	II CSE-A (P)		3	12	Women Empowerment member	Web Master		
		C++ Lab	II CSE-B (P)		3					
		Java Programming Lab	III CSE-A (S)		3					
		Java Programming Lab	III CSE-B (S)		3					
9	Mrs. P. Kavaya Asst. Professor	Computer Organization	II CSE-A	6		24	MIS Coordinator	NBA C2 Coordinator		
		Computer Organization	II CSE-B	6						
		Computer Organization	III CSM/CSD	6						
		C++ Lab	II CSE-A (S)		3					
		C++ Lab	II CSE-B (S)		3					

10	Mr. T. Rav Kumar Asst. Professor	Database Management Systems	III CSM/CSD	6	16	Project Coordinator		
		Database Management Systems Lab	III CSM/CSD			3	Class teacher II CSM/CSD	
		Application Development Lab	III CSM (P)			3		
		Project-I	IV-I CSE-A/B			4	Mentor & Mentee & Counseling	
11	Mr. Vishwanath Reddy Asst. professor	Java Programming	III-I CSE-A	6	21	Class Teacher III CSE-B	Member of Admission Committee	
		Java Programming	III-I CSE-B	6				
		Java Programming Lab	III-I CSE-A (P)			3		
		Java Programming Lab	III-I CSE-B (P)			3		
		UML & Design Patterns lab	IV-I CSE-B (T)			3	NBA C2 Coordinator	
12	Mr. A. Suraj Asst. Professor	UML & Design Patterns	IV-I CSE-A	6	24	Placements and Training Co-ordinator		
		UML & Design Patterns	IV-I CSE-B	6				
		OOP's through JAVA	IV EEE	6				
		UML & Design Patterns lab	IV-I CSE-A (P)			3		
		UML & Design Patterns Lab	IV-I CSE-B (P)			3		
13	Mrs. Khadarunnisa Asst. Professor	Cloud Computing	IV-I CSE-A	6	23	Time Table coordinator		
		Cloud Computing	IV-I CSE-B	6		NBA C9 Coordinator		
		Cloud Computing Essentials	III-I CSM	5				
		Foundations of Data Science Lab	II-I CSD (P)			3		
		C++ Lab	II-I CSM/CSD (S)			3	Mentor & Mentee & Counseling	
14	Mrs. M. Elhargani Asst. Professor	Machine Learning	IV-I CSE-A	6	22	Class Teacher IV CSE-B		
		Machine Learning	IV-I CSE-B	6				
		Machine learning for Engineers	All Branches (OE-1)	4				
		UML & Design Patterns lab	IV-I CSE-A (S)			3		
		UML & Design Patterns Lab	IV-I CSE-B (S)			3	Mentor & Mentee & Counseling	
15	Ms. P. Mounika Asst. Professor	Cryptography and Network Security	IV-I CSE-A	6	20	AC lab Incharge		
		Cryptography and Network Security	IV-I CSE-B	6		Class Teacher IV CSE-A		
		Remedial classes	IV-I CSE-A			4	1 Honors Subject for CSM/CSD	
		Remedial classes	IV-I CSE-B			4	Mentor & Mentee & Counseling	
16	Ms. P. Sanitha Asst. Professor	Big Data	III-I CSD	5	20	Internship Coordinator	Fashion Event club coordinator	
		Artificial Neural Networks	III-I CSM/CSD	6		III CSD Class Teacher		
		Artificial Neural Networks Lab	III-I CSM/CSD			3	Minutes of Meeting	
		Big Data Lab	III-I CSD			3		
		Design and Analysis of Algorithms Lab	III-I CSE-A (S)			3		
17	Ms. G. Hari Keerthana Asst. Professor	High Performance Computing	III-I CSM	5	22	Mentor & Mentee & Counseling		
		DC & CN	IV-I ECE-A	6		NSS Co-ordinator		
		DC & CN	IV-I ECE-B	6		Redcross coordinator		
		Computer Network Lab	III-I CSE-A (S)			3	class teacher for III CSM	
		NSS	III CSE-A/CSE-B/C/SM/CSD			2	Mentor & Mentee & Counseling	
18	Dr. P. Vishnu Mahesh Professor	Object Oriented Analysis and Design	III-I CSE-A	5	10			
		Object Oriented Analysis and Design	III-I CSE-B	5				
19	Mrs. A. Kamala Priya Asst. Professor	Machine Learning	III-I CSD	5	21	Department Library	Member of Library Committee	
		Introduction to DMS	All Branches (OE-1)	4				
		Machine Learning lab	III-I CSD (P)			3		
		DBMS Lab	II-I CSE-A (S)			3		
		DBMS Lab	II-I CSE-B (S)			3		
DBMS Lab	II-I CSM/CSD (S)		3	Mentor & Mentee & Counseling				



20	Mrs. S JayaPrada Asst.Professor	Datastructures and Algorithms	All Branches (CE-1)	4	19	1 Honor subject for CSE
		Object Oriented Programming through C++	II-I CSM/CSD	6		
		Object Oriented Programming through C++ Lab	II-I CSM/CSD (P)	3		
		Design and Analysis of Algorithms Lab	II-I CSE-A (P)	3		
		Design and Analysis of Algorithms Lab	II-I CSE-B (P)	3		
21	Mr. Shaik Jani Asst.Professor	Artificial Intelligence	III-I CSE-A	6	20	Placement coordinator 2
		Artificial Intelligence	III-I CSE-B	6		Exam cell coordinator
		Artificial Intelligence	III-I CSM	5		Class Teacher III CSE-A
		Artificial Intelligence Lab	III-I CSM (P)	3		Mentor & Mentee & Counseling
22	Ms. G Aparanjini Asst.Professor	Computer Network	III-I CSE-A	6	21	Slow Learners & Tutorials
		Computer Network	III-I CSE-B	6		
		Computer Network Lab	III-I CSE-A (P)	3		
		Computer Network Lab	III-I CSE-B (P)	3		
		Design and Analysis of Algorithms Lab	II-I CSE-B (S)	3		

Class Teachers	IV CSE A	Ms. P. Mounika
	IV CSE B	Mrs M. Bhargavi

III CSE A	Mr. Shaik Jani
III CSE B	Mr N.Vishwanath Reddy
III CSM	Ms.G. Hari Keerthana
III CSD	Ms.P.Sahithi

II CSE A	Mrs. J Santoshi Kumari
II CSE B	Mrs. P Kavya
II CSM/CSD	Mr T. Ravi Kumar

INCHARGE

*R. Reddy*

*[Signature]*  
HOD

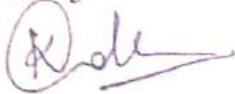
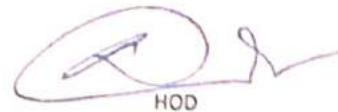
**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**  
Workload statement for even semester 2022 – 2023

S.NO	Name of the Faculty	Subject/ Labs	Year & Branch	Theory	Lab	Total work load	Responsibilities at the Department level	Responsibilities at the Institute level
1	Dr Rayadu Srinivas Professor	Operating Systems	II-II CSE-A & B	12		18	HOD	
		Operating Systems Lab	II-II CSE-A & B (P)		6			
2	Dr. V. Sree Rama Murthy Professor	Programming for problem solving using C	I- I CSD	7		14	Codethon Coordinator NAAC C3 Coordinator	
		Programming for problem solving using C Lab	I- I CSD (P)		3			
		Competitive Programming Essentials	II-II CSE- A&B	4				
3	Dr.T.V.S.Srnam Assoc. Professor	Data Ware Housing And Mining	II-II CSE-A & B	12		18	Online Feedback Incharge	Online Feedback Incharge
		Data Ware Housing And Mining Lab	II-II CSE-A & B (P)		6			
4	Mr K. Shankar Assoc. Professor	Theory Of Computation	II-II CSE-A & B	12		20	NAAC C5 Coordinator NBA C4 coordinator Disciplinary committee coordinator	Alumni coordinator
		Competitive Programming Essentials	II-II CSD/M		2			
		Modern Software Engineering Lab	III-II CSE-A & B (S)		6			
5	Mrs. Khadarunnisa Asst.Professor	Python programming	II-II Mech	6		25	Time Table coordinator NBA CT Coordinator Class Teacher II CSE-A NAAC C4 Coordinator Mentor & Mentee & Counseling	
		Python Programming Lab	II-II Civil ,Mech (P)		6			
		Python Programming Lab	II-II CSE-A (S), CSE-B (P)		6			
		Programming for problem solving using C Lab	I- I CSD (S)		3			
		Android App Development Lab	III-II CSE-A (P) & B (S)		4			
6	Mr. Shaik Jani Asst.Professor	Devops	IV-II CSE-A	6		17	Placement coordinator, NBA C4 Coordinator, NAAC C5 Coordinator Exam cell coordinator Class Teacher IV CSE-A ARC member Mentor & Mentee & Counseling	
		Devops	IV-II CSE-A	6				
		Cyber security	III-II CSM	5				
7	Mrs.M Bhargavi Asst.Professor	Fundamentals of Computer Science	I- I CSE A & B	10		22	Class Teacher IV CSE-B NBA C5 coordinator NAAC C2 Coordinator	
		Operating Systems Lab	II-II CSE-A & B(S)		6			
		Programming for problem solving using C Lab	I- I CSE A & B(S)		6			
		Cryptography And Network Security	III-II CSE-A & B	12			Mentor & Mentee & Counseling	
		Cryptography And Network Security	III-II CSD	6			AC lab Incharge Class Teacher III CSE-A	

8	Ms.P.Mounika Asst.Professor	Cryptography And Network Security Lab	III-II CSE-A &B (P)		6	24	NBA C6 coordinator, NAAC C1 Coordinator	
							Honors subject for CSM	
							Mentor & Mentee & Counseling	
9	Ms.P.Sahithi Asst.Professor	Data visualization	III-II CSD		6	20	Internship Coordinator	Fashion Event club coordinator
		Data visualization Lab	III-II CSD (P)		3		Class Teacher III CSD	
		Python Programming for Statistics Lab	II-II CSM (P)		3		Minutes of Meeting	
		Fundamentals of Deep Learning	III-II CSM (OE)		4		NBA C5 coordinator,NAAC C2 Coordinator	
		Android App Development Lab	III-II CSE-A (S) &B (P)		4		Autonomus coordinator	
							Mentor & Mentee & Counseling	
11	Mrs. S JayaPrada Asst.Professor	Python Programming	II-II CSE-A & B		12	22	1 Honor subject for CSE	
		Python Programming Lab	II-II CSE-A (P), CSE-B (S)		6		Class Teacher II CSE-B	
		Python Programming Lab(SOC)	II-II ECE-A &B (P)		4		NBA C3 Coordinator	
							NAAC C7 Coordinator	
							ARC member	
12	Mr. E. Siva Krishna Asst. Professor	Competitive Programming Essentials	II-II CSE-B		2	20		
		Cryptography And Network Security Lab	III-II CSE-A&B (S)		6			
		Web Technologies Lab	III-II CSE-A&B (S)		6			
		Project work	IV-II CSE-A & B		6			
13	Dr.P.Vishnu Mahesh Professor	Modern Software Engineering	III-II CSE-A &B		11	11		

Class Teachers	IV CSE A	Mr. Shaik Jani
	IV CSE B	Mrs M. Bhargavi
	III CSE A	Ms. P. Mounika
	III CSE B	Mrs. A. Kamal Priya
	II CSE A	Mrs. Khadarunnisa
	II CSE B	Mrs. S. Jaya Prada

Incharge

HOD

**Internal Quality Assurance Cell (IQAC)  
Competency Based Course Allocation**

**Preamble:** This form is intended to facilitate the Head of the Department to allocate the courses based on the competency on the courses being requested by the respective course instructor in each and every semester before the commencement of the semester. The HoD shall convene a meeting with all members of faculty in coordination with the time-table coordinator and allocate the courses based on the competency. Once the course is being allocated, the respective course instructor shall start preparing the course file and prepare the course plan in line with the course deliverables.

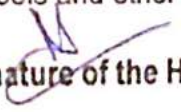
**Department:** Computer Science & Engineering(Data Science)

**Academic Year:**2022-2023

**Semester:**IV,VI

No.	Faculty	Specialization	No. of Courses Allotted			Courses Allotted & Mapping				HOD's Remark on Competency	
			II	III	IV	Code	UG   PG	Already Handled		Y   N	Competency
								No. of Times	Avg. Pass %		
1	Dr.K.Madhavi	Data Mining	1	1		20CS302, 20CS001	UG	NA		N	1,5
2	Mr A. Suraj Kumar	Computer Networks		2+2		20DS406, 20CS501, 20CS506,20CS004	UG	NA		N	1,5
3	A. Kamala Priya	Machine Learning		3+2		20AI603,20AI608, 20AIS04	UG	1(3 OVERALL)		N	1,5
4	Mrs.P.Kavya	CSE		2+1		20CS502, 20CS507, 20DSO02	UG	NA		N	1,5

**Note:** The HoD shall indicate the competency in the above table mentioning the following numbers while justifying the course allotment. 1. Technically strong in that particular course based on his/her observation. 2. Previous track record. 3. Students' feedback in earlier semesters. 4. Use of ICT tools and other teaching aids. 5. Contemporary inputs with practical insights.

  
Signature of the HoD

ESTD. 2008

**NSRIT**

**NS RAJU INSTITUTE OF TECHNOLOGY**

SONTYAM, PENDURTHI - ANANDAPURAM HIGHWAY, VISAKHAPATNAM - 531 173

## ACADEMIC RECORD BOOK

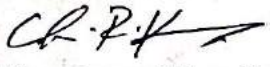
Academic Year : 2022-23

Year and Semester : II & II Course B. Tech Branch Mechanical

Subject : Fluid Mechanics & Hydraulic Machines

Name of Faculty : Mr. V. V. S. R. Krishna Murthy, ch

Designation : Assistant Professor Dept. Mechanical

  
Signature of Faculty



**NADIMPALLI SATYANARAYANA RAJU  
INSTITUTE OF TECHNOLOGY  
(AUTONOMOUS)**



(Approved by AICTE, New Delhi & Affiliated to JNTUK, Kalamida 1 An ISO 9001 ISO 14001 & ISO 45001 Certified Institute)  
Recognized under 2(f) of the UGC Act 1956 & Accredited by NAAC with 'A' Grade (3.18/4.00)  
BONTYAM, Penderthi - Anandapuram Highway, Vaidhyanatham - 531173, Ph: 0885024167, 8099464648, www.nsril.edu.in

**ACADEMIC CALENDAR  
B. TECH. (SECOND YEAR – AUTONOMOUS)  
(2021 ADMITTED BATCH)**

III SEMESTER			
	From	To	Weeks
First Spell of Instructions	22.08.2022	08.10.2022	7W
I Mid Examinations	10.10.2022	15.10.2022	1W
Second Spell of Instructions	17.10.2022	03.12.2022	7W
II Mid Examinations	05.12.2022	10.12.2022	1W
Preparation and Practical Examinations	12.12.2022	24.12.2022	1W
Semester End Examinations	26.12.2022	07.01.2023	2W
Commencement of IV Semester Class Work	16.01.2023		
IV SEMESTER			
Description	From	To	Weeks
First Spell of Instructions	16.01.2023	04.03.2023	7W
I Mid Examinations	06.03.2023	11.03.2023	1W
Second Spell of Instructions	13.03.2023	29.03.2023	7W
II Mid Examinations	01.05.2023	06.05.2023	1W
Preparation and Practical Examinations	08.05.2023	13.05.2023	1W
Semester End Examinations	15.05.2023	27.05.2023	2W
Summer Internship	29.05.2023	24.06.2023	4W
Commencement of V Semester Class Work	03.07.2023		

G. Kalpani 31/08/22  
Controller of Examinations

Principal 15.8.2022

ESTD. 2008

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### ACADEMIC RECORD BOOK

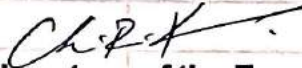
Unit Overhead	Periods		Date of		Remarks
	Required	Taken	Slit	Completion	
Academic Year	: <u>2022-23</u>				
Year and Semester	: <u>I &amp; II</u> Course <u>B.Tech</u> Branch <u>Mechanical</u>				
Subject	: <u>Fluid Mechanics &amp; Hydraulic Machines</u>				
Name of Faculty	: <u>Mr. V.V.S.S.R. Krishna Murthy Ch.</u>				
Designation	: <u>Assistant Professor</u> Dept. <u>Mechanical</u>				

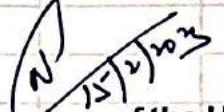
  
Signature of Faculty

# Semester Plan


## Mid wise Split-up of Syllabus

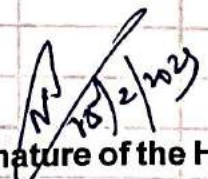
Mid - 1	Periods		Date of		Remarks
	Unit Covered	Required	Taken	Start	
Unit - I	09	13	20-1-23	14-2-23	As student is regularly repeated 3 times in unit course
Unit - II	09	10	15-2-23	4-3-23	
Unit - III	09	09	15-3-23	25-3-23	
Unit - IV	09	11	28-3-23	26/4/23	

  
Signature of the Faculty

  
Signature of the HOD

Mid - 2	Periods		Date of		Remarks
	Unit Covered	Required	Taken	Start	
Unit - V	09	08	27/4/23	6/5/23	
Unit -					
Unit -					
Unit -					

  
Signature of the Faculty

  
Signature of the HOD



Dept.: Civil Engg. | CSE | CSE (AI and ML) | CSE (DS) | ECE | EEE | Mechanical Engg. | MBA

Academic Year : 2022 - 2023					
Name/Dept	:	Mr. V.V.S.S.R.Krishna Murthy.Ch, AP/MECHANICAL	Year/Sem	:	II / II
Course Title	:	Fluid Mechanics and Hydraulic Machines	Hours Required	:	45
Course Code	:	20ME404	Hours Planned	:	45
Pos	:	PO1,PO2,PO3, PSO1	Pre-Requisite	Linear Algebra & Differential Equations , Partial Differential Equations & Vector Calculus, Engineering Physics	

## Course Outcomes:

1. Classify the properties of fluid and study of fluid in static condition (20ME404.1)
2. Interpret the dynamics of fluids and boundary layer conditions (20ME404.2)
3. Demonstrate natural and forced convection using dimensional analysis (20ME404.3)
4. Select the appropriate pump based on its working principle and operation (20ME404.4)
5. Identify the performance and construction of various types of flow in turbines(20ME404.5)

Sl. No.	Date	Period Reqd.	Topics to be Covered	COs	Actual Date of Completion	Mode of Teaching	Remark
Unit 1 Fluid Properties and Flow Characteristics Target Lecture Hours:09 Target Tutorial Hours: 03							
Text Books: T1. Modi P.N. and Seth, S.M, "Hydraulics and Fluid Mechanics", 22nd Edition, Standard Book House, New Delhi 2013 T2. Bansal.R.K, "Fluid Mechanics and Hydraulic Machinery", 6th Edition, Laxmi Publications, 2005							
01	18-01-2023	Hour #1	Properties of fluids- mass density, specific weight, specific volume, specific gravity, viscosity, compressibility	20ME404.1		PPT, Chalk and Talk	
02	19-01-2023	Hour #2	Vapour pressure, surface tension & capillarity	20ME404.1		PPT, Chalk and Talk	
03	19-01-2023	Hour #3	Measurement of pressures	20ME404.1		Chalk and Talk	
04	20-01-2023		Tutorial – 1				
05	24-01-2023	Hour #4	Flow characteristics, application of continuity equation	20ME404.1		Chalk and Talk	
06	25-01-2023, 27-01-2023	Hour #5	Energy Equation and Momentum Equation	20ME404.1		Chalk and Talk	
07	31-01-2023, 01-02-2023	Hour #7	Buoyancy and Floating -buoyancy centre of buoyancy	20ME404.1		Chalk and Talk	
08	02-02-2023		Tutorial – 2			Practice problems	
09	02-02-2023	Hour #9	Meta centre, Meta centric height, Condition of Equilibrium of floating and submerged bodies	20ME404.1			
10	03-02-2023		Tutorial – 3			Practice problems	

Unit II		Flow through Circular Conduits		Text Books:			
Target Lecture Hours: 09		T1. T1. Modi P.N. and Seth, S.M, "Hydraulics and Fluid Mechanics", 22nd Edition, Standard Book House, New Delhi 2013 T2. Bansal.R.K, "Fluid Mechanics and Hydraulic Machinery", 6 <sup>th</sup> Edition, Laxmi Publications, 2005					
Target Tutorial Hours: -03							
Sl. No.	Date	Period Reqd.	Topics to be Covered	COs	Actual Date of Completion	Mode of Teaching	Remark
01	07-02-2023	Hour #10	Types of Fluid motion -Rate of flow, Continuity equation	20ME404.2		PPT, Chalk and Talk	
02	08-02-2023	Hour #11	Velocity and acceleration, Potential function and Vortex flow	20ME404.2		Chalk and Talk	
03	09-02-2023	Hour #12	Equation of motion-Euler's equation of motion, Bernoulli's equation and applications	20ME404.2		PPT, Chalk and Talk	
04	09-02-2023	Hour #13	Concept of control volume, energy equation and momentum equation, Hydraulic and energy gradient	20ME404.2		PPT, Chalk and Talk	
05	10-02-2023		Tutorial - 4			Practice problems	
06	14-02-2023	Hour #14	Laminar flow through circular conduits and circular annuli Boundary layer concepts	20ME404.2		Guest lecture	
07	15-02-2023	Hour #15	Types of boundary layer thickness	20ME404.2		Chalk and Talk	
08	16-02-2023	Hour #16	Darcy Weisbach equation	20ME404.2		Practice problems	
09	16-02-2023		Tutorial - 5			PPT, Chalk and Talk	
10	17-02-2023	Hour #17	Friction factor-minor losses	20ME404.2		PPT, Chalk and Talk	
11	21-02-2023	Hour #18	Flow through pipes in series and parallel	20ME404.2		PPT, Chalk and Talk	
12	22-02-2023		Tutorial - 6			Practice problems	

Unit III		Dimensional Analysis					
Target Lecture Hours: 09		Text Books:					
Target Tutorial Hours: 3		T1. Modi P.N. and Seth, S.M., "Hydraulics and Fluid Mechanics", 22nd Edition, Standard Book House, New Delhi 2013 T2. Bansal, R.K., "Fluid Mechanics and Hydraulic Machinery", 6th Edition, Laxmi Publications, 2005					
Sl. No.	Date	Period Reqd.	Topics to be Covered	COs	Actual Date of Completion	Mode of Teaching	Remark
01	23-02-2023	Hour #19	Need for dimensional analysis	20ME404.3		PPT, Chalk and Talk	
02	23-02-2023	Hour #20	Methods of dimensional analysis	20ME404.3		PPT, Chalk and Talk	
03	24-02-2023		Tutorial – 7			Practice problems	
04	28-02-2023	Hour #22	Similitude, types of similitude	20ME404.3		Chalk and Talk	
05	01-03-2023, 02-03-2023	Hour #23	Dimensionless parameters	20ME404.3		Chalk and Talk	
06	03-03-2023		Tutorial – 8			Practice problems	
07	14-03-2023, 15-03-2023	Hour #25	Application of dimensionless parameters	20ME404.3		PPT, Chalk and Talk	
08	16-03-2023	Hour #27	Model analysis	20ME404.3		Chalk and Talk	
09	16-03-2023		Tutorial – 9			Practice problems	

Unit IV Pumps	Text Books:						
Target Lecture Hours: 09	T1. Modi P.N. and Seth, S.M, "Hydraulics and Fluid Mechanics", 2nd Edition, Standard Book House, New Delhi 2013						
Target Tutorial Hours: 03	T2. Bansal.R.K, "Fluid Mechanics and Hydraulic Machinery", 6th Edition, Laxmi Publications, 2005						
Sl. No.	Date	Period Reqd.	Topics to be Covered	COS	Actual Date of Completion	Mode of Teaching	Remark
01	17-03-2023	Hour #28	Impact of jets - Theory of rotor-dynamic machines	20ME404.4		PPT, Chalk and Talk	
02	21-03-2023	Hour #29	velocity components at entry and exit of the rotor	20ME404.4		Chalk and Talk	
03	23-03-2023	Hour #30	Velocity Triangles and various efficiencies	20ME404.4		PPT, Chalk and Talk	
04	23-03-2023		Tutorial - 10			Practice problems	
05	24-03-2023, 28-03-2023	Hour #31	Centrifugal pumps, working principle	20ME404.4		Industrial Tour	
06	29-03-2023, 31-03-2023	Hour #33	Work done by the impeller, performance curves	20ME404.4		Chalk and Talk	
07	04-04-2023		Tutorial - 11			Practice problems	
08	05-04-2023	Hour #35	Reciprocating pump, working principle	20ME404.4		PPT, Animation, Chalk and Talk	
09	06-04-2023	Hour #36	Rotary pumps, classification	20ME404.4		PPT, Animation, Chalk and Talk	
10	06-04-2023		Tutorial - 12			Practice problems	

Unit V  
Turbines

Text Books:

- T1. Modi P. N. and Sethi, S.M., "Hydraulics and Fluid Mechanics", 22nd Edition, Standard Book House, New Delhi 2013
- T2. Bansal R.K., "Fluid Mechanics and Hydraulic Machinery", 6th Edition, Laxmi Publications, 2005


Target Lecture Hours: 09

Target Tutorial Hours: 03

Sl. No.	Date	Period Reqd.	Topics to be Covered	COs	Actual Date of Completion	Mode of Teaching	Remark
01	11-04-2023	Hour #37	Classification of turbines, Heads and efficiencies, Velocity triangles	20ME404.5		Chalk and Talk	
02	12-04-2023, 13-04-2023	Hour #38	Pelton wheel working principles, work done by water on the runner	20ME404.5		Lab Visit	
03	13-04-2023		Tutorial - 13			Practice problems	
04	18-04-2023	Hour #40	Francis Turbine working principles, work done by water on the runner	20ME404.5		PPT, Animation, Chalk and Talk	
05	19-04-2023	Hour #41	Kaplan Turbine working principles, work done by water on the runner	20ME404.5		PPT, Animation, Chalk and Talk	
06	20-04-2023		Tutorial - 14			Practice problems	
07	20-04-2023	Hour #42	draft tube	20ME404.5		PPT, Chalk and Talk	
08	21-04-2023	Hour #43	Specific speed, unit quantities	20ME404.5		PPT, Chalk and Talk	
09	25-04-2023	Hour #44	Performance curves for turbines	20ME404.5		PPT, Chalk and Talk	
10	26-04-2023	Hour #45	Governing of turbines	20ME404.5		PPT, Chalk and Talk	
11	27-04-2023		Tutorial - 15			Practice problems	



### Attendance of Students

S.No.	Regd. No.	Name of the Student	Date	Cumulative Hours	18/11	19/11	20/11	21/11	22/11	23/11	24/11	25/11	26/11	27/11	28/11	29/11	30/11
					3	4	5	7	9	10	11	12	14	15			
1	21NU/A0301	A. Pradeep Kumar			A	A	1	3	5	6	7	8	10	11			
2	2	A. Santosh Karthik			A	A	A	2	A	3	4	5	A	6			
3	3	A. Jaya Kiran Gopal			A	A	A	A	2	3	4	A	A	5			
4	4	A. Shyam Kumar			A	A	A	2	A	3	A	A	5	6			
5	5	A. Deepthi			A	2	A	4	6	7	8	9	A	10			
6	6	B.S. Krishna Prasad			A	A	A	2	4	5	6	7	9	10			
7	7	B. Raghavendra			A	A	A	2	4	5	6	7	9	10			
8	8	B. Chiana Babu			A	A	A	2	4	5	6	7	9	10			
9	9	B. Mahesh			A	A	A	2	4	5	6	7	A	8			
10	10	D. Mahendra Reddy			A	A	A	A	A	1	A	1	A				
11	11	D. Dinesh Kumar			A	2	3	5	7	8	9	10	A	11			
12	12	D. Mahesh			A	2	A	4	6	7	8	9	11	12			
13	13	D. Vivek			A	A	A	A	A	1	2	3	5	6			
14	15	G. Hanikanta			A	A	A	2	4	5	6	7	A	8			
15	16	G. Koolu Prasad			A	A	A	A	A	1	2	3	A	A			
16	18	G. Venu			A	A	A	A	A	A	1	A	A	A			
17	19	G. Sandeep			A	A	A	2	4	A	A	A	6	7			
18	20	G. Archil			A	A	1	3	A	4	5	6	A	A			
19	21	H. Thanveez			A	A	A	A	A	1	2	3	5	A			
20	22	K. Gimmath			A	A	A	2	A	3	4	A	A	5			
21	23	K. Bhasakar Rao			A	A	A	A	2	3	4	5	A	A			
22	24	K. Tishan Kumar			A	A	A	A	A	A	1	A	2				
23	25	K. Chandu			A	A	A	2	4	5	6	A	8	9			
24	26	K. Hemarath Kumar			A	A	A	2	4	5	A	6	8	A			
25	27	K. Tagadibh			A	A	A	2	4	5	6	7	9	10			
26	28	M.G. Sai Swamy			A	A	A	2	4	5	6	7	9	10			
27	29	M. Dilip Kumar			A	2	3	5	7	8	9	10	12	13			
28	30	M. Bharu			A	A	1	3	5	6	7	8	10	11			
29	32	M. Dhanush			A	A	A	2	4	5	6	7	9	10			
30	33	N. Tharun Kumar Reddy			A	A	A	A	A	1	2	3	5	6			
31	34	N. Balaji			A	A	A	A	2	3	4	A	A	5			
32	35	P. Sabadev			A	A	A	A	A	1	2	3	A	4			
33	36	P. Koushik Satya Sai			A	A	A	2	4	5	6	7	3	4			
34	37	P. Chandu			A	A	1	3	5	6	7	A	9	10			
35	38	P.G.K. Sai Kishore			A	2	A	5	7	8	9	10	A	11			
36	39	P. Teja			A	2	A	4	6	7	8	A	10	11			
37	40	P. Varun Teja			A	A	A	2	4	5	6	7	9	10			
38	41	P. Bhasakar Sai			A	A	1	3	5	6	7	8	10	11			
39	42	R. Chanakya			A	A	A	2	4	5	6	7	9	10			
Signature of the Faculty																	

### Attendance of Students

S.No.	Regd. No.	Name of the Student	Date	Cumulative Hours	18/11	19/11	20/11	21/11	22/11	23/11	24/11	25/11	26/11	27/11	28/11	29/11	30/11
					3	4	5	7	9	10	11	12	14	15			
16	17	18	19	20	22	24	26	28	29	31	32	33					
12	13	14	15	A	17	19	A	A	20	22	23	24					
7	8	9	10	A	12	A	A	A	14	A	A						
A	A	A	7	8	10	A	14	A	11	13	14	15					
6	7	A	9	11	13	15	A	16	18	19	20						
A	7	8	9	10	12	A	14	A	15	17	18	19					
11	12	13	14	15	17	A	19	A	20	22	23	24					
11	12	13	A	14	16	18	20	22	23	25	26	27					
11	12	13	14	15	17	19	21	A	22	24	25	26					
A	9	10	11	12	A	14	16	A	17	19	20	21					
A	2	3	4	5	7	A	A	A	8	10	11	12					
12	13	14	15	16	18	A	20	22	23	25	26	27					
13	14	15	16	17	19	21	23	25	26	28	29	30					
7	8	9	10	A	12	14	16	18	19	21	22	23					
9	10	11	12	13	A	15	17	19	20	22	23	24					
A	4	A	A	A	A	A	A	A	5	7	8	9					
2	3	A	A	4	A	A	A	A	A	A	A	A					
8	9	10	11	12	14	16	18	A	19	21	22	23					
A	7	8	9	A	11	13	A	A	A	A	A	A					
A	A	A	A	6	8	10	A	A	11	13	14	15					
A	A	6	7	8	10	12	14	A	15	17	18	19					
6	7	A	8	9	11	13	15	A	16	18	19	20					
3	4	5	6	7	A	9	11	A	12	14	15	16					
10	11	12	13	14	A	A	16	A	17	19	20	21					
9	10	11	12	13	A	A	15	A	16	18	19	20					
11	12	13	14	15	17	A	A	A	A	A	A	A					
11	12	13	14	15	17	A	A	A	18	20	21	22					
14	A	15	16	17	19	21	23	25	26	28	29	30					
12	13	14	15	16	18	20	22	A	23	25	26	27					
11	A	12	13	14	16	18	20	22	23	25	26	27					
7	8	9	10	11	13	15	17	A	18	20	21	22					
6	7	8	A	A	10	12	14	A	15	17	18	19					
A	A	5	A	6	A	A	8	A	9	11	12	13					
5	6	7	8	A	A	A	10	A	11	13	14	15					
11	12	13	14	15	17	19	21	23	24	26	27	28					
12	13	14	15	16	18	20	22	24	25	27	28	29					
12	13	14	15	16	18	A	20	A	21	23	24	25					
11	12	13	14	15	17	19	21	23	24	26	27	28					
12	13	14	15	A	17	19	21	23	24	26	27	28					
A	A	11	12	13	15	17	19	21	22	24	25	26					







### Attendance of Students

S.No	Regd. No.	Name of the Student	Date	Cumulative Hours	18/11	19/11	20/11	21/11	22/11	23/11	24/11	25/11	26/11	27/11
					20	4	5	7	9	10	11	12	14	15
40	344	T. Laxman Sai			A	2	3	5	7	A	A	B	10	11
41	45	V. Vinay			A	2	A	4	6	7	8	9	11	12
42	46	M. Shyam Kumar			A	A	A	2	4	5	6	7	A	B
43	501	A. Pavan Kumar			A	A	A	2	4	5	6	7	9	10
44	2	A. Vamsi			A	A	A	2	4	5	6	A	A	7
45	3	B. Sri Vinay			A	A	A	2	4	5	6	7	9	10
46	4	Ch. Hanu			A	A	A	2	4	5	6	8	9	
47	5	Ch. Pavan Kumar			2	4	5	7	9	10	11	12	14	15
48	6	D. Hemant Kumar			A	A	A	2	4	5	6	7	A	A
49	7	D. Sai			A	A	A	2	4	5	6	A	A	7
50	8	T. Nagendra Babu			A	A	A	2	4	5	6	7	9	10
51	9	T. Laksh			A	A	A	2	4	A	5	A	7	8
52	10	K. Rohith Reddy			A	A	A	2	4	A	A	A	6	7
53	11	K. Rajesh			A	A	A	A	2	3	4	5	7	8
54	12	K. D. Pavan Kumar			A	A	A	2	4	A	A	A	6	
55	13	L. Raja Tharun			A	A	A	2	4	5	6	A	8	9
56	14	H. Sanjay Raj			A	A	A	2	4	5	6	7	9	10
57	15	N. V. Suresh Kumar			2	A	A	2	4	5	6	7	9	10
58	16	N. V. Swathi			A	A	A	2	4	A	A	A	A	A
59	17	N. Abhishek			A	2	A	2	A	3	4	5	7	8
60	18	N. Ahlad			A	A	A	2	4	A	5	A	A	A
61	19	P. Srinil			2	A	A	2	4	5	6	7	9	A
62	20	P. Bhagya Raj			A	A	A	2	4	5	6	7	A	8
63	21	P. H. Arjuni			A	A	A	2	4	5	6	7	9	10
64	22	P. Balaji			A	A	A	2	4	A	5	6	8	9
65	23	S. Arjun			A	A	A	2	4	5	6	7	A	8
66	24	V. Kuma Raju			A	A	2	2	4	5	6	7	9	10
67	25	V. K. Vamsi			A	A	A	2	4	5	6	7	9	10
68														
69														
70														
71														
72														
73														
74														
75														
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Signature of the Faculty

*[Handwritten Signature]*

### Attendance of Students

S.No	Regd. No.	Name of the Student	Date	Cumulative Hours	18/11	19/11	20/11	21/11	22/11	23/11	24/11	25/11	26/11	27/11
					20	4	5	7	9	10	11	12	14	15
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
A	11	12	13	14	15	16	17	18	19	20	21	22	23	24
10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
A	8	9	10	11	12	13	14	15	16	17	18	19	20	21
9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
9	A	A	A	A	11	13	15	17	18	20	A	21		
6	7	8	9	10	12	A	14	16	17	19	20	21		
10	11	12	13	14	16	18	20	A	21	23	24	25		
9	10	11	12	13	14	16	18	20	A	21	23	24	25	
10	11	12	13	14	16	18	20	A	21	23	24	25	26	
9	10	11	12	13	15	17	19	21	A	22	24	25	26	
11	12	13	14	15	17	19	21	A	22	24	25	26	27	

S.No	Best one (Total)	Remarks
1	27	
2	27	
3	25	
4	20	
5	23	
6	18	
7	28	
8	24	
9	22	
10	25	
11	24	
12	26	
13	26	
14	24	
15	24	
16	20	
17	22	
18	27	
19	29	
20	26	
21	24	
22	26	
23	26	
24	24	
25	29	

**Attendai**

S No	Regd. No.	Name of the Student
40	344	T. Lakshman
41	45	V. Vinay
42	46	M. Shyam Kumar
43	301	A. Pavan Kumar
44	2	A. Vamsi
45	3	B. Sar. Vinay
46	4	Ch. Haran
47	5	L. Pavan Kumar
48	6	D. Hemant Kumar
49	7	D. Sai
50	8	T. Narendar Babu
51	9	T. Laksh
52	10	K. Pochi Reddy
53	11	K. Rajesh
54	12	K. Pavan Kalyan
55	13	L. Raja Tharun
56	14	H. Sanyas Nag
57	15	N.V.V. Suresh Kumar
58	16	N.V. Swathi
59	17	N. Abhishek
60	18	N. Ahlad
61	19	P. Sunil
62	20	P. Bhagya Raj
63	21	P. H. Akhaji
64	22	P. Balaji
65	23	S. Karthik
66	24	V. K. Raja
67	25	V. K. Vamsi
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Signature of the Fac

**Attendance of Students**

Date	16/10	17/10	18/10	19/10	20/10	21/10	22/10	23/10	24/10	25/10	26/10	27/10	28/10	29/10	30/10	31/10	Cumulative Hours
1	34	35	37	38	39	41	42	43	44	45	47						28
2	35	32	34	35	36	38	39	40	41	41	43						29
3	37	22	24	25	26	28	29	30	A	24	33						27
4	31	28	30	31	32	34	35	36	37	38	40						28
5	20	21	23	24	25	A	27	27	29	29	31						20
6	26	27	A	28	29	31	32	33	34	36	A						27
7	26	27	29	A	30	31	33	34	35	36	A						27
8	26	27	29	A	30	31	33	34	35	36	A						27
9	26	27	29	A	30	31	33	34	35	36	A						27
10	26	27	29	A	30	31	33	34	35	36	A						27
11	26	27	29	A	30	31	33	34	35	36	A						27
12	26	27	29	A	30	31	33	34	35	36	A						27
13	26	27	29	A	30	31	33	34	35	36	A						27
14	26	27	29	A	30	31	33	34	35	36	A						27
15	26	27	29	A	30	31	33	34	35	36	A						27
16	26	27	29	A	30	31	33	34	35	36	A						27
17	26	27	29	A	30	31	33	34	35	36	A						27
18	26	27	29	A	30	31	33	34	35	36	A						27
19	26	27	29	A	30	31	33	34	35	36	A						27
20	26	27	29	A	30	31	33	34	35	36	A						27
21	26	27	29	A	30	31	33	34	35	36	A						27
22	26	27	29	A	30	31	33	34	35	36	A						27
23	26	27	29	A	30	31	33	34	35	36	A						27
24	26	27	29	A	30	31	33	34	35	36	A						27
25	26	27	29	A	30	31	33	34	35	36	A						27

**Attendance of Students**

Date	16/10	17/10	18/10	19/10	20/10	21/10	22/10	23/10	24/10	25/10	26/10	27/10	28/10	29/10	30/10	31/10	Cumulative Hours
1	48	49	51	52	53	54	55	57	58	59	60	62	63				48
2	48	49	51	52	53	54	55	57	58	59	60	62	63				48
3	48	49	51	52	53	54	55	57	58	59	60	62	63				48
4	48	49	51	52	53	54	55	57	58	59	60	62	63				48
5	48	49	51	52	53	54	55	57	58	59	60	62	63				48
6	48	49	51	52	53	54	55	57	58	59	60	62	63				48
7	48	49	51	52	53	54	55	57	58	59	60	62	63				48
8	48	49	51	52	53	54	55	57	58	59	60	62	63				48
9	48	49	51	52	53	54	55	57	58	59	60	62	63				48
10	48	49	51	52	53	54	55	57	58	59	60	62	63				48
11	48	49	51	52	53	54	55	57	58	59	60	62	63				48
12	48	49	51	52	53	54	55	57	58	59	60	62	63				48
13	48	49	51	52	53	54	55	57	58	59	60	62	63				48
14	48	49	51	52	53	54	55	57	58	59	60	62	63				48
15	48	49	51	52	53	54	55	57	58	59	60	62	63				48
16	48	49	51	52	53	54	55	57	58	59	60	62	63				48
17	48	49	51	52	53	54	55	57	58	59	60	62	63				48
18	48	49	51	52	53	54	55	57	58	59	60	62	63				48
19	48	49	51	52	53	54	55	57	58	59	60	62	63				48
20	48	49	51	52	53	54	55	57	58	59	60	62	63				48
21	48	49	51	52	53	54	55	57	58	59	60	62	63				48
22	48	49	51	52	53	54	55	57	58	59	60	62	63				48
23	48	49	51	52	53	54	55	57	58	59	60	62	63				48
24	48	49	51	52	53	54	55	57	58	59	60	62	63				48
25	48	49	51	52	53	54	55	57	58	59	60	62	63				48

**IMarks**

Regd. No.	IMarks	Best one (Total)	Remarks
344	20.3	27	
45	21.9	25	
46	13.6	20	
301	23.6	23	
2	15.1	18	
3	22	28	
4	17.2	24	
5	19.8	22	
6	20.7	25	
7	20.6	24	
8	22.6	26	
9	22	26	
10	22	26	
11	20.5	24	
12	20.3	22	
13	22.8	23	
14	24.2	24	
15	22.3	30	
16	22.2	23	
17	20.2	22	
18	21.5	27	
19	21.3	29	
20	24.2	26	
21	24.2	24	
22	26.2	26	
23	26.3	26	
24	23.7	24	
25	28.8	29	



### DIARY OF LECTURES

S.No.	Date	Unit No.	Period(s) Cumulative	Topic Covered	Remarks
1	18-1-23		2	Introduction	
2	19-1-23		4	Introduction to all unit	
3	20-1-23	I	5	Properties of fluids	
4	24-1-23	I	7	Problems on topics	
5	25-1-23	I	9	Viscosity & Problem	
6	20-1-23		10	"	
7	31-1-23		11	Compressibility, Surface Tension	
8	1-2-23		12	Capillary, Vapour Pressure	
9	2-2-23		16	Pressure & its measurement	
10	3-2-23		15	Manometer	
11	7-2-23		16	D-Tube Differential	
12	8-2-23		17	Problem	
13	14-2-23		18	Buoyancy & Metacentre	
14	15-2-23	II	19	Types of flow, Discharge	
15	16-2-23		20	Continuity Eq	
16	22/2/23		22	Bernoulli's Eq	
17	23/2/23		24	Bernoulli's Eq	
18	3/3/23		26	Pitot tube, Venturi Eq	
19	4/3/23		28	Orifices, Jets	
20	7/3/23		29	Mid Exam	
21	9/3/23		31	Mid Exam	
22	10/3/23		32	Mid Exam Paper 2	
23	11/3/23		33	"	
24	14/3/23		34	Product Expo	
25	15/3/23	III	35	Dimensional Analysis	
26	16/3/23		37	Buoyancy & Metacentre	
27	17/3/23		38	Problem	
28	21/3/23		39	Impact of Jet on Stationary	
29	23/3/23		41	" " " Curved plate	
30	24/3/23		42	Problem	
31	25/3/23		43	P. E. Supply Tank	
32	28/3/23	IV	44	Moving Curved Plate	
33	4/4/23		45	Problem	
34	11/4/23		47	Workshop on 3-D Print	
35	11/4/23		48	Problem	
36	13/4/23		50	Irregular Plate	
37	17/4/23		51	Drum	
38	21/4/23		53,54	Problems on Centrifugal	
39	26/4/23		55	" " Reciprocating	
40	27/4/23	V	57	Introduction to Tur	
41	28/4/23		58	Pelton wheel Tur	

Note : Leaves / OD's / Suspension Classes should be shown with red ink.

### DIARY OF LECTURES

S.No.	Date	Unit No.	Period(s) Cumulative	Topic
48	2/5/23		59	Problem
49	3/5/23		60	Francis Turbine,
50	4/5/23		62	Problems, Draft
51	5/5/23		63	Problem on "

Note : Leaves / OD's / Suspension Classes should be shown with red ink.



**PC | 20ME404 Fluid Mechanics & Hydraulic Machines**

At the end of the course, students will be able to

Code	Course Outcomes	Mapping with POs				Bok
		PO1	PO2	PO3	PO4	
20ME404.1	Classify the properties of fluid and study of fluid in static condition	1	1	1	1	L2
20ME404.2	Interpret the dynamics of fluids and boundary layer conditions	1	1	1	1	L2
20ME404.3	Demonstrate natural and forced convection using dimensional analysis	2	1	1	1	L2
20ME404.4	Select the appropriate pump based on its working principle and operation	2	2	1	1	L3
20ME404.5	Identify the performance and construction of various types of flow in turbines	2	1	1	1	L3

1. Weekly Contributions | 2. Moderately Contributions | 3. Strongly Contributions for the attainment of respective Pos  
L1: Remember | L2: Understanding | L3: Apply | L4: Analyse | L5: Evaluate | L6: Create | Bok: Depth of Knowledge

11 + 1 Hours

**Unit I: Fluid Properties and Flow Characteristics**

Units and dimensions- Properties of fluids- mass density, specific weight, specific volume, specific gravity, viscosity, compressibility, vapour pressure, surface tension and capillary and Measurement of pressures, Flow characteristics, application of continuity equation, energy equation and momentum equation. Total Pressure and Centre pressure for Plane Surface. Buoyancy and Floating-buoyancy centre of buoyancy, Meta centre, Meta centre height, Condition of Equilibrium of floating and submerged bodies. Oscillation of a floating Body

11 + 1 Hours

**Unit II: Flow through Circular Conduits**

Types of fluid motion -Flow of flow, Continuity equation, Velocity and acceleration, Potential function and Vorticity flow, Equation of motion-Euler's equation of motion, Bernoulli's equation, applications of Bernoulli's equation, Concept of control volume, energy equation and momentum equation. Hydraulic and energy gradient, Laminar flow through circular conduits and circular annulus. Boundary layer concepts - Types of boundary layer thickness, Darcy Weisbach equation, friction factor-minor losses, Flow through pipes in series and parallel.

11 + 1 Hours

**Unit III: Dimensional Analysis**

Need for dimensional analysis, methods of dimensional analysis, Similitude, types of similitude, Dimensionless parameters, application of dimensionless parameters - Model analysis, Undistorted and distorted models

11 + 1 Hours

**Unit IV: Pumps**

Impact of jets - Theory of turbodynamic machines, various efficiencies, velocity components at entry and exit of the rotor, velocity triangles, Centrifugal pumps, working principle, work done by the impeller, performance curves, Reciprocating pump, working principle, Rotary pumps, classification.

11 + 1 Hours

**Unit V: Turbines**

Classification of turbines, Heads and efficiencies, velocity triangles, Axial, radial and mixed flow turbines, Pelton wheel, Francis turbine and Kaplan turbines, working principles, work done by water on the runner, draft tube, Specific speed, unit quantities, performance curves for turbines, governing of turbines. Hydraulic Press and Hydraulic Accumulators

11 + 1 Hours

**Text Books:**

1. Modi P.N and Saha S.M. "Hydraulics and Fluid Mechanics", Standard Book House, New Delhi, 2013.
2. Bansal R.K. "Fluid Mechanics and Hydraulic Machinery", 6<sup>th</sup> Edition, Laxmi Publications, 2005.
3. V.A.Cengal J.M.Cimbala. "Fluid Mechanics: Fundamentals and Applications", 6<sup>th</sup> Edition, McGraw-Hill
4. Dixon "Fluid Mechanics", 7<sup>th</sup> Edition, Elsevier

**Reference Books:**

1. Gasaol W.P. "Engineering Fluid Mechanics", Taylor & Francis, Indian Reprint, 2011
2. Kumar K. L., "Engineering Fluid Mechanics", Eurasia Publishing House (P) Ltd., New Delhi 2016
3. Robert W.Fox, Alan T. McDonald, Philip J.Pritchard, "Fluid Mechanics and Machinery", Eurasia Publishing, 2011
4. Steeple, V. L. and Wyle E. B., "Fluid Mechanics", McGraw Hill Publishing Co., 2010

**Web References:**

1. <https://www.nptel.ac.in/course/121104/121104118/>
2. [http://digital.academyofeducation.in/mediaserver/content/117/KANPUR/machine/wu/Course\\_home\\_7.htm](http://digital.academyofeducation.in/mediaserver/content/117/KANPUR/machine/wu/Course_home_7.htm)
3. <http://nptel.ac.in/resources/121105/1829/>
4. <http://www.scribd.com/doc/14614618/Fluid-Mechanics-Fundamentals-and-Applications-by-Cengal-Cimbala-3rd-2014-5-23>

**Internal Assessment Pattern**

Cognitive Level	Internal Assessment #1 (%)	Internal Assessment #2 (%)
L1	60	40
L2	40	60
L3	-	-
L4	-	-
Total (%)	100	100

**Sample Short and Long Answer Questions of Various Cognitive Levels**

**L1: Remember**

1. Define surface tension on a liquid droplet.
2. Define buoyancy.
3. Define dimensional analysis.
4. Define momentum thickness.

**L2: Understand**

1. A U-tube is made of two capillaries of diameter 1mm and 1.5mm respectively. The tube is kept vertically and partially filled with water of surface tension 0.0736 N/m and zero contact angle. Calculate the difference in the levels of the meniscus caused by the capillary.
2. State Darcy-Weisbach equation OR What is the expression for head loss due to friction?
3. List the repeating variables used in Buckingham  $\pi$  theorem
4. Explain in detail about Specific speed of turbine & type
5. Briefly explain about Conditions in centrifugal pumps.

**L3: Applying**

1. A centrifugal pump with an impeller diameter of 0.4m runs at 1450rpm. The angle at outlet of the backward curved vane is 25° with tangent. The flow velocity remains constant at 3m/s. If the manometric efficiency is 84%. Determine the fraction of the kinetic energy at outlet recovered as static head.
2. A reaction turbine at 450 rpm, head 120 m, diameter at inlet 120 cm, flow area 0.4 m<sup>2</sup> has angles made by absolute and relative velocities at inlet 20° and 60° respectively. Find volume flow rate, H<sub>1</sub> and Efficiency.
3. Derive expression for the force exerted by the jet of water on a series of moving radial curved vanes mounted on a wheel. Also find the maximum efficiency.

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