

#### **NAAC CRITERIA 1.1.1**

Curricula developed and implemented have relevance to the local, regional, national, and global developmental needs, which is reflected in the Programme outcomes (POs) and Course Outcomes (COs) of the Programmes offered by the institution

RVCE is committed to implementing robust curricula for all its programmes to meet the local, national, regional and global needs. RVCE firmly believes that the curricula should provide both knowledge and skills to meet the current and future challenges. The curriculum design process ensures that Programme Outcomes (POs), Programme Specific Outcomes (PSOs), Course Outcomes (COs) reflect this commitment. POs of all the programmes offered by RVCE align with those specified by the National Board of Accreditation to ensure the domain knowledge, professional skills, attitudes and professional ethics.

RVCE systematically adopts the curricula as stipulated by the Statutory Regulatory Authorities, namely, Learning Outcome Curricular Framework of UGC and Course Curricular Framework of the Higher Education Council of Karnataka, Model curriculum of AICTE and VTU. This ensures that the curricular remain in harmony with national needs. The programme curricula at RVCE are thoroughly scrutinised and approved by Academic Advisory Committee (AAC), Boards of Studies (BoS), and finally the Academic Council (AC).

The curriculum design at RVCE includes identifying, understanding and developing strategies to meet the local and regional needs. The components of the curricula such as courses on local language (Kannada - HSS112BK/ HSS113BK), Environment & Sustainability- CV232AT, Advanced Course in Entrepreneurship - 18G7H16, Ability Enhancement course - 21HSAE39 A/B/C/D/E address local perspectives, culture and socioeconomic parameters and hence lead to enhancement in employability. The POs, PSOs and COs of the programmes are aligned to impart the specific knowledge and skills relevant to the local needs. Minor projects and EL in some courses are oriented towards solving social and local issues.

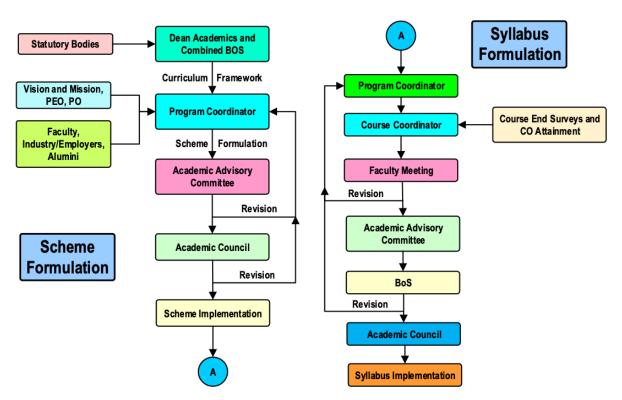
RVCE is committed to provide education and skills to meet the national challenges. The curricula are designed and implemented aligning with the national priorities and technological advances across different sectors of the economy. The curricula are regularly revised and updated to include the contemporary courses reflecting industry trends. The POs, PSOs and COs ensure meeting relevant National mission objectives such as digital literacy, research and innovation, ethical practices and national missions. To address national priorities the engineering curricula, include Design Thinking as a mandatory course in second year to stimulate the students to evolve solutions to the issues on water, energy and Education which are also part of the Sustainable Development Goals (SDGs)

RVCE places high importance for addressing global needs in the programme curricula. The curricula include mandated course of professional practice I and II focussing on 21<sup>st</sup> Century skills. The Design Thinking Course address SDGs. The POs, PSOs, and COs of the Programs drive global competencies and challenges. The program design emphasizes a balanced integration of foundational, core, and discipline-specific electives, along with the courses aimed at enhancing abilities and skill development. This holistic approach ensures well-rounded education conducive to successful careers and lifelong learning.

The curricula are evolved based on guidelines of AICTE, VTU, Professional Societies, feedback from industry and alumni, curricula of Institutions of Excellence and technological advancements. Approval of BoS and AC authenticate the inclusiveness of the curricula. The curricula incorporate key elements such as experiential learning, project-based and design thinking labs, industry-driven electives, tailored first-year courses, industry visits, and robust evaluation mechanisms. Thus, the programme curricula address the local, regional, national and global needs.



#### **Curriculum Design Process adopted at RVCE**



The initial step in designing curriculum is to formulate the curriculum scheme in-line with the Program Outcomes (POs) and Program Specific Outcomes (PSOs) of the program. Before finalizing the scheme, the Program Coordinator recommends the Course Coordinator/faculty members to check the scheme and syllabi of National and International universities. To adopt any course into the curriculum, feedback from faculties, Alumni, students and industry are collected and consolidated. Based on the feedback obtained, scheme of the curriculum is finalized with the faculty members of the Program. The program coordinator then identifies the course coordinator for drafting the course syllabus. The course coordinator drafts the course syllabus by referring to the various universities (both national and international) and PO, PSO and program specific criteria. The draft syllabus is presented to Academic Advisory Committee (AAC) for review, which is later placed in the BoS for suggestions and Approval.



# New Courses Introduced for 2018, 2021 and 2022 scheme across all programmes at RVCE that have relevance to the local, regional, national, and global developmental needs

2018 scheme	2021 scheme	2022 scheme
Design Thinking lab	21HSU48 - Universal Human	ME111DL - IDEA LAB (Idea
	Values and Professional Ethics	Development, Evaluation &
	varues and i foressional Ethics	Application)
		21HSAE46A/B/C/D/E
		Ability Enhancement course
18HS38-Vyavaharika	211ICI19 Indian Unavoladas	National Service Scheme (NSS)
Kannada / Aadalitha	21HSI18 - Indian Knowledge Systems	National Cadet Corps (NCC)
Kannada		Physical Education
		Music / Dance / Lights Camera Drama
		Art / Photography
AICTE Activity	21ME25 -IDEA Lab	HSS125YL - Scientific Foundations of
points	21ME23 -IDEA Lab	Health-Yoga Practice
Elective A: MOOC	21HCV16 Vega Practice	HSS111EL - Communicative English-I
COURSES	21HSY16 - Yoga Practice	_
Trada um alaira	21HSE17/27 - Technical	Basket courses in
Internship	English – I & II	ESC/ETC/Programming Languages
Minor Project	Maths Physics and chemistry	Maths Physics and chemistry offering
	offering cluster wise	cluster wise
	Skill Lab	

#### **Distribution of Credits over different schemes**

Sl.	Catagowy	Category Distribution of Credits				
No.	Category	2018	2021	2022		
1	Humanities & Social Science	9	11	12		
2	Basic Science	26	23	23		
3	Engineering Science	20	20	22		
4	Professional Cores (PC)	72	67	61		
5	Professional Electives	16	13	12		
6	Other Electives & AEC	09	05	12		
7	Project Work / Internship	23	21	18		
	TOTAL		160	160		

#### **AICTE Activity Points**

The All-India Council for Technical Education (AICTE) serves as a pivotal body entrusted with the task of regulating and advancing technical education nationwide, catering to the developmental needs at local, regional, national, and global levels. In alignment with the Programme Outcomes (POs) and Course Outcomes (COs) of the programs offered by institutions, AICTE has introduced the Student Activity Point system to foster comprehensive growth among students. This system encompasses a diverse array of activities spanning various categories, including participation in technical workshops or conferences, volunteering for community service or social causes, organizing awareness campaigns on pressing social issues, orchestrating sports

tournaments or fitness-related initiatives, and hosting entrepreneurship events or startup competitions. Each of these activities is assigned a specific number of points based on its relevance to the developmental needs at different levels and the extent of student engagement required.

- Everyday college regular student admitted to the 4 years degree program shall earn 100 points and 3
  years degree program shall earn 75 activity points for the award of degree through AICTE activity
  points program.
- The activity points earned shall be reflected on the student's eighth semester grade card
- The activities can be spread over the years (duration of the program), anytime during the semester
  weekends and holidays, as per the interest and convenience of the student from the year of entry to the
  completion program.
- Activity points (non-credit) have no effect on SGPA/CGPA and shall not be considered for vertical progression.
- In case students fail to earn the prescribed activity points, an eighth semester grade card shall be issued only after earning the required activity points. Students shall be admitted for the award of degree only after the release of the eighth semester grade card.

### **Experiential Learning Component in every course**

Experiential learning component in every course emphasizes hands-on, practical experiences as a primary means of learning and immerses students in real-world activities, situations, or simulations addressing the local and regional needs of the society.

Some of the pedagogical approaches commonly used in experiential learning are provided in the figure below. Students have an option to combine 3 to 4 courses experiential learning and do an integrated Experiential learning

# **Experiential Learning Methods**

Course Augmentation	Innovative Methods	Industry-Institute	Liberal Education	Co-Curricular
Methods  1. Tests / Quizzes  2. Assignments on mind blogging problems  3. Preparation of pamphlets / brochures course wise  4. Developing additional contents  5. Handbook preparations, course wise along with standards  6. NPTEL/MOOC course certification  7. Viva voce on topic in a course  8. Seminar  9. Rresearching on topic / literature review  10. Group of students writing a book  11. Seminar Video  12. Case Study building	<ol> <li>Innovation in motivating for a course</li> <li>Product development</li> <li>Development of innovative experiments in each course</li> <li>Open ended experiments</li> <li>Demonstration</li> <li>MATLAB / any other software use: course wise</li> <li>Coding using Python / R programming for relevant topic in a course</li> <li>Ideathons / Hacathons / Makathons, course wise and reporting</li> <li>Virtual Experiments development</li> <li>Design Thinking</li> </ol>	1. Industrial visit / inplant training 2. Industrial Tour 3. Sectoral studies in respective courses 4. Survey on topic in a course 5. Expert lecture / guest lecture ft consolidation 6. Industrial problem solving 7. Virtual Internships 8. Mini projects 9. Interviewing subject experts on a topic and reporting 10. Professional association activities 11. Survey on startups in a course 12. Short internship, course related	<ol> <li>Debate</li> <li>Group discussion</li> <li>Essay / extended essay</li> <li>Reading a book and presenting</li> <li>Concept map for cognitive abilities</li> <li>Articles in newspapers/ relevant magazines</li> <li>Role play</li> <li>Peer mentoring</li> <li>Visual communication: charts, photos, diagrams, paintings</li> <li>TEDx talks</li> </ol>	1. Participation in technical symposium & reporting 2. Writing a journal paper / paper presentation in conferences 3. Poster presentations 4. Writing a whitepaper on new technologies 5. Project exhibitions



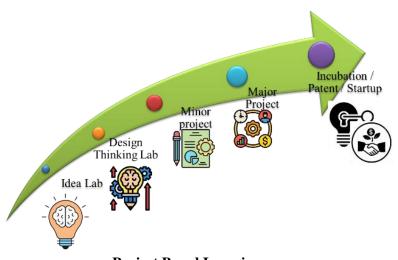
# Project Based Learning through IDEA (Idea Development, Evaluation & Application) lab / Design thinking Lab

**IDEA Lab** – Students get hands-on experience to interface various Digital and Analog sensors with Arduino. Students will be able to connect sensors and devices to various IoT Platforms. They also improved coding experience with C, C++, HTML and JavaScript.

The Design Thinking Lab is a hands-on space where students use the design thinking methodology to tackle real-world challenges creatively. They start by understanding people's needs (empathy), brainstorming and coming up with lots of ideas (ideation), creating prototypes to test their ideas (prototyping), and then refining their solutions based on feedback (iteration). Through teamwork, workshops, and mentorship, students learn how to apply this human-centered approach to solve complex problems and make a positive impact on society.

Adopting a holistic educational approach that is cognizant of local, regional, national, and global developmental needs, RVCE integrates IDEA Lab, Design Thinking Lab, Minor Projects, and Major Projects into the curriculum, aligning with the Programme Outcomes (POs) and Course Outcomes (COs). This comprehensive learning journey is meticulously designed to nurture students' creativity, critical thinking, and problem-solving abilities while addressing contemporary societal challenges. The IDEA Lab serves as a catalyst for innovative ideation and collaborative brainstorming, fostering a culture of creativity and exploration. Complementing this, the Design Thinking Lab offers a structured framework for students to refine their ideas into practical solutions, emphasizing user-centric design methodologies. Through Minor Projects, students engage in hands-on application of design thinking principles, creating prototypes that address realworld problems and contribute to local and regional development. Subsequently, Major Projects delve into more complex challenges, synthesizing insights from earlier stages to develop innovative and sustainable solutions with broader societal impacts. This interconnected approach not only cultivates a holistic understanding of the innovation process but also instils entrepreneurial thinking, equipping students with essential skills for effectively tackling multifaceted engineering issues. By seamlessly integrating theory with practical application, this educational journey empowers students to translate innovative ideas into tangible outcomes, ranging from entrepreneurial ventures to impactful patents, thus fostering a culture of innovation and entrepreneurship that addresses diverse developmental needs at various levels.

Figure show the journey of Idea generation to Incubation / patent / Startup



**Project Based Learning** 



#### One course each in odd and even SEM under MOOC with NPTEL

These courses, facilitated through online platforms, provide students with opportunities to learn from experts in various technical fields, access high-quality educational resources, and gain practical skills relevant to their disciplines. Integrating MOOC courses into the curriculum enhances students' learning outcomes, exposes them to contemporary industry trends and advancements, and promotes lifelong learning habits essential for their professional growth and adaptability in the ever-evolving engineering landscape.

# Ability Enhancement Course, Universal Human Values, Indian Knowledge Systems, Yoga Practice – Part of Credit

Ability enhancement courses for students serve as invaluable tools for personal and academic growth, offering a structured platform to develop essential skills beyond traditional curricula. These courses focus on areas such as communication, critical thinking, problem-solving, time management, and leadership, providing students with a well-rounded skill set that prepares them for success in various academic pursuits and future career endeavors. By incorporating experiential learning, practical exercises, and interactive sessions, these courses not only enhance students' academic performance but also equip them with the confidence and capabilities to navigate challenges effectively and make informed decisions in their personal and professional lives. Table 2.1.10 a & b lists some of the Ability enhancement courses offered for 2021 and 2022 scheme respectively.

#### Ability enhancement courses for 2021scheme

	120					
Sl. No.	Course code	Course Title				
1	21HSAE46A	National Service Scheme (NSS)				
2	21HSAE46B	National Cadet Corps (NCC)				
3	21HSAE46C	Physical Education				
4	21HSAE46D	Music/Dance/Theatre				
5	21HSAE46E	Art work/ Painting/ Photography & Film making				

#### Ability enhancement courses for 2022scheme

	Tibility dimensional courses for 2022sending					
Sl. No.	Course code	Course Title				
1	HS237AL	National Service Scheme				
2	HS237BL	National Cadet Corps				
3	HS237CL	Physical Education: Sports & Athletics				
4	HS237DL	Music				
5	HS237EL	Dance				
6	HS237FL	Theatre (Light Camera & Action)				
7	HS237GL	Art Work & Painting				
8	HS237HL	Photography & Film Making				

#### **Universal Human Values (UHV)**

Learning about Universal Human Values (UHV) helps students to understand important values like kindness, honesty, and respect for others. This learning encourages students to make good choices and be responsible in how they treat people and handle conflicts. It also teaches them to be aware of their emotions, deal with challenges better, and feel happier. Overall, UHV education helps students become better individuals who can contribute positively to their communities and have more meaningful lives.



#### **Indian Knowledge Systems (IKS)**

Studying Indian Knowledge Systems (IKS) helps students to learn about India's rich culture, ancient wisdom, and different fields like Ayurveda, yoga, math, and philosophy. By studying IKS, students develop critical thinking and problem-solving skills while gaining a holistic view of life and society. They also learn to respect diversity and care for the environment. Overall, IKS education gives students a broader understanding of their heritage and the world around them.

#### **Yoga Practice**

The Yoga Practice course helps students to improve physical health by making them more flexible and stronger, which is important for long hours of studying and working on projects. Yoga also teaches them how to manage stress; stay focused, and think more clearly, which are valuable skills for their studies and future careers. Overall, this course helps students lead a healthier and more balanced life while also improving their academic and professional performance.

#### Skill Lab

This is Relevant to the specialization of the B E program and has been introduced every year up to III year. Totally 60 hours of skill-based session will be conducted @ 6 hours / day & for 10 working days. It will spread into two semesters. One week in odd sem and one week in even semester.

Skill labs offer invaluable outcomes for students by providing hands-on learning experiences that complement theoretical knowledge. These labs enhance practical skills such as problem-solving, critical thinking, and decision-making in a controlled environment, allowing students to apply classroom concepts directly. They also foster teamwork, communication, and collaboration among peers, essential for success in professional settings. Furthermore, skill labs promote creativity, innovation, and adaptability, preparing students to tackle real-world challenges with confidence and competence. Ultimately, these labs empower students with practical skills and a deeper understanding of their field, enhancing their academic performance and future career prospects.

# Introducing basket courses in Engineering Science, Emerging Technology and Programming Languages.

Introducing basket courses in Engineering Science, Emerging Technology, and Programming Languages can significantly enrich the learning experience of students by offering a comprehensive and interdisciplinary approach. These basket courses would integrate various subjects and concepts, providing students with a holistic understanding of modern technological landscapes. Emerging Technology basket courses would focus on cutting-edge advancements like artificial intelligence, machine learning, and internet of things (IoT), blockchain, and renewable energy technologies. Students would learn about the latest trends, applications, and implications of these technologies in various industries.



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### 2018 Scheme

G G 1	Code Comes Title		NEEDS A	DDRESSE	D
Course Code	Course Title	Local	Regional	National	Global
	I YEAR COURSES			•	
	Link to the relevant docume				
	First Year 2018 Scheme & Syllabus 18 Dec 2	1 1	<u> </u>		1
18MA11	Engineering Mathematics-I	Yes	Yes	Yes	Yes
18PH12	Engineering Physics			Yes	Yes
18EE13	Elements of Electrical Engineering			Yes	Yes
18CV14	Elements of Civil Engineering and Mechanics			Yes	Yes
18EE15	Elements of Engineering Practices			Yes	Yes
18ME16	Computer Aided Engineering Drawing			Yes	Yes
18HS17	English Language Laboratory-1			Yes	Yes
18CH12	Engineering Chemistry			Yes	Yes
18CS13	Programing in C			Yes	Yes
18EC14	Elements of Electronics Engineering			Yes	Yes
18ME15	Elements of Mechanical Engineering			Yes	Yes
18HS16	English Language Laboratory-1	Yes	Yes	Yes	Yes
18MA21	Engineering Mathematics-II	Yes	Yes	Yes	Yes
18PH22	Engineering Physics			Yes	Yes
18EE23	Elements of Electrical Engineering			Yes	Yes
18CV24	Elements of Civil Engineering and Mechanics			Yes	Yes
18EE25	Elements of Engineering Practices			Yes	Yes
18ME26	Computer Aided Engineering Drawing			Yes	Yes
18HS27	English Language Laboratory- II	Yes	Yes	Yes	Yes
18CH22	Engineering Chemistry			Yes	Yes
18CS23	Programing in C			Yes	Yes
18EC24	Elements of Electronics Engineering			Yes	Yes
18ME25	Elements of Mechanical Engineering			Yes	Yes
18HS26	English Language Laboratory-II	Yes	Yes	Yes	Yes
	AEROSPACE ENGINEEI	RING			
	Link to the relevant docum	nent			
	1ASIII _ IV_SEM_SYLLABUS1.pdf				
	1. AS V VI Sem_2018_Syllabus1.pd				
10N/A 21 CV	1. AS VII & VIII 2018 SYLLABUS.pc	I		37	37
18MA31C*	Engineering Mathematics - III	Yes	Yes	Yes	Yes
18ME32**	Engineering Materials (Common to ME, IM & AS)	Yes	Yes	Yes	Yes
18AS33	Introduction to Aerospace Engineering			Yes	Yes
18AS34	Thermodynamics			Yes	Yes
18AS35	Mechanics of Fluids			Yes	Yes
18AS36	Structural Mechanics			Yes	Yes

	G TWO		NEEDS A	DDRESSE	D
Course Code	Course Title	Local	Regional	National	Global
18DMA37***	Bridge Course Mathematics	Yes	Yes	Yes	Yes
18HS38#	Kannada Course	Yes	Yes	Yes	Yes
18MA41C*	Engineering Mathematics-IV	Yes	Yes	Yes	Yes
18BT42A**	Environmental Technology (Common to CV, ME, IM, CH, BT & AS)	Yes	Yes	Yes	Yes
18AS43	Aerodynamics			Yes	Yes
18AS44	Aerospace Structures			Yes	Yes
18AS45	Electronics & Communication Systems			Yes	Yes
18AS46	Aerospace Manufacturing Technology			Yes	Yes
18AS47	Design Thinking lab			Yes	Yes
18DCS48***	Bridge Course: C Programming			Yes	Yes
18HS49	Professional Practice-I Communication Skills	Yes	Yes	Yes	Yes
18HEM51	Introduction to Management and Economics	Yes	Yes	Yes	Yes
18AS52	Aerospace Propulsion I			Yes	Yes
18AS53	Gas Dynamics (Theory & Practice)			Yes	Yes
18AS54	Avionics (Theory & Practice)			Yes	Yes
18AS55	Finite Element Methods (Theory & Practice)			Yes	Yes
18XX5AX	Professional Elective A (PE)** (MOOC Courses)			Yes	Yes
18G5BXX	Global Elective B (GE)*			Yes	Yes
18AS5A1	Introduction to Aircraft Design			Yes	Yes
18AS5A2	Introduction to Composites			Yes	Yes
18AS5A3	Automation in Manufacturing			Yes	Yes
18AS5A4	Scientific Computing Using Matlab			Yes	Yes
18OC5A5	The Joy of Computing Using Python			Yes	Yes
18G5BXX	Fundamentals of Aerospace Engineering			Yes	Yes
18HSI61	Intellectual Property Rights and Entrepreneurship	Yes	Yes	Yes	Yes
18AS62	Control Engineering			Yes	Yes
18AS63	Aerospace Propulsion II (Theory & Practice)			Yes	Yes
18AS64	Minor Project**	Yes	Yes	Yes	Yes
18CS6C1	Internet of Things			Yes	Yes
18AS6C2	Computational Fluid Dynamics			Yes	Yes
18AS6C3	Cryogenics			Yes	Yes
18AS6C4	Aerospace materials			Yes	Yes

			NEEDS A	DDRESSE	D
Course Code	Course Title	Local	Regional	National	Global
18AS6C5	Advanced Manufacturing Technology			Yes	Yes
18CS6D1	Machine Learning			Yes	Yes
18AS6D2	Combustion & Heat Transfer			Yes	Yes
18AS6D3	Experimental Stress Analysis			Yes	Yes
18AS6D4	Spacecraft Systems			Yes	Yes
18AS6D5	Fundamentals of Computer Networking			Yes	Yes
18GE6XX	Aircraft Systems			Yes	Yes
18HS71	Constitution of India & Professional ethics	Yes	Yes	Yes	Yes
18AS72	Aircraft Performance and Stability			Yes	Yes
18AS73	Vibration Engineering (Theory & Practice)			Yes	Yes
18AS74	Internship			Yes	Yes
18AS75	Aircraft Systems and Instrumentation (Theory & Practice)			Yes	Yes
18AS7F1	Fatigue & Fracture Mechanics			Yes	Yes
18AS7F2	Operations Research			Yes	Yes
18AS7F3	Space Dynamics			Yes	Yes
18AS7F4	Optical Fibre Communication			Yes	Yes
18AS7G1	Hypersonic Aerodynamics			Yes	Yes
18AS7G2	Theory of Aeroelasticity			Yes	Yes
18AS7G3	Helicopter Dynamics			Yes	Yes
18AS7G4	Aircraft Maintenance, Repair & Overhaul			Yes	Yes
18AS7G5	Advanced Avionics			Yes	Yes
18GH7XX	Unmanned Air Vehicles			Yes	Yes
18ASP81	Major Project	Yes	Yes	Yes	Yes
	BIO TECHNOLOGY	7			
	Link to the relevant docum BT III IV SEM SYLLABUS1.pdf 5th & 6th Sem_0.pdf (rvce.ed BT VII & VIII 2018 SYLLABUS.pdf	<u>(rvce.ed</u> lu.in)	<del></del>		
18MA31C	Engineering Mathematics-III			Yes	Yes
18BT32A	Biology for Engineers			Yes	Yes
18BT33	Concepts in Biotechnology			Yes	Yes
18BT34	Basics of Computer Applications			Yes	Yes
18CH35	Process Calculations			Yes	Yes
18BT36	Biochemistry			Yes	Yes
18DMA37	Bridge Course: Mathematics			Yes	Yes
18HS38	Kannada Course	Yes	Yes		
18MA41	Biostatistics			Yes	Yes
18BT42A	Environmental Technology	Yes	Yes	Yes	Yes

a a -	G THE		NEEDS A	DDRESSE	ED	
Course Code	Course Title	Local	Regional	National	Global	
18BT43	Unit Operations			Yes	Yes	
18BT44	Bioinformatics			Yes	Yes	
18CH45	Thermodynamics (common course for Biotechnology and Chemical)			Yes	Yes	
18BT46	Molecular Biology			Yes	Yes	
18BT47	Design Thinking lab			Yes	Yes	
18DCS48	Bridge Course: C Programming			Yes	Yes	
18HS49	Professional Practice-I Communication Skills			Yes	Yes	
18HSI51	Intellectual Property Rights & Entrepreneurship			Yes	Yes	
18BT52	Biophysics and Instrumentation			Yes	Yes	
18BT53	Genetic Engineering and Applications (Theory & Practice)			Yes	Yes	
18CH54	Process Dynamics and Control (Common to BT & CH)			Yes	Yes	
18BT55	Reaction Engineering			Yes	Yes	
18BT5AX	Elective A (PE)			Yes	Yes	
18G5BXX	Elective B (OE)*			Yes	Yes	
18HEM61	Introduction to Management and Economics***			Yes	Yes	
18BT62	Microbial Biotechnology			Yes	Yes	
18BT63	Plant and Animal Biotechnology (Theory & Practice)			Yes	Yes	
18BT64	Minor Project**			Yes	Yes	
18BT6C1	Internet of Things					
18BT6C2	Pharmaceutical Biotechnology			Yes	Yes	
18BT6C3	Agriculture Biotechnology			Yes	Yes	
18BT6C4	Plant Utilities and Biosafety in India			Yes	Yes	
18BT6C5	Systems Biology			Yes	Yes	
18CS6D1	Machine Learning			Yes	Yes	
18BT6D2	Biomedical Instrumentation			Yes	Yes	
18BT6D3	Food & Dairy Biotechnology			Yes	Yes	
18BT6D4	Fermentation Technology			Yes	Yes	
18BT6D5	Programming in Biotechnology			Yes	Yes	
18G6EXX	Elective E (OE)*			Yes	Yes	
18HSE68	Professional Practice-II (Employability Skills and Professional Development of Engineers)			Yes	Yes	
18HS71	Constitution of India and Professional Ethics			Yes	Yes	
18BT72	Downstream Process and Product Recovery (Theory and Practice)			Yes	Yes	
18BT73	Genomics, Proteomics and Nanotechnology			Yes	Yes	
18BT74	Internship / Course			Yes	Yes	

Course Code	Course Title	NEEDS ADDRESSED				
		Local	Regional	National	Global	
18BT7F1	Nanobiotechnology			Yes	Yes	
18BT7F2	Sustainable and Precision Agriculture			Yes	Yes	
18BT7F3	Equipment Design & Drawing			Yes	Yes	
18BT7F4	Artificial Intelligence			Yes	Yes	
18BT7G1	Forensic Sciences			Yes	Yes	
18BT7G2	Metabolites and Bioprospecting			Yes	Yes	
18BT7G3	Alternative Energy			Yes	Yes	
18BT7G4	Next Generation Sequencing Informatics			Yes	Yes	
18G7HXX	Elective H (OE)*			Yes	Yes	
18BTP81	Major Project	Yes	Yes	Yes	Yes	

### CHEMICAL ENGINEERING Link to the relevant document

CH III IV SEM SYLLABUS1 0.pdf (rvce.edu.in)
CH V VI Sem 2018 Syllabus1.pdf (rvce.edu.in)
CH VII & VIII 2018 SYLLABUS.pdf (rvce.edu.in)

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18MA31C*	Engineering Mathematics - III	Yes	Yes	Yes	Yes
18ME32**	Engineering Materials	Yes	Yes	Yes	Yes
18CH33	Technical Chemistry		Yes	Yes	Yes
18CH34	Momentum Transfer		Yes	Yes	Yes
18CH35	Process Calculations (Common to CH & BT)		Yes	Yes	Yes
18CH36	Chemical Plant Utilities			Yes	Yes
18DMA37***	Bridge Course: Mathematics	Yes	Yes	Yes	Yes
18HS38 #	Kannada Course	Yes	Yes	Yes	Yes
18MA41C*	Engineering Mathematics-IV	Yes	Yes	Yes	Yes
18BT42A**	Environmental Technology	Yes	Yes	Yes	Yes
18CH43	Process Heat Transfer		Yes	Yes	Yes
18CH44	Particulate Technology		Yes	Yes	Yes
18CH45	Thermodynamics (Common to CH & BT)		Yes	Yes	Yes
18CH46	Chemical Technology		Yes	Yes	Yes
18CH47	Design Thinking lab	Yes	Yes	Yes	Yes
18DCS48 ***	Bridge Course: C Programming	Yes	Yes	Yes	Yes
18HS49	Professional Practice-I Communication Skills	Yes	Yes	Yes	Yes
18HEM51	Introduction to Management & Economics	Yes	Yes	Yes	Yes
18CH52	Mass Transfer I		Yes	Yes	Yes
18CH53	Chemical Reaction Engineering (Theory & Practice)			Yes	Yes

G G 1	G WILL		NEEDS A	DDRESSE	D
Course Code	Course Title	Local	Regional	National	Global
18CH54	Process Dynamics and Control (Theory & Practice)			Yes	Yes
18CH55	Instrumental Methods of Analysis			Yes	Yes
18CH5A1	Fluidization Engineering			Yes	Yes
18CH5A2	Polymers: Concepts, Properties, Uses and Sustainability			Yes	Yes
18CH5A3	Principles of Downstream Techniques in Bioprocess			Yes	Yes
18CH5A4	Fundamentals of Micro and Nanofabrication			Yes	Yes
18CS5A5	The Joy of Computing using Python			Yes	Yes
18G5B03	Fuel Cell Technology		Yes	Yes	Yes
18HSI61	Intellectual Property Rights and Entrepreneurship	Yes	Yes	Yes	Yes
18CH62	Chemical Equipment Design and Drawing (Theory & Practice)		Yes	Yes	Yes
18CH63	Mass Transfer II (Theory & Practice)		Yes	Yes	Yes
18CH64	Minor Project**	Yes	Yes	Yes	Yes
18CS6C1	Internet of Things		Yes	Yes	Yes
18CH6C2	Industrial safety and Risk Management		Yes	Yes	Yes
18CH6C3	Biochemical Engineering		Yes	Yes	Yes
18CH6C4	Food Technology		Yes	Yes	Yes
18CS6D1	Machine Learning			Yes	Yes
18CH6D2	Biofuel Engineering		Yes	Yes	Yes
18CH6D3	Heterogeneous Reaction Engineering			Yes	Yes
18CH6D4	Chemical Process Integration			Yes	Yes
18G6E03	Sustainable Technology		Yes	Yes	Yes
18HS71	Constitution of India and Professional Ethics	Yes	Yes	Yes	Yes
18CH72	Transport Phenomena	·		Yes	Yes
18CH73	Process Simulation and Modeling			Yes	Yes
18CH74	Internship	Yes	Yes	Yes	Yes
18CH7F1	Advanced polymer composites			Yes	Yes
18CH7F2	Pilot plant studies and scale up methods			Yes	Yes
18CH7F3	Nanotechnology			Yes	Yes
18CH7F4	Energy conversion systems			Yes	Yes
18CH7G1	Process optimization			Yes	Yes
18CH7G2	Solar photovoltaic systems and Technology			Yes	Yes
18CH7G3	Water conservation and management	Yes	Yes	Yes	Yes
18CH7G4	Pollution control Engineering	Yes	Yes	Yes	Yes
18G7H03	Industrial safety and risk management		Yes	Yes	Yes

	Course Title	NEEDS ADDRESSED						
Course Code		Local	Regional	National	Global			
18CHP81	Major Project	Yes	Yes	Yes	Yes			
	COMPUTER SCIENCE AND ENGINEERING  Link to the relevant document  CS III IV SEM SYLLABUS1.pdf (rvce.edu.in)  CS-V VI-Sem 2018 Syllabus-FINAL.pdf (rvce.edu.in)  CS-V VI-Sem 2018 Syllabus-FINAL.pdf (rvce.edu.in)							
18MA31A	Linear Algebra, Laplace Transform and Combinatorics			Yes	Yes			
18BT32A	Environmental Technology 4			Yes	Yes			
18IS33	Data Structures and its Applications			Yes	Yes			
18CS34	Operating Systems			Yes	Yes			
18CS35	Foundations Of Computer Systems Design			Yes	Yes			
18CS36	Discrete Mathematical Structures			Yes	Yes			
18DCS37	Bridge Course C Programming			Yes	Yes			
18HS38A	AADALITHA KANNADA	Yes	Yes					
18HS38V	VYAVAHARIKA KANNADA	Yes	Yes					
18MA41A	Graph Theory, Statistics and Probability Theory			Yes	Yes			
18BT42B	Biology for Engineers			Yes	Yes			
18CS43	Design And Analysis Of Algorithms			Yes	Yes			
18CS44	Microcontrollers and Embedded Systems			Yes	Yes			
18CS45	Object Oriented Programming Using JAVA			Yes	Yes			
18CS46	Computer Networks			Yes	Yes			
18DMA48	Bridge Course Mathematics			Yes	Yes			
18HS49	Professional Practice-I Communication Skills	Yes	Yes	Yes	Yes			
18HSI51	Intellectual Property Rights and Entrepreneurship	Yes	Yes	Yes	Yes			
18CS52	Finite Automata Formal Languages			Yes	Yes			
18CS53	Database Design (Common to CS & IS)			Yes	Yes			
18CS54	Network Programming and Security			Yes	Yes			
18IS55	Software Engineering			Yes	Yes			
18CS5AX	Group A: Professional Electives							
18CS5A1	Object Oriented System Development using UML, Java and Patterns			Yes	Yes			
18IS5A2	Social Networks (Common to CS & IS)			Yes	Yes			
18CS5A3	Applied Natural Language Processing			Yes	Yes			
18CS5A4	Introduction to robotics			Yes	Yes			
18CS5A5	The Joy of Computing using Python (Common to All Branches)			Yes	Yes			
18CS5A6	Functional and Conceptual Design			Yes	Yes			
18CS5A7	Natural Language Processing			Yes	Yes			

G G 1	Course Title		NEEDS ADDRESSED				
Course Code		Local	Regional	National	Global		
18CS5A8	Blockchain and its Applications			Yes	Yes		
18G5BXX	Group B: Global Elective						
18G5B04	Intelligent Systems			Yes	Yes		
18HEM61	Introduction to Management & Economics			Yes	Yes		
18CS62	Artificial Intelligence and Machine Learning (Common to CS & IS)			Yes	Yes		
18CS63	Compiler Design			Yes	Yes		
18CS64	Minor Project	Yes	Yes	Yes	Yes		
18CS6CX	Group C: Professional Electives						
18CS6C1	Internet of Things (common to all branches)			Yes	Yes		
18IS6C2	Advanced Algorithms			Yes	Yes		
18CS6C3	Fuzzy Logic (Common to CS & IS)			Yes	Yes		
18CS6C4	Data Warehousing and Data mining			Yes	Yes		
18CS6C5	Big Data Analytics Using Distributed Platforms (Industry Offered) (Common to CS & IS)	Yes	Yes	Yes	Yes		
18IS6D1	Web Technology (Common to CS & IS)			Yes	Yes		
18CS6D2	Quantum Computing			Yes	Yes		
18CS6D3	Artificial Neural networks			Yes	Yes		
18CS6D4	Probability, Statistics and Queuing Theory			Yes	Yes		
18CS6D5	Robotic Process Automation Design & Development (Industry Offered)			Yes	Yes		
18G6E04	Graph Theory			Yes	Yes		
18HS68	Professional Practice-II (Employability Skills and Professional Development of Engineers)	Yes	Yes	Yes	Yes		
18HS71	Constitution of India and Professional Ethics	Yes	Yes	Yes	Yes		
18CS72	Computer Graphics and Virtual Reality			Yes	Yes		
18CS73	Parallel Architecture and Distributed Programming			Yes	Yes		
18CS74	Internship	Yes	Yes	Yes	Yes		
18CS7F1	Linux Internals			Yes	Yes		
18CS7F2	Game Theory			Yes	Yes		
18CS7F3	Information Storage Management			Yes	Yes		
18CS7F4	Software Defined Networks			Yes	Yes		
18CS7F5	Introduction to Optimization Techniques			Yes	Yes		
18CS7GX	Elective G (PE)						
18CS7G1	Cyber Security for Industry 4.0			Yes	Yes		
18CS7G2	Application Delivery Controller and Virtualization			Yes	Yes		
18CS7G3	Fuzzy Graphs, Fuzzy Soft Sets and Petrinets			Yes	Yes		
18CS7G4	Computer Vision			Yes	Yes		

Course Code	Commo Tido	NEEDS ADDRESSED			
Course Code Course Title	Local	Regional	National	Global	
18IS7G5	Deep Learning			Yes	Yes
18G7H04	Web Programming			Yes	Yes
18CSP81	Major Project	Yes	Yes	Yes	Yes

## **ELECTRONICS AND COMMUNICATION ENGINEERING** Link to the relevant document

EC III IV SEM SYLLABUS1.pdf (rvce.edu.in) ECE V VI Sem 2018 Syllabus1.pdf (rvce.edu.in)

EC VII & VIII 2018 SYLLABUS-compressed.pdf (rvce.edu.in)						
18MA31B	Discrete and Integral Transforms			Yes	Yes	
18BT32A	Environmental Technology			Yes	Yes	
18EC33	Analog Microelectronic Circuits			Yes	Yes	
18EC34	Analysis & Design of Digital Circuits			Yes	Yes	
18ET35	Principles of Electromagnetic Fields	Yes	Yes	Yes	Yes	
18EE36	Network Analysis			Yes	Yes	
18DMA37#	Bridge Course Mathematics	Yes	Yes	Yes	Yes	
18HS38 #	Kannada Course	Yes	Yes	Yes	Yes	
18MA41B	Linear Algebra, Statistics and Probability Theory					
18EC42	Engineering Materials			Yes	Yes	
18EC43	Advanced Digital System Design using Verilog HDL			Yes	Yes	
18EI44	Microprocessor & Microcontroller			Yes	Yes	
18ET45	Signals and Systems			Yes	Yes	
18EC46	Analog Integrated Circuits Design			Yes	Yes	
18DCS48	Bridge Course C Programming			Yes	Yes	
18HS49	Professional Practice-I Communication Skills			Yes	Yes	
18HSI51	Intellectual Property Rights & Entrepreneurship			Yes	Yes	
18EC52	Embedded System Design			Yes	Yes	
18EC53	Communication Systems – 1	Yes	Yes	Yes	Yes	
18EC54	Digital VLSI Design	Yes	Yes	Yes	Yes	
18EC55	Digital Signal Processing and Machine Learning			Yes	Yes	
18EC5A1	OP-AMP Practical Applications: Design Simulation and Implementation			Yes	Yes	
18EC5A2	Fiber Optic Communication Technology			Yes	Yes	
18EC5A3	The Joy of Computing Using Python					
18EC5A4	Probability Foundations for Electrical Engineers			Yes	Yes	
18CS5A5	Programming in JAVA	Yes	Yes	Yes	Yes	
18G5B01	Fundamentals of Aerospace Engineering			Yes	Yes	
18G5B02	Nanotechnology			Yes	Yes	
18G5B03	Fuel Cell Technology			Yes	Yes	
18G5B04	Intelligent Systems			Yes	Yes	

G G 1	G WILL		DDRESSE	SED	
Course Code	Course Title	Local	Regional	National	Global
18G5B05	Remote Sensing and Geographic Information System	Yes	Yes	Yes	Yes
18G5B06	Automotive Electronics			Yes	Yes
18G5B07	E-Mobility			Yes	Yes
18G5B08	Smart Sensors & Instrumentation			Yes	Yes
18G5B09	Operations Research			Yes	Yes
18G5B10	Management Information Systems			Yes	Yes
18G5B11	Automotive Mechatronics			Yes	Yes
18G5B12	Telecommunication systems				
18G5B13	Quantum Mechanics of Hetero/Nano Structures	Yes	Yes	Yes	Yes
18G5B14	Thin Films and Nanotechnology	Yes	Yes	Yes	Yes
18G5B15	Advances in corrosion science and technology			Yes	Yes
18G5B16	Computational Advanced Numerical Methods			Yes	Yes
18G5B17	Mathematics for Machine Learning			Yes	Yes
18G5B18	Engineering Economics			Yes	Yes
18HEM61	Introduction to Management and Economics			Yes	Yes
18EC62	Computer Networks and Protocols			Yes	Yes
18EC63	Communication Systems – 2			Yes	Yes
18EC64	Minor Project**	Yes	Yes	Yes	Yes
18EC6CX	Elective C: Professional Electives	Yes	Yes	Yes	Yes
18EC6DX	Elective D: Professional Electives			Yes	Yes
18G6EXX	Elective E: Global Electives			Yes	Yes
18HSE68	Professional Practice-II				
18CS6C1	Internet of Things			Yes	Yes
18EC6C2	Real Time Systems			Yes	Yes
18EC6C3	Low power VLSI Design			Yes	Yes
18EC6C4	Database Management Systems (DBMS)	Yes	Yes	Yes	Yes
18EC6C5	Control Engineering			Yes	Yes
18EC6C6	Cryptography and Network Security	Yes	Yes	Yes	Yes
18EC6D1	Digital Signal Processing using ARM Cortex M Devices	Yes	Yes	Yes	Yes
18EC6D2	Computer Vision			Yes	Yes
18EC6D3	Data Structures and Algorithms			Yes	Yes
18EC6D4	Radio Frequency & Millimetre Wave IC Design			Yes	Yes
18EC6D5	Deep Learning			Yes	Yes
18EC6D6	Algorithms for VLSI Design and Automation			Yes	Yes
18G6E06	Wearable Electronics	Yes	Yes	Yes	Yes
18G6E07	Energy Auditing and Management	Yes	Yes	Yes	Yes
18G6E13	Thin film nanodevice fabrication technology	Yes	Yes	Yes	Yes

	G TVI	NEEDS ADDRESSE			ED	
Course Code	Course Title	Local	Regional	National	Global	
18HS71	Constitution of India and Professional Ethics	Yes	Yes	Yes	Yes	
18EC72	Microwave and Radiating Systems			Yes	Yes	
18EC73	Broadband Wireless -LTE 4G			Yes	Yes	
18EC74	Internship			Yes	Yes	
18EC7FX	Elective F (PE)			Yes	Yes	
18EC7GX	Elective G (PE)			Yes	Yes	
18G7HXX	Elective H (GE)*			Yes	Yes	
18EC7F1	High Performance Computing			Yes	Yes	
18EC7F2	Mixed Signal Integrated Circuit Design	Yes	Yes	Yes	Yes	
18EC7F3	Design of Testing and Testability	Yes	Yes	Yes	Yes	
18EC7F4	Nanoelectronics			Yes	Yes	
18EC7F5	Speech Processing			Yes	Yes	
18EC7F6	Radar Systems Engineering			Yes	Yes	
18EC7G1	Automotive Electronics			Yes	Yes	
18EC7G2	Optoelectronics and Networks			Yes	Yes	
18EC7G3	System on Chip Design			Yes	Yes	
18EC7G4	Multimedia Communication			Yes	Yes	
18EC7G5	ASIC Design	Yes	Yes	Yes	Yes	
18EC7G6	ARM Programming & Optimization	Yes	Yes	Yes	Yes	
18G7H01	Unmanned Aerial Vehicles			Yes	Yes	
18G7H02	Bioinformatics			Yes	Yes	
18G7H03	Industrial Safety and Risk Management			Yes	Yes	
18G7H04	Web Programming			Yes	Yes	
18G7H05	Solid Waste Management and Statutory Rules			Yes	Yes	
18G7H06	Image Processing with Machine Learning			Yes	Yes	
18G7H07	Renewable Energy Sources and Storage System			Yes	Yes	
18G7H08	MEMS and Applications			Yes	Yes	
18G7H09	Project Management			Yes	Yes	
18G7H10	Cyber Forensics and Digital Investigations			Yes	Yes	
18G7H11	Robotics and Automation			Yes	Yes	
18G7H12	Space Technology and Applications			Yes	Yes	
18G7H13	Introduction to Astrophysics			Yes	Yes	
18G7H14	Materials for Advanced Technology and Spectroscopic Characterization			Yes	Yes	
18G7H15	Applied psychology for Engineers			Yes	Yes	
18G7H16	Advanced Course in Entrepreneurship			Yes	Yes	
18ECP81	Major Project			Yes	Yes	

Carrer Cada	Course Title		NEEDS ADDRESSED					
Course Code	Course Title	Local	Regional	National	Global			
	CIVIL ENGINEERING  Link to the relevant document  CV III _ IV_SEM_SYLLABUS1.pdf (rvce.edu.in)  CV V _ VI Sem_2018_Syllabus1.pdf (rvce.edu.in)  CV VII & VIII 2018 SYLLABUS.pdf (rvce.edu.in)							
18MA31C	Engineering Mathematics - III			Yes	Yes			
18CV32**	Civil Engineering Materials			Yes	Yes			
18CV33	Surveying			Yes	Yes			
18CV34	Concrete Technology			Yes	Yes			
18CV35	Strength of Materials			Yes	Yes			
18CV36	Water Supply Engineering			Yes	Yes			
18DMA37	Bridge Course: Mathematics			Yes	Yes			
(18HS38A)	Kannada Course: AADALITHA KANNADA/VYAVAHARIKA KANNADA	Yes	Yes	Yes	Yes			
18MA41C	Engineering Mathematics-IV			Yes	Yes			
18BT42A	Environmental Technology			Yes	Yes			
18CV43	Fluid Mechanics			Yes	Yes			
18CV44	Building Construction and Planning			Yes	Yes			
18CV45	Structural Analysis- I			Yes	Yes			
18CV46	Soil Mechanics			Yes	Yes			
18CV47	Design Thinking Lab			Yes	Yes			
18DCS48	Bridge Course: C Programming			Yes	Yes			
18HS49	Professional Practice-I Communication Skills	Yes	Yes	Yes	Yes			
18HEM51	Introduction to Management and Economics			Yes	Yes			
18CV52	Structural Analysis II			Yes	Yes			
18CV53	Design and Drawing of RCC Structures			Yes	Yes			
18CV54	Highway Engineering			Yes	Yes			
18CV55	Hydrology and Irrigation Engineering			Yes	Yes			
18CV5AX	Group A: Professional electives (MOOC Courses)			Yes	Yes			
18G5BXX	Group B:Global Elective			Yes	Yes			
18HSI61	Intellectual Property Rights and Entrepreneurship			Yes	Yes			
18CV62	Design and Drawing of Steel Structures			Yes	Yes			
18CV63	Waste Water Engineering			Yes	Yes			
18CV6CX	Estimation and Costing	Yes	Yes	Yes	Yes			
18CV6CX	Elective C: Professional Electives			Yes	Yes			
18CV6DX	Elective D: Professional Electives			Yes	Yes			
18HS68	Elective E: Global Elective			Yes	Yes			

C C- 1-	C T'4	NEEDS ADDRESSED				
Course Code	Code Course Title		Regional	National	Global	
18HS68	Professional Practice- II (Employability Skills and Professional Development of Engineers)			Yes	Yes	
18HS71	Constitution of India and Professional Ethics	Yes	Yes	Yes	Yes	
18CV72	Geotechnical Engineering			Yes	Yes	
18CV73	Extensive Survey project	Yes	Yes	Yes	Yes	
18CV74	Internship*	Yes	Yes	Yes	Yes	
18CV7FX	Elective F (PE)Professional Elective			Yes	Yes	
18CV7GX	Elective G (PE) Professional Elective			Yes	Yes	
18G7HXX	Elective H (Open Elective)			Yes	Yes	
18CVP81	Major Project	Yes	Yes	Yes	Yes	
	ELECTRONICS AND INSTRUMENTATION	ON EN	TINEERIN	G		

#### ELECTRONICS AND INSTRUMENTATION ENGINEERING Link to the relevant document

Microsoft Word - 8.EIE 7 8SEMESTER 2018 (rvce.edu.in)						
18MA31B	Discrete And Integral Transforms	Yes				
18BT32A	Environmental Technology	Yes				
18EE33	Analog Electronic Circuits		Yes	Yes		
18EC34	Analysis & Design of Digital Circuits		Yes	Yes		
18EI35	Data Structures Using C		Yes	Yes		
18EI36	Measurement & Process Instrumentation		Yes	Yes		
18MA41B	Linear Algebra, Statistics and Probability Theory	Yes	Yes	Yes		
18EC42	Engineering Materials	Yes				
18EI43	Sensors And Actuators		Yes	Yes		
18EI44	Microprocessor & Microcontroller		Yes	Yes		
18TE45	Signals And Systems		Yes	Yes		
18EE46	Control Systems		Yes	Yes		
18EI47	Design Thinking Lab		Yes	Yes		
18HS49	Professional Practice – I		Yes	Yes		
18HEM51	Introduction To Management & Economics		Yes	Yes		
18EI52	Data Networks		Yes	Yes		
18TE53	Digital Signal Processing		Yes	Yes		
18EI54	VLSI Design		Yes	Yes		
18EI55	Virtual Instrumentation & Simulation		Yes	Yes		
18G5B08	Smart Sensors & Instrumentation		Yes	Yes		
18HSI61	Intellectual Property Rights And Entrepreneurship		Yes	Yes		
18EI62	Automatic Process Control Technology		Yes	Yes		
18EI63	Advanced Micro-Controller & Application		Yes	Yes		
18EI64	Minor Projects		Yes	Yes		

G G 1	C T'41-		NEEDS ADDRESSED				
Course Code	Course Title Local Regiona		Regional	National	Global		
18CS6C1	Internet of Things			Yes	Yes		
18EI6C2	Aircraft Instrumentation			Yes	Yes		
18EI6C3	Advanced Control Systems			Yes	Yes		
18EI6C4	Robotics			Yes	Yes		
18CS6D1	Machine Learning			Yes	Yes		
18EI6D2	Biomedical Instrumentation			Yes	Yes		
18EI6D3	Application Specific Integrated Circuits (ASIC)			Yes	Yes		
18EI6D4	Real Time Operating Systems			Yes	Yes		
18G6E08	Virtual Instrumentation & Applications			Yes	Yes		
18HS68	Professional Practice – II			Yes	Yes		
18HS71	Constitution of India and Professional Ethics			Yes	Yes		
18EI72	Industrial Automation Technologies			Yes	Yes		
18EI73	Advanced Image Processing			Yes	Yes		
18EI74	Internship			Yes	Yes		
18EI7F1	Safety Instrumentation			Yes	Yes		
18EI7F2	Product Design Technology			Yes	Yes		
18EI7F3	Advanced Software Tools For Instrumentation And Controls			Yes	Yes		
18EI7F4	IOt Based Agricultural Automation			Yes	Yes		
18EI7G1	Industrial Wireless Technologies			Yes	Yes		
18EI7G2	Virtual And Augmented Reality			Yes	Yes		
18EI7G3	Biomedical Signal Processing			Yes	Yes		
18EI7G4	Low Power VLSI Design			Yes	Yes		
18G8E08	MEMS And Applications			Yes	Yes		
18EIP81	Major Project	Yes	Yes	Yes	Yes		

# **ELECTRICAL AND ELECTRONICS ENGINEERING**Link to the relevant document

6. EE III \_ IV \_SEM \_SYLLABUS1.pdf (rvce.edu.in)

6. EE V VI Sem 2018 Syllabus1.pdf (rvce.edu.in)

7. EE VII & VIII 2018 SYLLABUS compressed.pdf (rvce.edu.in)

18MA31B	DISCRETE AND INTEGRAL TRANSFORMS	Yes			
18BT32A	ENVIRONMENTAL TECHNOLOGY	Yes			
18EE33	ANALOG ELECTRONIC CIRCUITS			Yes	Yes
18EC34	ANALYSIS & DESIGN OF DIGITAL CIRCUITS			Yes	Yes
18ET35	Principles of Electromagnetic Fields			Yes	Yes
18EE36	Network Analysis			Yes	Yes
18DMA37	Bridge Course: Mathematics	Yes			
18HS38	Kannada Course		Yes		

<b>Course Code</b>	Course Title	NEEDS ADDRESSED				
		Local	Regional	National	Global	
18MA41B	LINEAR ALGEBRA, STATISTICS AND PROBABILITY THEORY	Yes				
18EC42	ENGINEERING MATERIALS			Yes	Yes	
18EE43	Electrical Machines-I			Yes	Yes	
18EI44	MICROPROCESSOR & MICROCONTROLLER			Yes	Yes	
18TE45	SIGNALS AND SYSTEMS			Yes	Yes	
18EE46	CONTROL SYSTEMS			Yes	Yes	
18EI47	DESIGN THINKING LAB	Yes				
18DCS48	Bridge Course: C Programming	Yes				
18HS49	PROFESSIONAL PRACTICE – I	Yes				
18HEM51	INTRODUCTION TO MANAGEMENT & ECONOMICS	Yes				
18EE52	Electrical Machines-II			Yes	Yes	
18TE53	Digital Signal Processing			Yes	Yes	
18EE54	Generation Transmission and Distribution			Yes	Yes	
18EE55	Minor Project			Yes		
18HEM61	Foundations of Management & Economics	Yes				
18EE62	Power Electronics Applications to drives			Yes	Yes	
18EE63	Modern Control Theory			Yes	Yes	
18EE64	Power System Analysis-I			Yes	Yes	
18EE6C2	Object Oriented Programming with C++			Yes	Yes	
18EE6C3	ARM Microcontroller and Embedded Systems			Yes	Yes	
18EE6C4	High Voltage Engineering			Yes	Yes	
18EE6C5	VLSI Circuit and Design			Yes	Yes	
18EE6D2	Electric Vehicles			Yes	Yes	
18EE6D3	Programmable Logic Controller and Supervisory Control & Data Acquisition (PLC And SCADA)			Yes	Yes	
18EE6D4	Electrical and Electronic Measuring Instruments			Yes	Yes	
18EE6D5,	Fuzzy Logic Control and Applications,			Yes	Yes	
18HS71	Constitution of India and Professional Ethics	Yes				
18EE72	Power System Analysis –II			Yes	Yes	
18EE73	Switchgear & Protection			Yes	Yes	
18EE7F1	Computer Communication and Networking			Yes	Yes	
18EE7F2	Advanced Power Electronics			Yes	Yes	
18EE7F3	Smart Grid Technology			Yes	Yes	
18EE7F4	Digital Protection of Power Systems			Yes	Yes	
18EE7F5	Discrete Control Systems			Yes	Yes	
18EE7G1	Industrial Drives and Applications			Yes	Yes	

Course Code	Course Title	NEEDS ADDRESSED				
		Local	Regional	National	Global	
18EE7G2	Electrical Installation Estimation and Costing			Yes	Yes	
18EE7G3	Object Oriented Modeling and Design			Yes	Yes	
18EE7G4	Power System Operation and Control			Yes	Yes	
18EE7G5	ASIC Design			Yes	Yes	
18G7H07	Renewable Energy Sources and Storage System			Yes	Yes	
18EEP81	Major Project	Yes	Yes	Yes	Yes	

# ELECTRONICS AND TELECOMMUNICATION ENGINEERING

Link to the relevant document

<u>12TEIII IV SEM SYLLABUS1 new compressed.pdf (rvce.edu.in)</u> <u>4-TE-2018-V-VI-scheme-syllabus-full.pdf (rvce.edu.in)</u>

12. TE VII & VIII 2018 SYLLABUS.pdf (rvce.edu.in)

	12. TE VITO VIII 2010 STEEMDOS.put [	vcc.cac	4.111 <i>1</i>		
18MA31B	Discrete and Integral Transforms	Yes	Yes	Yes	Yes
18BT32A	Environmental Technology	Yes	Yes	Yes	Yes
18EE33	Analog Electronic Circuits		Yes	Yes	Yes
18EC34	Analysis & Design of Digital Circuits		Yes	Yes	Yes
18TE35	Principles of Electromagnetic Fields		Yes	Yes	Yes
18EE36	Network Analysis		Yes	Yes	Yes
18DMA37	Bridge Course: Mathematics			Yes	Yes
18HS38	Kannada Course	Yes	Yes	Yes	Yes
18MA41B	Linear Algebra, Statistics and Probability Theory	Yes	Yes	Yes	Yes
18EC42	Engineering Materials		Yes	Yes	Yes
18TE43	Analog Communication		Yes	Yes	Yes
18EI44	Microprocessor & Microcontroller	Yes	Yes	Yes	Yes
18TE45	Signals and Systems	Yes	Yes	Yes	Yes
18TE46	Object Oriented Programming With C++			Yes	Yes
18DCS48	Bridge Course: C programming	Yes	Yes	Yes	Yes
18HS49	Professional Practice-I Communication Skills			Yes	Yes
18HSI51	Intellectual Property Rights and Entrepreneurship		Yes	Yes	Yes
18TE52	Digital Modulation & Coding		Yes	Yes	Yes
18TE53	Digital Signal Processing	Yes	Yes	Yes	Yes
18TE54	Microwave Engineering		Yes	Yes	Yes
18TE55	Telecommunication Switching Systems		Yes	Yes	Yes
18TE5A1	Introduction to Embedded System Design	Yes	Yes	Yes	Yes
18TE5A2	Semiconductor Devices and Circuits			Yes	Yes
18TE5A3	Control systems		Yes	Yes	
18TE5A4	Computer architecture and organization	Yes	Yes	Yes	Yes
18CS5A5	The Joy of Computing using Python			Yes	
18G5B12	Telecommunication Systems		Yes	Yes	Yes

	Course Title	NEEDS ADDRESSED					
Course Code		Local	Regional	National	Global		
18HEM61	Introduction to Management and Economics		Yes	Yes	Yes		
18TE62	Antenna & Propagation		Yes	Yes	Yes		
18TE63	Computer Communication Networks		Yes	Yes	Yes		
18TE64	Minor Project		Yes	Yes	Yes		
18CS6C1	Internet of Things and Edge Computing			Yes	Yes		
18TE6C2	Image Processing & Computer Vision	Yes	Yes	Yes	Yes		
18TE6C3	DSP Applications			Yes	Yes		
18TE6C4	Operating Systems			Yes	Yes		
18CS6D1	Machine Learning	Yes	Yes	Yes	Yes		
18TE6D2	CMOS Digital Integrated circuits		Yes	Yes	Yes		
18EC6D3	Data Structures and Algorithms		Yes	Yes	Yes		
18TE6D4	JAVA		Yes	Yes	Yes		
18G6E12	Mobile Network System & Standards		Yes	Yes	Yes		
18HS71	Constitution of India and Professional Ethics	Yes	Yes	Yes	Yes		
18TE72	Wireless Communication		Yes	Yes	Yes		
18TE73	Optical Fiber Communication		Yes	Yes	Yes		
18TE74	Internship (6 weeks)		Yes	Yes	Yes		
18TE7F1	Application Specific Integrated Circuits		Yes	Yes	Yes		
18TE7F2	MIMO systems		Yes	Yes	Yes		
18TE7F3	Deep Learning and Artificial Intelligence		Yes	Yes	Yes		
18TE7F4	Wireless Networks and Standards		Yes	Yes	Yes		
18TE7F5	RF Circuits and Systems	Yes	Yes	Yes	Yes		
18TE7G1	5G Mobile Networks	Yes	Yes	Yes	Yes		
18TE7G2	Multimedia communication	Yes	Yes	Yes	Yes		
18TE7G3	Cryptography and Network Security		Yes	Yes	Yes		
18TE7G4	Satellite and Navigation Systems		Yes	Yes	Yes		
18TE7G5	Wireless Sensor Networks		Yes	Yes	Yes		
18G7H12	Space Technology and Applications	Yes	Yes	Yes	Yes		
18TEP81	Major Project	Yes	Yes	Yes	Yes		
INDUSTRIAL ENGINEERING AND MANAGEMENT  Link to the relevant document  9. IM III IV SEM SYLLABUS1.pdf (rvce.edu.in)  9. IM V VI Sem 2018 Syllabus1.pdf (rvce.edu.in)  9. IM VII & VIII 2018 SYLLABUS.pdf (rvce.edu.in)							
18MA31C	Engineering Mathematics – III	. vcc.cat		Yes	Yes		
18ME32	Engineering Materials			Yes	Yes		
18IM33	Principles of Fluid Mechanics & Thermodynamics			Yes	Yes		
18IM34	Metrology & Measurements			Yes	Yes		

Q 2.1	Course Title	NEEDS ADDRESSED				
Course Code		Local	Regional	National	Global	
18IM35	Work Systems Design		Yes	Yes	Yes	
18IM36	Manufacturing Processes			Yes	Yes	
18DMA37	Bridge Course: Mathematics				Yes	
18HS38	Vyavaharika Kannada / Aadalitha Kannada	Yes	Yes			
18IM41	Engineering Statistics			Yes	Yes	
18BT42A	Environmental Technology	Yes	Yes	Yes	Yes	
18IM43	Engineering Economy and Costing		Yes	Yes	Yes	
18IM44	Computer Aided Design and Manufacturing				Yes	
18IM45	Decision Sciences - Deterministic Models				Yes	
18IM46	Strength of Materials and Machine Design				Yes	
18IM47	Design Thinking lab	Yes	Yes	Yes	Yes	
18DCS48	Bridge Course: C Programming				Yes	
18HS49	Professional Practice-I (Communication Skills)			Yes		
18HEM51	Introduction to Management & Economics	Yes	Yes	Yes	Yes	
18IM52	Decision Sciences - II (Stochastic Models)			Yes	Yes	
18IM53	Statistical Process Control				Yes	
18IM54	Operations Management		Yes	Yes	Yes	
18IM55	Marketing Management	Yes	Yes	Yes	Yes	
18IM56	Internship	Yes	Yes	Yes	Yes	
18IM5A1	Mathematical Modelling of Manufacturing Processes				Yes	
18IM5A2	Decision Support System for Managers			Yes	Yes	
18IM5A3	International Business				Yes	
18ME5A4	Rapid Manufacturing				Yes	
18CS5A5	The Joy of Computing with Python				Yes	
18G5B01	Fundamentals of Aerospace Engineering			Yes	Yes	
18G5B02	Nanotechnology			Yes	Yes	
18G5B03	Fuel Cell Technology			Yes	Yes	
18G5B04	Intelligent Systems			Yes	Yes	
18G5B05	Remote Sensing and Geographic Information System	Yes	Yes	Yes	Yes	
18G5B06	Automotive Electronics			Yes	Yes	
18G5B07	e-Mobility	Yes	Yes	Yes	Yes	
18G5B08	Smart Sensors & Instrumentation			Yes	Yes	
18G5B09	Operations Research			Yes	Yes	
18G5B10	Management Information Systems			Yes	Yes	
18G5B11	Automotive Mechatronics			Yes	Yes	
18G5B12	Telecommunication Systems			Yes	Yes	
18G5B13	Quantum Mechanics of Hetero/Nano Structures				Yes	

<b>Course Code</b>	Course Title	NEEDS ADDRESSED				
		Local	Regional	National	Global	
18G5B14	Thin Films and Nanotechnology			Yes	Yes	
18G5B15	Advances In Corrosion Science and Technology				Yes	
18G5B16	Computational Advanced Numerical Methods				Yes	
18G5B17	Mathematics for Machine Learning				Yes	
18G5B18	Engineering Economy			Yes	Yes	
18HSI61	Intellectual Property Rights & Entrepreneurship	Yes	Yes	Yes	Yes	
18IM62	Financial Accounting and Costing			Yes	Yes	
18IM63	Supply Chain Management			Yes	Yes	
18IM64	Minor Project	Yes	Yes	Yes	Yes	
18CS6C1	Internet of Things	Yes	Yes	Yes	Yes	
18IM6C2	Facilities Planning Design and Ergonomics			Yes	Yes	
18IM6C3	Multi Criteria Decision Modelling				Yes	
18IM6C4	Reliability Engineering				Yes	
18IM6C5	Advanced Manufacturing Processes				Yes	
18CS6D1	Machine Learning				Yes	
18IM6D2	Human Resource Management & Development		Yes	Yes	Yes	
18IM6D3	Simulation Modeling and Analysis			Yes	Yes	
18IM6D4	Design of Experiments				Yes	
18IM6D5	Digital Manufacturing			Yes	Yes	
18G6E01	Aircraft Systems			Yes	Yes	
18G6E02	Bio Inspired Engineering			Yes	Yes	
18G6E03	Sustainable Technology	Yes	Yes	Yes	Yes	
18G6E04	Graph Theory				Yes	
18G6E05	Disaster Management	Yes	Yes	Yes	Yes	
18G6E06	Wearable Electronics			Yes	Yes	
18G6E07	Energy Auditing and Management	Yes	Yes	Yes	Yes	
18G6E08	Virtual Instrumentation & Applications			Yes	Yes	
18G6E09	Systems Engineering			Yes	Yes	
18G6E10	Introduction To Mobile Application Development			Yes	Yes	
18G6E11	Industrial Automation				Yes	
18G6E12	Mobile Network System and Standards			Yes	Yes	
18G6E13	Thin Film Nano Device Fabrication Technology			Yes	Yes	
18G6E14	Chemistry of advanced energy storage devices for E-Mobility		Yes	Yes	Yes	
18G6E15	Advanced Statistical Methods				Yes	
18G6E16	Mathematical Modelling				Yes	
18G6E17	Foundational course in Entrepreneurship	Yes	Yes	Yes	Yes	

Course Code	Course Title		NEEDS ADDRESSED				
		Local	Regional	National	Global		
18HSE68	Professional Practice- II (Employability Skills & Professional Development of Engineers)		Yes	Yes	Yes		
18HS71	Constitution of India and Professional Ethics	Yes	Yes	Yes			
18IM72	Product Design and Development	Yes	Yes	Yes	Yes		
18IM73	Foundations of Robotics and Automation				Yes		
18IM7F1	Financial Management			Yes	Yes		
18IM7F2	Data Mining & Predictive Analytics	ľ			Yes		
18IM7F3	Applied Ergonomics	Yes	Yes	Yes	Yes		
18IM7F4	Smart Manufacturing for Industry 4.0			Yes	Yes		
18IM7F5	E-Commerce			Yes	Yes		
18IM7G1	Quality Management			Yes	Yes		
18IM7G2	Project Planning & Control	Yes	Yes	Yes	Yes		
18IM7G3	Principles of Systems Engineering			Yes	Yes		
18IM7G4	Lean Manufacturing Systems			Yes	Yes		
18IM7G5	Digital Supply Chain Management			Yes	Yes		
18G7H01	Unmanned Aerial Vehicles			Yes	Yes		
18G7H02	Bioinformatics			Yes	Yes		
18G7H03	Industrial Safety and Risk Management	Yes	Yes	Yes	Yes		
18G7H04	Web Programming				Yes		
18G7H05	Solid Waste Management and Statutory Rules	Yes	Yes	Yes	Yes		
18G7H06	Image Processing and Machine Learning				Yes		
18G7H07	Renewable Energy Sources and Storage System	Yes	Yes	Yes	Yes		
18G7H08	MEMS & Applications			Yes	Yes		
18G7H09	Project Management	Yes	Yes	Yes	Yes		
18G7H10	Cyber Forensics and Digital Investigations			Yes	Yes		
18G7H11	Robotics And Automation			Yes	Yes		
18G7H12	Space Technology and Applications			Yes	Yes		
18G7H13	Introduction To Astrophysics			Yes	Yes		
18G7H14	Materials For Advanced Technology and Spectroscopic Characterization				Yes		
18G7H15	Applied Psychology for Engineers	Yes	Yes	Yes	Yes		
18G7H16	Advanced Course in Entrepreneurship	Yes	Yes	Yes	Yes		
18IMP81	Major Project	Yes	Yes	Yes	Yes		

## INFORMATION SCIENCE AND ENGINEERING Link to the relevant document

10. IS III \_ IV \_SEM\_ SYLLABUS1.pdf (rvce.edu.in)

10.ISE-V-VI-SEM-2018-SYLLABUS.pdf (rvce.edu.in)

10. IS VII & VIII 2018 SYLLABUS-compressed.pdf (rvce.edu.in)

<b>Course Code</b>	Course Title		NEEDS ADDRESSED				
		Local	Regional	National	Global		
18MA31 A	Linear Algebra, Laplace Transformations & Combinatorial			Yes	Yes		
18BT32A	Environmental Technology			Yes	Yes		
18IS33	Data Structures and its Applications			Yes	Yes		
18IS34	Operating Systems			Yes	Yes		
18IS35	Logic Design and Computer Organization			Yes	Yes		
18CS36	Discrete Mathematical Structures			Yes	Yes		
18DCS37	Bridge Course C Programming*			Yes	Yes		
18HS38	Kannada	Yes	Yes	Yes	Yes		
18MA41 A	Graph Theory, Statistics & Probability Theory			Yes	Yes		
18BT42B	Biology for Engineers			Yes	Yes		
18CS43	Design and Analysis of Algorithms			Yes	Yes		
18IS44	Unix System Programming			Yes	Yes		
18CS45	OOPS with Java			Yes	Yes		
18IS46	Theory of Computations			Yes	Yes		
18DMA49	Bridge Course Mathematics			Yes	Yes		
18HS48	Professional Practice-I			Yes	Yes		
18HSI51	Intellectual Property Rights and entrepreneurship	Yes	Yes	Yes	Yes		
18IS52	Computer Networks			Yes	Yes		
18CS53	Database Design			Yes	Yes		
18IS54	Compiler Design			Yes	Yes		
18IS55	Software Engineering			Yes	Yes		
18IS5AX	Group A: Professional Electives (MOOC Courses)			Yes	Yes		
18G5BXX	Group B: Global Elective			Yes	Yes		
18HEM61	Introduction to Management and Economics			Yes	Yes		
18CS62	Artificial Intelligence and Machine Learning			Yes	Yes		
18IS63	Cryptography and Network Security			Yes	Yes		
18IS64	Minor Project**			Yes	Yes		
18IS6CX	Elective C: Professional Electives			Yes	Yes		
18IS6DX	Elective D: Professional Electives			Yes	Yes		
18G6EXX	Elective E: Global Elective Graph Theory			Yes	Yes		
18HSE68	Professional Practice-II			Yes	Yes		
18CS5A1	Object Oriented System Development using UML, Java and Patterns			Yes	Yes		
18IS5A2	Social Networks	Yes	Yes	Yes	Yes		
18IS5A3	Artificial Intelligence Search Methods For Problem Solving	Yes	Yes	Yes	Yes		
18TE5A4	Computer Architecture & Organization			Yes	Yes		

G G 1	Course Title		NEEDS ADDRESSED				
Course Code		Local	Regional	National	Global		
18CS5A5	The joy of Computing using Python			Yes	Yes		
18CS6C1	Internet of Things (common to all branches)			Yes	Yes		
18IS6C2	Advanced Algorithms (Common to CS & IS)			Yes	Yes		
18CS6C3	Fuzzy Logic (Common to CS & IS)			Yes	Yes		
18IS6C4	Data Storage Technologies & Networking			Yes	Yes		
18CS6C5	Big Data Analytics Using Distributed Platforms— (Industry Offered) (Common to CS & IS)			Yes	Yes		
18IS6D1	Web Technology(Common to CS & IS)			Yes	Yes		
18IS6D2	Information Retrieval	Yes	Yes	Yes	Yes		
18IS6D3	Cloud Computing	Yes	Yes	Yes	Yes		
18IS6D4	Natural Language Processing			Yes	Yes		
18IS6D5	Software Quality and Assurance			Yes	Yes		
18G5B01	Fundamentals of Aerospace Engineering			Yes	Yes		
18G5B02	Nanotechnology			Yes	Yes		
18G5B03	Fuel Cell Technology			Yes	Yes		
18G5B04	Intelligent Systems			Yes	Yes		
18G5B05	Remote Sensing and Geographic Information System			Yes	Yes		
18G5B06	Automotive Electronics			Yes	Yes		
18G5B07	E-Mobility			Yes	Yes		
18G5B08	Smart Sensors & Instrumentation			Yes	Yes		
18G5B09	Operations Research			Yes	Yes		
18G5B10	Management Information Systems			Yes	Yes		
18G5B11	Automotive Mechatronics			Yes	Yes		
18G5B12	Telecommunication Systems			Yes	Yes		
18G5B13	Quantum Mechanics of Hetero/Nano Structures			Yes	Yes		
18G5B14	Thin Films and Nanotechnology			Yes	Yes		
18G5B15	Advances in Corrosion Science and Technology			Yes	Yes		
18G5B16	Computational Advanced Numerical Methods			Yes	Yes		
18G5B17	Mathematics for Machine Learning			Yes	Yes		
18G5B18	Engineering Economy			Yes	Yes		
18G6E01	Aircraft Systems			Yes	Yes		
18G6E02	Bioinspired Engineering			Yes	Yes		
18G6E03	Sustainable Technology			Yes	Yes		
18G6E04	Graph Theory			Yes	Yes		
18G6E05	Disaster Management			Yes	Yes		
18G6E06	Wearable Electronics			Yes	Yes		
18G6E07	Energy Auditing and Management			Yes	Yes		

C C 7	C Tru	NEEDS ADDRESSED				
Course Code	Course Title	Local	Regional	National	Global	
18G6E08	Virtual Instrumentation & Applications			Yes	Yes	
18G6E09	Systems Engineering	Yes	Yes	Yes	Yes	
18G6E10	Introduction to Mobile Application Development	Yes	Yes	Yes	Yes	
18G6E11	Industrial Automation			Yes	Yes	
18G6E12	Mobile Network System and Standards			Yes	Yes	
18G6E13	Thin Film Nano device Fabrication Technology			Yes	Yes	
18G6E14	Chemistry of Advanced Energy Storage Devices for E- Mobility			Yes	Yes	
18G6E15	Advanced Statistical Methods			Yes	Yes	
18G6E16	Mathematical Modeling			Yes	Yes	
18G6E17	Foundational Course on Entrepreneurship			Yes	Yes	
18HS71	Constitution of India & Professional Ethics	Yes	Yes	Yes	Yes	
18IS72	Virtual Reality (Theory and Practice)			Yes	Yes	
18IS73	Cyber Security and Digital Forensics (Theory and Practice)	Yes	Yes	Yes	Yes	
18IS7FX	Elective F (PE-4)			Yes	Yes	
18IS7GX	Elective G (PE-5)			Yes	Yes	
18G7HXX	Elective H (OE)*			Yes	Yes	
18IS7F1	Enterprise Applications			Yes	Yes	
18IS7F2	Software Defined Networks			Yes	Yes	
18IS7F3	Human Computer Interaction			Yes	Yes	
18IS7F4	Block Chain Architecture Design and Use case (NPTEL)			Yes	Yes	
18IS7F5	Edge Computing			Yes	Yes	
18ISP81	Major Project			Yes	Yes	

## MECHANICAL ENGINEERING Link to the relevant document

11. ME III IV SEM SYLLABUS1.pdf (rvce.edu.in)
11. ME V VI Sem 2018 Syllabus1.pdf (rvce.edu.in)

11. ME VII & VIII 2018 SYLLABUS-compressed.pdf (rvce.edu.in)

18MA31C	Applied Mathematics-III			Yes
18ME32	Engineering Materials		Yes	
18ME33	Mechanics of Materials			Yes
18ME34	Concepts of Metrology and Machine Drawing	l	Yes	
18ME35	Thermal Engineering 1	l		Yes
18ME36	Kinematics of Machines	l		Yes
18MA41C	Applied Mathematics IV	l		Yes
18BT42A	Environmental Technology			Yes
18ME43	Manufacturing Process			Yes

Course Code	Course Title		NEEDS ADDRESSED				
		Local	Regional	National	Global		
18ME44	Thermal Engineering 2				Yes		
18ME45	Dynamics of Machines				Yes		
18ME46	Fluid Mechanics				Yes		
18HEM51	Introduction to Management and Economics				Yes		
18ME52	CAD / CAM				Yes		
18ME53	Heat Transfer				Yes		
18ME54	Design of Machine Elements 1				Yes		
18G5B11	Automotive Mechatronics				Yes		
18HSI61	IPR and Entrepreneurship				Yes		
18ME62	Turbomachinary				Yes		
18ME63	Design of Machine Elements 2	,			Yes		
18ME6C1	Internet of Things				Yes		
18ME6C2	Gas Dynamics and Combustion	,			Yes		
18ME6C3	Foundations of Mechatronics	,			Yes		
18ME6C4	Advanced Mechanism Design	,			Yes		
18ME6D2	Refrigeration and Air-Conditioning				Yes		
18ME6D3	Hydraulics and Pneumatics		Yes				
18ME6D4	Product Design and Development			Yes			
18ME6D5	Vehicle Dynamics		Yes				
18HSI71	Constitution of India and Ethical Practices				Yes		
18ME72	Vibrations and Control System				Yes		
18ME73	Finite Element Methods	Yes					
18ME7F1	- Industry 4.0	,	Yes				
18ME7F2	Metrology and Quality Control			Yes			
18ME7F3	Micro and Nano Manufacturing	,			Yes		
18ME7G2	Modelling and Simulation of Manufacturing Process			Yes			
18ME7G3	Manufacturing Systems Automation		Yes				
18ME7G5	Solid Mechanics	Yes					
18MEP81	Major Project	Yes					
	MASTER OF COMPUTER APP Link to the relevant document 2018 Scheme MCA.pdf (rvce.	ment	IONS				
18MAT11	Discrete Mathematics	Yes					
18MCA12	Computer Organization and Architecture	Yes					
18MCA13	Data Structures using C	Yes					
18MCA14	Object Oriented Programming	Yes					
103.501							
18MCA15	Web Programming			Yes			

Course Code	Course Title		NEEDS ADDRESSED				
		Local	Regional	National	Global		
18MCA22	E-Commerce		Yes	Yes	Yes		
18MCA23	Data Base Systems	Yes					
18MCA24	Operating Systems	Yes					
18MCA25	Java Programming						
18MCA31	Research Methodology			Yes	Yes		
18MCA32	Analysis and Design of Algorithms	Yes					
18MCA33	Computer Networks	Yes					
18MCA341	Non-Relational Databases (NOSQL)	Yes					
18MCA342	Operations Research	Yes					
18MCA343	Machine Learning	Yes					
18MCA351	Content Management System		Yes	Yes			
18MCA352	Advanced OOPS	Yes					
18MCA353	Model View Controller Programming	Yes					
18MCA41	Software Testing	Yes					
18MCA42	Mobile Application Development		Yes	Yes			
18MCA431	Information Retrieval		Yes	Yes			
18MCA432	Pattern Recognition	Yes					
18MCA433	Software Architecture	Yes					
18MCA441	Cyber Security		Yes	Yes	Yes		
18MCA442	Soft Computing	Yes					
18MCA443	Unified Modeling Language	Yes					
18MCA451	Computer Graphics	Yes					
18MCA452	Advanced Computer Networks	Yes					
18MCA453	Enterprise Application Programming	Yes					
18MCA46	Minor Project- I	Yes					
18MCA51	Software Project Management	Yes					
18MCA52	Big Data Analytics	Yes					
16MCA531	Wireless Mobile Networks			Yes			
16MCA532	Software Performance Engineering	Yes					
16MCA533	Principles of UI/UX Design			Yes	Yes		
16MCA541	Cloud Computing			Yes			
16MCA542	Internet of Things	Yes					
16MCA543	Virtual Reality			Yes	Yes		
18MCA55	Seminar-1	Yes					
18MCA56	Minor Project – II	Yes					
18MCA61	Project & Viva Voce	Yes					
18MCA62	Seminar-2	Yes					

Course Code	Course Title	NEEDS ADDRESSED				
		Local	Regional	National	Global	
MTECH IN MACHINE DESIGN  Link to the relevant document  5-MMD-MACHINE DESIGN.pdf (rvce.edu.in)						
18MMD12	Mechanics of Composite Materials			Yes		
18MMD13	Kinematics and Dynamics of Mechanisms				Yes	
18MPD1A1	Product design for quality			Yes		
18 MMD1A2	Tribology			Yes		
18MCM1A3	Design of hydraulic and pneumatic systems				Yes	
18MPD1B1	Product data management			Yes		
18MCE1B2	Intelligent systems				Yes	
18MCM1B3	Non traditional Machining and testing			Yes		
18MMD21	Advanced Solid Mechanics				Yes	
18MMD22	Advanced Theory of Vibrations				Yes	
18MMD2C1	Theory of Plates & Shells				Yes	
18MPD2C2	Design of Manufacture & Assembly			Yes		
18MMD2D1	Advanced Machine Design			Yes		
18MCM2D2	Robotics & Automation			Yes		
18MMD2D3	Advanced Finite Element Analysis				Yes	
18MMD31	Fracture Mechanics			Yes		
18MMD3E1	Mechatronics system design				Yes	
18MPD3E2	Surface Engineering				Yes	
18MMD3E3	Experimental Mechanics				Yes	
MTECH IN PRODUCT DESIGN  Link to the relevant document  3- MPD-Produc-Design-Manufacturing1.pdf (rvce.edu.in)						
18MPD12	Product design and development			Yes		
18MPD 13	Finite Element Analysis				Yes	
18 MPD1A1	Product design for quality			Yes		
18 MMD1A2	Tribology			Yes		
18MCM1A3	Design of hydraulic and pneumatic systems				Yes	
18MPD1B1	Product data management			Yes		
18MCE1B2	Intelligent systems				Yes	
18MCM1B3	Non traditional Machining and testing			Yes		
18MPD21	Robust Design				Yes	
18MPD22	Product Lifecycle Management				Yes	
18MPD2C2	Design of manufacture & Assembly				Yes	
18MPD2C3	Reliability Engineering			Yes		
18MPD2D1	Product Cost Analysis & Optimization			Yes		
18MCM2D2	Robotics & Automation			Yes		

Course Code	Course Title	NEEDS ADDRESSED				
		Local	Regional	National	Global	
18MPD31	Advanced Materials and processes				Yes	
18MPD 3E1	Reverse Engineering			Yes		
18 MPD 3E2	Surface Engineering				Yes	
18MCM 3E3	Advanced Manufacturing Practices				Yes	
MTECH IN COMPUTER INTEGRATED MANUFACTURING  Link to the relevant document  4-MCM-Computer-Integrated-Manufacturing1.pdf (rvce.edu.in)						
18MCM12	Computer control of manufacturing systems			Yes		
18MPD13	Finite Element Analysis		l		Yes	
18 MPD1A1	Product design for quality		l	Yes	l.	
18 MMD1A2	Tribology				Yes	
18 MCM1A3	Design of hydraulic and pneumatic systems				Yes	
18MPD1B1	Product data management				Yes	
18MCE1B2	Intelligent systems				Yes	
18MCM1B3	Non traditional Machining and testing			Yes		
18MCM21	Mechatronics in Manufacturing Systems				Yes	
18MCM22	Tooling for Manufacturing in Automation			Yes		
18IEM23	Research Methodology				Yes	
18MCM2C1	Automation & Production Systems				Yes	
18MPD2C2	Design of Manufacture & Assembly			Yes		
18MCM2D1	Advanced Metrology				Yes	
18MCM2D2	Robotics & Automation		l	Yes	l.	
18IEM2D3	Supply Chain Management			Yes		
18MCM 31	Digital Manufacturing				Yes	
18MCM 3E1	Additive Manufacturing		l		Yes	
18 MPD 3E2	Surface Engineering				Yes	
18MCM 3E3	Advanced Manufacturing Practices			Yes	Yes	
18ME2G06	Industry 4.0				Yes	
18ME2G07	Advanced Materials			Yes		
MTECH IN INFORMATION TECHNOLOGY  Link to the relevant document  15-MIT-Information-Technology1.pdf (rvce.edu.in)						
18MAT11B	Probability Theory and Linear Algebra			Yes	Yes	
18MSE12	Advanced Data Structures & Algorithms (Theory & Practice)			Yes	Yes	
18MIT13	Advanced Data Engineering (Theory & Practice)			Yes	Yes	
18HSS14	Professional Skills Development			Yes	Yes	
18MIT1AX	Elective – A			Yes	Yes	

G G 1	G THE		NEEDS ADDRESSED				
Course Code	Course Title	Local	Regional	National	Global		
18MIT1BX	Elective - B			Yes	Yes		
18MIT A1	Advanced Computer Networks			Yes	Yes		
18MIT1A2	Information Retrieval			Yes	Yes		
18MSE1A3	Software Architecture			Yes	Yes		
18MIT1B1	Human Computer Interaction	Yes	Yes	Yes	Yes		
18MIT1B2	Enterprise Application Development			Yes	Yes		
18MIT1B3	Soft Computing			Yes	Yes		
18MIT21	Cyber Security & Digital Forensics (Theory & Practice)	Yes	Yes	Yes	Yes		
18MIT22	Big Data Science & Analytics			Yes	Yes		
18 IM 23	Research Methodology			Yes	Yes		
18 MIT 24	Minor Project			Yes	Yes		
18 MIT 2CX	Elective – C			Yes	Yes		
18MIT2DX	Elective – D			Yes	Yes		
18 XX 2GX	Global Elective – F			Yes	Yes		
18 MIT 2C1	Wireless Networks	Yes	Yes	Yes	Yes		
18 MIT 2C2	Distributed Computing			Yes	Yes		
18 MIT 2C3	Computer System Performance & Analysis			Yes	Yes		
18 MIT 2D1	Virtual Reality	Yes	Yes	Yes	Yes		
18 MIT 2D2	Information Storage and Management			Yes	Yes		
18 MSE 2D3	Software Project Management	Yes	Yes	Yes	Yes		
18CS2G01	Business Analytics			Yes	Yes		
18CV2G02	Industrial & Occupational Health and Safety			Yes	Yes		
18IM2G03	Modeling using Linear Programming			Yes	Yes		
18IM2G04	Project Management			Yes	Yes		
18CH2G05	Energy Management			Yes	Yes		
18ME2G06	Industry 4.0			Yes	Yes		
18ME2G07	Advanced Materials			Yes	Yes		
18CHY2G08	Composite Materials Science and Engineering			Yes	Yes		
18PHY2G09	Physics of Materials			Yes	Yes		
18MAT2G10	Advanced Statistical Methods			Yes	Yes		
18 MIT 31	Internet of Things & Cloud Computing	Yes	Yes	Yes	Yes		
18 MIT 32	Internship			Yes	Yes		
18 MIT 33	Major Project : Phase-I			Yes	Yes		
18MIT3EX	Professional Elective-E			Yes	Yes		
18 MIT 3E1	Mobile Application Development	Yes	Yes	Yes	Yes		
18 MIT 3E2	Supply Chain Management	Yes	Yes	Yes	Yes		
18 MIT 3E3	Intelligent Computing			Yes	Yes		
18 MIT 41	Major Project: Phase-II			Yes	Yes		

G G 1	Course Title	NEEDS ADDRESSED							
Course Code		Local	Regional	National	Global				
18 MIT 42	Technical Seminar			Yes	Yes				
	MTECH IN SOFTWARE ENGINEERING  Link to the relevant document  14MSE-Software-Engineering1.pdf (rvce.edu.in)								
18MAT11B	Probability Theory and Linear Algebra			Yes	Yes				
18MSE12	Advanced Data Structures & Algorithms			Yes	Yes				
18MSE13	Advanced Software Quality & Testing			Yes	Yes				
18HSS14	Professional Skills Development			Yes	Yes				
18MSE1AX	Elective – A			Yes	Yes				
18MSE1BX	Elective – B			Yes	Yes				
18 MSE 1A1	Service Oriented Architecture			Yes	Yes				
18 MIT 1A2	Information Retrieval	Yes	Yes	Yes	Yes				
18 MSE 1A3	Software Architecture			Yes	Yes				
18 MSE 1B1	Fault Tolerant System			Yes	Yes				
18 MIT 1B2	Enterprise Application Development			Yes	Yes				
18 MSE 1B3	Artificial Neural Networks			Yes	Yes				
18MIT 21	Cyber Security & Digital Forensics	Yes	Yes	Yes	Yes				
18MSE 22	Human Computer Interaction	Yes	Yes	Yes	Yes				
18 IM 23	Research Methodology			Yes	Yes				
18 MSE 24	Minor Project			Yes	Yes				
18 MSE 2CX	Elective – C			Yes	Yes				
18 MSE 2DX	Elective – D			Yes	Yes				
18 XX 2GX	Global Elective			Yes	Yes				
18MSE2C1	Metrics And Models For Software Engineering			Yes	Yes				
18MCS2C2	Machine Learning			Yes	Yes				
18MIT2C3	Computer System Performance & Analysis			Yes	Yes				
18MSE2D1	Data Engineering			Yes	Yes				
18MSE2D2	Agile Technologies			Yes	Yes				
18MSE2D3	Software Project Management	Yes	Yes	Yes	Yes				
18CS2G01	Business Analytics			Yes	Yes				
18CV2G02	Industrial & Occupational Health and Safety			Yes	Yes				
18IM2G03	Modelling using Linear Programming			Yes	Yes				
18IM2G04	Project Management			Yes	Yes				
18CH2G05	Energy Management			Yes	Yes				
18ME2G06	Industry 4.0			Yes	Yes				
18ME2G07	Advanced Materials			Yes	Yes				
18CHY2G08	Composite Materials Science and Engineering			Yes	Yes				
18PHY2G09	Physics of Materials			Yes	Yes				
18MAT2G10	Advanced Statistical Methods			Yes	Yes				

			NEEDS ADDRESSED				
Course Code	Course Title	Local	Regional	National	Global		
18MSE31	SocialNetwork Analysis			Yes	Yes		
18MSE32	Internship			Yes	Yes		
18MSE33	Major Project: Phase-I			Yes	Yes		
18MSE3EX	Professional Elective -E			Yes	Yes		
18MIT3E1	Mobile Application Development	Yes	Yes	Yes	Yes		
18MSE3E2	Web Intelligence			Yes	Yes		
18MSE3E3	Natural Language Processing			Yes	Yes		
18MSE41	Major Project:Phase-II			Yes	Yes		
18MSE42	Technical Seminar			Yes	Yes		
	MTECH IN POWER ELECTI Link to the relevant docum 6- MPE-PowerElectronics1.pdf (re	nent					
18 MAT11A	Applied Mathematics	Yes					
18MPE12	Power Converters-I			Yes	Yes		
18MPE13	Control of AC – DC drives			Yes	Yes		
18HSS14	Professional (Soft) Skills Development			Yes			
18MPE1A1	Advanced Control Systems			Yes	Yes		
18MPE1A2	Intelligent Control Techniques			Yes	Yes		
18MPE1A3	Embedded Systems			Yes	Yes		
18MPE1B1	Power Quality Problems and Mitigation			Yes	Yes		
18MPE1B2	Power System Harmonics			Yes	Yes		
18MPE1B3	Smart Grid-Technology, Analysis and Applications			Yes	Yes		
18 MPE 21	Power Converters-II			Yes	Yes		
18 MPE 22	Modelling and Simulation of Power Electronic Systems			Yes	Yes		
18 IEM 23	Research Methodology			Yes	Yes		
18MPE24	Minor Project			Yes			
18MPE2C1	EMC in Power Electronics			Yes	Yes		
18MPE2C2	PWM Techniques		l	Yes	Yes		
18MPE2C3	DSP Applications to Drives		l	Yes	Yes		
18MPE2D1	Converters for Solar and Wind Systems		l	Yes	Yes		
18MPE2D2	Hybrid Electric Vehicles			Yes	Yes		
18MPE2D3	Flexible AC Transmission System			Yes	Yes		
18MPE31	Programmable Logic Controller and SCADA			Yes	Yes		
18MPE32	Internship			Yes			
18MPE33	Major Project: Phase-I			Yes			
18MPE3E1	Digital System Design			Yes	Yes		
18MPE3E2	High Voltage DC Transmission			Yes	Yes		

C C-1-	Course Title	NEEDS ADDRESSED				
Course Code		Local	Regional	National	Global	
18MPE3E3	Nanomaterials and Devices			Yes	Yes	
18MPE41	Major Project: Phase-II			Yes		
18MPE42	Technical Seminar			Yes		
	MTECH IN STRUCTURAL ENG	INEER	ING			
	Link to the relevant docum					
	MST Syllabus 2018 scheme- I to IV sem 0	).pdf (rvi	ce.edu.in)	T		
18MAT11A	Applied Mathematics			Yes	Yes	
18MST12	Computational Structural Mechanics			Yes	Yes	
18MST13	Advanced Design of Reinforced Concrete Structures			Yes	Yes	
18HSS14	Professional Skills Development	Yes	Yes	Yes	Yes	
18MST1A1	Repair and Rehabilitation of structures			Yes	Yes	
18MST1A2	Design of form work			Yes	Yes	
18MST1A3	Precast Concrete Structures			Yes	Yes	
18MST1B1	Design of Sub Structures			Yes	Yes	
18MST1B2	Advanced Structural Analysis			Yes	Yes	
18MST1B3	Structural Health Monitoring			Yes	Yes	
18MST21	Structural Dynamics			Yes	Yes	
18MST22	Mechanics of Deformable Bodies			Yes	Yes	
18IM23	Research Methodology	Yes	Yes	Yes	Yes	
18MST24	Minor Project			Yes	Yes	
18MST2C1	Structural Reliability			Yes	Yes	
18MST2C2	Design of Masonry Structures			Yes	Yes	
18MST2C3	Advanced Pre Stressed Concrete			Yes	Yes	
18MST2D1	Finite Element Method of Analysis			Yes	Yes	
18MST2D2	Design of Bridges and Grade Separators			Yes	Yes	
18MST 2D3	Plates and Shells			Yes	Yes	
18XX 2G XX	GROUP G: GLOBAL ELECTIVES			Yes	Yes	
18MST31	Special Construction Materials			Yes	Yes	
18MST32	Internship	Yes	Yes	Yes	Yes	
18MST33	Major Project: Phase I			Yes	Yes	
18MST3E1	Advanced Design of Steel Structures			Yes	Yes	
18MST3E2	Stability of Structures			Yes	Yes	
18MST3E3	Earthquake Resistant Design			Yes	Yes	
18MST41	Major Project: Phase-II			Yes	Yes	
18MST42	Technical Seminar			Yes	Yes	

Course Code	Course Title Loc	NEEDS ADDRESSED								
		Local	Regional	National	Global					
	MTECH IN VLSI AND EMBEDD		SIGN							
	Link to the relevant document  7- MVE-VLSI-Design-Embedded-Systems1.pdf (rvce.edu.in)									
10MX/E11		I.pui (ive	<u>ce.euu.iiij</u>	Vac	Vac					
18MVE11	Digital System Design using Verilog			Yes	Yes					
18MVE12	Advanced Embedded System Design	37	<b>V</b>	Yes	Yes					
18MVE13	Digital IC Design	Yes	Yes	Yes	Yes					
18HSS14	Professional Skill Development			Yes	Yes					
18MVE1A1	Advanced Computer Architecture			Yes	Yes					
18MVE1A2	ASIC Design			Yes	Yes					
18MVE1A3	Algorithms for VLSI Design			Yes	Yes					
18MVE1B1	MEMS and Smart Systems	Yes	Yes	Yes	Yes					
18MVE1B2	System On Chip Design			Yes	Yes					
18MVE1B3	Advanced VLSI Devices			Yes	Yes					
18MVE21	Analog IC Design			Yes	Yes					
18MVE22	System Verilog for Design & Verification			Yes	Yes					
18IM23	Research Methodology			Yes	Yes					
18MVE24	Minor Project			Yes	Yes					
18MVE2C1	VLSI Testing			Yes	Yes					
18MCS2C2	Machine Learning	Yes	Yes	Yes	Yes					
18MVE2C3	High speed VLSI Design	Yes	Yes	Yes	Yes					
18MVE2D1	Low Power VLSI Design			Yes	Yes					
18MVE2D2	Advanced Embedded Processors			Yes	Yes					
18MVE2D3	VLSI Digital Signal Processing Systems			Yes	Yes					
18CS2G01	Business Analytics			Yes	Yes					
18CV2G02	Industrial & Occupational Health and Safety			Yes	Yes					
18IM2G03	Modelling using Linear Programming			Yes	Yes					
18IM2G04	Project Management			Yes	Yes					
18CH2G05	Energy Management	Yes	Yes	Yes	Yes					
18ME2G06	Industry 4.0	Yes	Yes	Yes	Yes					
18ME2G07	Advanced Materials			Yes	Yes					
18CHY2G08	Composite Materials Science and Engineering			Yes	Yes					
18PHY2G09	Physics of Materials			Yes	Yes					
18MAT2G10	Advanced Statistical Methods			Yes	Yes					
18MVE31	Synthesis & Optimization of Digital Circuits			Yes	Yes					
18MVE32	Internship			Yes	Yes					
18MVE33	Major Project: Phase I			Yes	Yes					
18MVE3E1	Radio Frequency IC Design			Yes	Yes					
18MVE3E2	ARM Programming and Optimization			Yes	Yes					
18MVE3E3	Static Timing Analysis			Yes	Yes					

	Course Title		NEEDS A	DDRESSE	D				
Course Code		Local	Regional	National	Global				
18MVE41	Major Project: Phase II			Yes	Yes				
18MVE42	Technical Seminar			Yes	Yes				
MTECH IN COMMUNICATION SYSTEMS  Link to the relevant document  MCS-Communication%20Systems.pdf									
18 MAT11B	Probability Theory & Linear Algebra			Yes	Yes				
18MCS12	Advanced Communications Systems -1			Yes	Yes				
18MCS13	Advanced Communication Networks & Protocols			Yes	Yes				
18HSS14	Professional Skill Development			Yes	Yes				
18MCS1A1	Advanced Embedded Systems			Yes	Yes				
18MCS1A2	Advanced Digital Signal Processing			Yes	Yes				
18MCS1A3	RF and Microwave Circuits			Yes	Yes				
18MVE1B1	MEMS and Smart Systems			Yes	Yes				
18MCS1B2	Digital Image Processing			Yes	Yes				
18MCS1B3	Cryptography and Network Security			Yes	Yes				
18MCS21	Advanced Communications Systems -2			Yes	Yes				
18MCS22	Error Control and Coding			Yes	Yes				
18IM23	Research Methodology			Yes	Yes				
18MCS24	Minor Project			Yes	Yes				
18MCS2C1	Antenna Theory			Yes	Yes				
18MCS2C2	Machine Learning			Yes	Yes				
18MCS2C3	Optical Communication Networks			Yes	Yes				
18MCS2D1	Wireless Sensor Networks and IOT			Yes	Yes				
18MCE2D2	Deep Learning			Yes	Yes				
18MVE2D3	VLSI Digital Signal Processing Systems			Yes	Yes				
18CS2G01	Business Analytics			Yes	Yes				
18CV2G02	Industrial & Occupational Health and Safety			Yes	Yes				
18IM2G03	Modeling using Linear Programming			Yes	Yes				
18IM2G04	Project Management			Yes	Yes				
18CH2G05	Energy Management			Yes	Yes				
18ME2G06	Industry 4.0			Yes	Yes				
18ME2G07	Advanced Materials			Yes	Yes				
18CHY2G08	Composite Materials Science and Engineering			Yes	Yes				
18PHY2G09	Physics of Materials			Yes	Yes				
18MAT2G10	Advanced Statistical Methods			Yes	Yes				
18MCS31	Smart Antenna Signal Processing			Yes	Yes				
18MCS32	Internship			Yes	Yes				
18MCS33	Major Project : Phase I			Yes	Yes				

Common Codo	Course Title	NEEDS ADDRESSED				
Course Code		Local	Regional	National	Global	
18MCS3E1	Wireless Cellular and LTE 4G Broadband			Yes	Yes	
18MCS3E2	Wireline Broadband Communications			Yes	Yes	
18MCS3E3	Wireless Local Area Networks			Yes	Yes	
18MCS41	Major Project : Phase II			Yes	Yes	
18MCS42	Technical Seminar			Yes	Yes	
	M.Tech in Computer Science and I Link to the relevant docum 10- MCE-Computer-Science-Engineering1	ent	J			
18MAT11B	Probability Theory and Linear Algebra	Yes	Yes	Yes	Yes	
18MCE12	Advances in Algorithms and Applications	Yes	Yes	Yes	Yes	
18MCE13	Data Science	Yes	Yes	Yes	Yes	
18HSS14	Professional Skills Development	Yes				
18MCE1A1	Computer Network Technologies	Yes	Yes	Yes	Yes	
18MCE1A2	Data Preparation and Analysis	Yes	Yes	Yes	Yes	
18MCE1A3	Applied Cryptography	Yes	Yes	Yes	Yes	
18MCN 1B1	Cloud Computing Technology	Yes	Yes	Yes	Yes	
18MCE1B2	Intelligent Systems	Yes	Yes	Yes	Yes	
18MCN1B3	Wireless Network Security	Yes	Yes	Yes	Yes	
18MCE21	Big Data Analytics	Yes	Yes	Yes	Yes	
18MCE22	Parallel Computer Architecture	Yes	Yes	Yes	Yes	
18IM23	Research Methodology	Yes	Yes	Yes	Yes	
18MCE24	Minor Project	Yes	Yes			
18MCE2C1	Wireless and Mobile Networks	Yes	Yes	Yes	Yes	
18MCE2C2	Natural Language Processing	Yes	Yes	Yes	Yes	
18MCN2C3	Cloud Security	Yes	Yes	Yes	Yes	
18MCN2D1	Internet of Things and Applications	Yes	Yes	Yes	Yes	
18MCE2D2	Deep Learning	Yes	Yes	Yes	Yes	
18MCE2D3	Security Engineering	Yes	Yes	Yes	Yes	
18CS2G01	Business Analytics	Yes	Yes			
18MCE31	Operating System Design	Yes	Yes	Yes	Yes	
18MCE32	Internship	Yes	Yes	Yes	Yes	
18MCE33	Major Project : Phase-I	Yes				
18MCE 3E1	Software Defined Systems	Yes	Yes	Yes	Yes	
18MCE 3E2	Web Analytics and Development	Yes	Yes	Yes	Yes	
18MCE 3E3	Cyber Security	Yes	Yes	Yes	Yes	
18MCE41	Major Project : Phase-II	Yes	Yes	Yes	Yes	
18MCE42	Technical Seminar	Yes				

G G 1	Course Title		NEEDS ADDRESSED						
Course Code		Local	Regional	National	Global				
	M.Tech in Computer Network E	ngineeri	ing						
Link to the relevant document									
	11- MCN-Computer-Network-Engineering	1.pdf (rv	<u>/ce.edu.in)</u>						
18MAT11B	Probability Theory and Linear Algebra	Yes	Yes	Yes	Yes				
18MCN12	Information and Network Security	Yes	Yes	Yes	Yes				
18MCN13	Advances in Computer Networks	Yes	Yes	Yes	Yes				
18HSS14	Professional Skills Development	Yes							
18MCN1A1	Wireless Ad-Hoc and Sensor Networks	Yes	Yes	Yes	Yes				
18MCN1A2	Data Management Essentials	Yes	Yes	Yes	Yes				
18MCE1A3	Applied Cryptography	Yes	Yes	Yes	Yes				
18MCN1B1	Cloud Computing Technology	Yes	Yes	Yes	Yes				
18MCN1B2	Information Coding	Yes	Yes	Yes	Yes				
18MCN1B3	Wireless Network Security	Yes	Yes	Yes	Yes				
18MCN21	Wireless Communication Technologies	Yes	Yes	Yes	Yes				
18MCN22	Advances in Network Management	Yes	Yes	Yes	Yes				
18IM23	Research Methodology	Yes	Yes	Yes	Yes				
18MCN24	Minor Project	Yes							
18MCN2C1	Network Routing and Protocols	Yes	Yes	Yes	Yes				
18MCS2C2	Machine Learning	Yes	Yes	Yes	Yes				
18MCN2C3	Cloud Security	Yes	Yes	Yes	Yes				
18MCN2D1	Internet of Things and Applications	Yes	Yes	Yes	Yes				
18MCN2D2	Advances in Algorithms	Yes	Yes	Yes	Yes				
18MCE2D3	Security Engineering	Yes	Yes	Yes	Yes				
18CS2G01	Business Analytics	Yes	Yes						
18MCN31	High Speed Networks	Yes	Yes	Yes	Yes				
18MCN32	Internship	Yes	Yes	Yes	Yes				
18MCN33	Major Project : Phase-I	Yes	Yes						
18MCE3E1	Software Defined Systems	Yes	Yes	Yes	Yes				
18MCN3E2	Data Storage Technology and Networks	Yes	Yes	Yes	Yes				
18MCE3E3	Cyber Security	Yes	Yes	Yes	Yes				
18MCN41	Major Project : Phase-II	Yes	Yes	Yes	Yes				
18MCN42	Technical Seminar	Yes							
	M.Tech Biotechnology	,							
	Link to the relevant documn 1-4 SEM MTech Biotechnology 2018.p.	nent	edu.in <u>)</u>						
18MAT11A	Applied Mathematics		Yes	Yes	Yes				
18MBT12	Molecular Biology and Genetic Engineering			Yes	Yes				
18MBT13	Computational Genomics and Proteomics		Yes	Yes	Yes				
18MBT1A1	Stem cells and Tissue Engineering			Yes	Yes				

G G 1	G WH		NEEDS ADDRESSED				
Course Code	Course Title	Local	Regional	National	Global		
18MBT1A2	Agricultural Biotechnology and Sustainability		Yes	Yes	Yes		
18MBT1A3	Shell Scripting			Yes	Yes		
18MBT1B1	Human diseases			Yes	Yes		
18MBT1B2	Alternative farming			Yes	Yes		
18MBT1B3	System Biology			Yes	Yes		
18MBT21	Upstream Process Technology			Yes	Yes		
18MBT22	Pharmaceutical Technology			Yes	Yes		
18IM23	Research Methodology		Yes	Yes	Yes		
18MBT2C1	Biomedical Instrumentation and Digital health			Yes	Yes		
18MBT2C2	Crop improvement and molecular breeding			Yes	Yes		
18MBT2C3	Insilico drug design			Yes	Yes		
18MBT2D1	Medical Implant and Devices			Yes	Yes		
18MBT2D2	Food Technology		Yes	Yes	Yes		
18MBT2D3	High Performance Computing			Yes	Yes		
18XX2GXX	Global Elective Group-G			Yes	Yes		
18MBT24	Minor Project			Yes	Yes		
18MBT31	Downstream Process Technology		Yes	Yes	Yes		
18MBT32	Internship			Yes	Yes		
18MBT33	Major Project: Phase I			Yes	Yes		
18MBT3E1	Nanobiotechnology		Yes	Yes	Yes		
18MBT3E2	Biobusiness, Project Management and Economics		Yes	Yes	Yes		
18MBT3E3	Next Generation Sequencing Technology			Yes	Yes		
18MBT41	Major Project: Phase II			Yes	Yes		
18MBT42	Technical Seminar		Yes	Yes	Yes		

## **2021 SCHEME**

<b>Course Code</b>	Course Title		NEEDS A	DDRESSEI	D					
	Course Tiue	Local	Regional	National	Global					
	I YEAR COURSES									
	Link to the relevant document									
	first-year-syllabus-2018-scheme.pdf	(rvce.ed	<u>lu.in)</u>							
21MA11	Multivariable Calculus			Yes	Yes					
21PH12	Engineering Physics			Yes	Yes					
21EE13	Elements of Electrical Engineering			Yes	Yes					
21CV14	Engineering Mechanics			Yes	Yes					
21ME15	IDEA Lab	Yes	Yes	Yes	Yes					
21ME16	Computer Aided Engineering Graphics			Yes	Yes					
21HSE17	Technical English – I	Yes	Yes	Yes	Yes					

G G I	Course Title		NEEDS ADDRESSED				
Course Code		Local	Regional	National	Global		
21HSI18	Indian Knowledge Systems	Yes	Yes	Yes			
21CH12	Engineering Chemistry			Yes	Yes		
21CS13	Programming in C			Yes	Yes		
21ME14	Elements of Mechanical Engineering			Yes	Yes		
21EC15	Elements of Electronics Engineering			Yes	Yes		
21HSY16	Yoga Practice	Yes	Yes	Yes	Yes		
21MA21	Differential Equations & Numerical Methods			Yes	Yes		
21PH22	Engineering Physics			Yes	Yes		
21EE23	Elements of Electrical Engineering			Yes	Yes		
21CV24	Engineering Mechanics			Yes	Yes		
21ME25	IDEA Lab	Yes	Yes	Yes	Yes		
21ME26	Computer Aided Engineering Graphics			Yes	Yes		
21HSE27	Technical English - II	Yes	Yes	Yes	Yes		
21HSI28	Indian Knowledge Systems	Yes	Yes	Yes			
21CH22	Engineering Chemistry			Yes	Yes		
21CS23	Programming in C			Yes	Yes		
21ME24	Elements of Mechanical Engineering			Yes	Yes		
21EC25	Elements of Electronics Engineering			Yes	Yes		
21HSY26	Yoga Practice	Yes	Yes	Yes	Yes		
	AEROSPACE ENGINEER	RING					
	Link to the relevant docur	nent					
	2. AS.pdf (rvce.edu.in) 2. AS 2021 scheme & syllabus FINAL 1.	ndf (nyce	odu in)				
21MA31C*		pui (ivce	<u>.euu.iiij</u>	Yes	Yes		
21MA31C** 21BT32A	Engineering Maths –III						
	Environmental Technology			Yes	Yes		
21AS33	Introduction to Aerospace Engineering			Yes	Yes		
21AS34 21AS35	Thermodynamics Mechanics of Fluids			Yes	Yes Yes		
21AS35 21AS36	Structural Mechanics			Yes Yes	Yes		
21DMA37***	Bridge Course: Mathematics	Yes	Yes				
ZIDMAS/***	Kannada Course: AADALITHA KANNADA	ies	res	Yes	Yes		
21HS38A / 21HS38V	(18HS38A) / VYAVAHARIKA KANNADA (18HS38V)	Yes		Yes	Yes		
21HSAE39A/B/ C/D/E	Ability Enhancement course	Yes	Yes	Yes	Yes		
21ASI310	Summer Internship- I	Yes	Yes	Yes	Yes		
21MA41C*	Engineering Maths- IV	Yes	Yes	Yes	Yes		
21BT42B**	Biology for Engineers / Engineering Materials	Yes	Yes	Yes	Yes		
21AS43	Aerospace Propulsion			Yes	Yes		
21AS44	Aerospace Structures			Yes	Yes		

G G 1	G TW	ı	NEEDS ADDRESSED				
Course Code	Course Title	Local	Regional	National	Global		
21AS45	Fundamentals of Avionics			Yes	Yes		
21AS4AX	Professional Core Elective – Group A			Yes	Yes		
21AS46	Design Thinking Lab			Yes	Yes		
21DCS47	Bridge Course: C Programming		Yes	Yes	Yes		
21HSU48	Universal Human Values and Professional Ethics	Yes	Yes	Yes	Yes		
21HS51	IPRE/FOME (Mandatory Courses)	Yes	Yes	Yes	Yes		
21AS52	Aerodynamics and Flight Performance			Yes	Yes		
21AS53	Finite Element Methods			Yes	Yes		
21XX54	Airport Engineering			Yes	Yes		
21XX55	Design of Fixed Wing Unmanned Aerial Vehicles			Yes	Yes		
21XX55	Similitude And Approximations In Engineering			Yes	Yes		
21XX55	Laser Based Manufacturing			Yes	Yes		
21XX55	Operations Research			Yes	Yes		
21XX55	Advanced Partial Differential Equations			Yes	Yes		
21G5XXA	Fundamentals of Aerospace Engineering			Yes	Yes		
21HS61	IPRE/FOME (Mandatory Courses)	Yes	Yes	Yes	Yes		
21AS62	Gas Dynamics			Yes	Yes		
21AS63	Avionics			Yes	Yes		
21XX64	Professional Core Course 3 (Dept Elective)			Yes	Yes		
21XX65	Professional Core Course 4 (Cluster Elective)			Yes	Yes		
21G6XXA	Open elective course 1 (Global Elective)			Yes	Yes		
21XX64	Computational Fluid Dynamics			Yes	Yes		
21XX64	Vibration Engineering			Yes	Yes		
21XX64	Fundamentals of Satellite System			Yes	Yes		
21XX64	Experimental Stress Analysis			Yes	Yes		
21XX64	Advanced Manufacturing Technology			Yes	Yes		
21XX65	Introduction to Aircraft Design			Yes	Yes		
21G6XXA	Aircraft Systems			Yes	Yes		
21HSI71	Constitution of India	Yes	Yes	Yes			
21AS72	Aircraft Stability and Control			Yes	Yes		
21AS73	Aircraft Systems and Instrumentation			Yes	Yes		
21AS7GX	Professional Core Elective – Group G (Local Elective)			Yes	Yes		
21AS7HX	Professional Core Elective – Group H (Local Elective Domain Specialization)			Yes	Yes		
21G7JXX	Global Elective – Group J (Global Elective Ability Enhancement Courses)			Yes	Yes		
21ASI75	Summer Internship- III	Yes	Yes	Yes	Yes		

Course Code	Course Title		NEEDS ADDRESSED						
		Local	Regional	National	Global				
21AS81	Major Project	Yes	Yes	Yes	Yes				
BIOTECHNOLOGY									
,	Link to the relevant docum	nent							
	3-BT 2021 sehama % syllahus FINAL na	df (muss d	adu in)						
21MA31A*	3. BT 2021 scheme & syllabus FINAL.pc Engineering Maths- III (Equivalent)	ii (ivce.e	<u>:uu.iii)</u>	Yes	Yes				
21BT32A	Environmental Technology			Yes	Yes				
21BT33	Concepts in Biology			105	105				
21BT34	Biochemistry-			Yes	Yes				
21BT35	Bioprocess and calculations			Yes	Yes				
21BT36	Molecular Biology			Yes	Yes				
21BT37	Bridge Course: C Programming			Yes	Yes				
21BT38	Kannada Course: (18HS38A) / (18HS38V)	Yes	Yes	168	1 68				
21HS39		168	168	Yes	Yes				
21MA41	Ability Enhancement course - I Biostatistics				Yes				
21MA41 21BT42B				Yes					
	Biology for Engineers / Engineering Materials			Yes	Yes				
21BT43	Unit Operations			Yes	Yes				
21BT44	Basics of Computer Applications			Yes	Yes				
21BT45	Biophysics and Instrumentation			Yes	Yes				
21BT4AX	Professional Elective – Group A			Yes	Yes				
21BT46	Design Thinking Lab			Yes	Yes				
21DMA47	Bridge Course: Mathematics			Yes	Yes				
HSS48	Universal Human Values and Professional Ethics			Yes	Yes				
21HSI51	Fundamentals of Management & Economics			Yes	Yes				
21BT52	Bioinformatics			Yes	Yes				
21BT53	Genetic Engineering and Applications			Yes	Yes				
21B5XX	Professional Elective - A (Local Elective)			Yes	Yes				
21G5CXX	Nanotechnology			Yes	Yes				
21BT55	Summer Internship - II			Yes	Yes				
21HSI61	Intellectual Property Rights & Entrepreneurship			Yes	Yes				
21BT62	Genomics, Proteomics & Nanotechnology			Yes	Yes				
21BT63	Reaction Engineering			Yes	Yes				
21BT64	Plant and Animal Biotechnology			Yes	Yes				
21C6XX	Professional Elective - C (Local Elective Domain Specialization)			Yes	Yes				
21D6XX	Professional Elective - D (Local Elective Ability Enhancement Courses)								
21G6EXX	Bioinspired Engineering			Yes	Yes				
21BT65	Minor Project			Yes	Yes				

G G 1	G WH		NEEDS ADDRESSED			
Course Code	Course Title	Local	Regional	National	Global	
21HSI71	Constitution of India			Yes	Yes	
21BT72	Microbial Technology			Yes	Yes	
21BT73	Downstream Processing and recovery			Yes	Yes	
21F7XX	Professional Elective - F (Local Elective)			Yes	Yes	
21G7XX	Professional Elective - G (Local Elective)			Yes	Yes	
21H7XX	Computational Genomics			Yes	Yes	
21BT75	Internship Evaluation			Yes	Yes	
21BT81	Major Project			Yes	Yes	
	CHEMICAL ENGINEER	RING				
	Link to the relevant docum	nent				
	4-CH.pdf (rvce.edu.in)				1	
21MA31A*	Integral transforms and advanced numerical methods	Yes	Yes	Yes	Yes	
21BT32	Environmental technology	Yes	Yes	Yes	Yes	
21CH33	Momentum transfer		Yes	Yes	Yes	
21CH34	Particulate Technology		Yes	Yes	Yes	
21CH35	Chemical Process Calculations		Yes	Yes	Yes	
21CH36	Industrial Chemistry		Yes	Yes	Yes	
21DMA37	Bridge course: Mathematics	Yes	Yes	Yes	Yes	
21CH39	Design Thinking Lab	Yes	Yes	Yes	Yes	
21CH310	Summer Internship- I	Yes	Yes	Yes	Yes	
21MA41A*	Statistics and probability fundamentals for machine learning	Yes	Yes	Yes	Yes	
21ME42**	Engineering Materials	Yes	Yes	Yes	Yes	
21CH43	Process Heat Transfer		Yes	Yes	Yes	
21CH44	Chemical Reaction Engineering		Yes	Yes	Yes	
21CH45	Chemical Engineering Thermodynamics		Yes	Yes	Yes	
18CH4A1	Technologies For Clean and Renewable Energy Production		Yes	Yes	Yes	
18CH4A2	Colloids and Surfaces		Yes	Yes	Yes	
18CH4A3	Natural Gas Engineering		Yes	Yes	Yes	
18CH4A4	Application of Spectroscopic Methods in Molecular Structure Determination		Yes	Yes	Yes	
18CH4A5	Introduction to Polymer Science		Yes	Yes	Yes	
21HS46A/46V	Kannada Course	Yes	Yes	Yes	Yes	
21HSAE46A	Ability Enhancement course	Yes	Yes	Yes	Yes	
21DCS47	Bridge Course: C Programming			Yes	Yes	
21HSU48	Universal Human Values and Social Connect Professional Ethics	Yes	Yes	Yes	Yes	
21HS51B	Principles of Management & Economics	Yes	Yes	Yes	Yes	

	Course Title		NEEDS ADDRESSED				
Course Code		Local	Regional	National	Global		
21CH52	Process Dynamics and Control			Yes	Yes		
21CH53	Design of Water Systems			Yes	Yes		
21CH54	Mass Transfer-I			Yes	Yes		
21CH55B1	Heterogeneous Reaction Systems			Yes	Yes		
21CH55B2	Pilot Plant and Scale up Studies			Yes	Yes		
21CH55B3	Design of Piping Systems			Yes	Yes		
21CH55C4	Chemical Plant Utilities			Yes	Yes		
21CH56C1	Energy Conversion Technologies			Yes	Yes		
21CH56C2	Petroleum Technology			Yes	Yes		
21CH56C3	Food Packaging Technology			Yes	Yes		
21CH56C4	Nanotechnology, Science and Applications			Yes	Yes		
21CH56C5	Design, Technology and Innovation			Yes	Yes		
21HS61A	Intellectual Property Rights & Entrepreneurship		Yes	Yes	Yes		
21CH62	Process Simulation and Modeling			Yes	Yes		
21CH63	Mass Transfer-II		Yes	Yes	Yes		
21CH64D1	Food Engineering		Yes	Yes	Yes		
21CH64D2	Fuel Cell Technology		Yes	Yes	Yes		
21CH64D3	Process Engineering and Economics		Yes	Yes	Yes		
21CH64D4	Energy Storage Technology			Yes	Yes		
21CH65E1	Bioenergy Technology			Yes	Yes		
21CH65E2	Hydrogen Technology			Yes	Yes		
21IE6F1	Industrial Safety and Risk Management			Yes	Yes		
	COMPUTER SCIENCE AND ENG	SINEER	RING				
	Link to the relevant docum 5. CS 2021 SCHEME SYLLABUS FINAL compre 5-CS.pdf (rvce.edu.in)		rvce.edu.ir	<u>ı)</u>			
21MA31A*	Linear Algebra, Integral Transforms and Number Theory (Common to CS & IS)			Yes	Yes		
21BT32A**	Environmental Technology	Yes	Yes	Yes	Yes		
21IS33	Data Structures and Applications (Common to CS & IS)			Yes	Yes		
21CS34	Foundations of Computer Systems Design			Yes	Yes		
21CS35	Operating Systems (Common to CS, IS & AI)			Yes	Yes		
21CS36	Discrete Mathematical Structures (Common to CS, IS & AI)			Yes	Yes		
21DCS37	Bridge Course: C Programming			Yes	Yes		
21HS38A	Kannada Course: AADALITHA KANNADA	Yes	Yes				
21HS38V	VYAVAHARIKA KANNADA	Yes	Yes				
21HSAE39A	Ability Enhancement course	Yes	Yes	Yes	Yes		
21CSI310	Summer Internship- I	Yes	Yes	Yes	Yes		

Course Code	Course Title	NEEDS ADDRESSED			
		Local	Regional	National	Global
21MA41A	Statistics and Probability for Data Science			Yes	Yes
21BT42B	Bioinspired Engineering			Yes	Yes
21CS43	Design And Analysis of Algorithms (Common to CS, IS & AI)			Yes	Yes
21CS44	Microcontrollers and Embedded Systems			Yes	Yes
21CS45	Computer Networks (Common to CS, IS & AI)			Yes	Yes
21CS4AX	Professional Core Elective – Group A			Yes	Yes
21CS4A1	Object Oriented Analysis and Design			Yes	Yes
21CS4A2	Multi-core Computer Architecture – Storage and interconnects			Yes	Yes
21CS4A3	Introduction To Haskell Programming			Yes	Yes
21CS46	Design Thinking Lab	Yes	Yes	Yes	Yes
21DMA47	Bridge Course Mathematics			Yes	Yes
21HSU48	Universal Human Values and Professional Ethics	Yes	Yes	Yes	Yes
21CS49	Object Oriented Programming Using JAVA (Common to CS & AI)			Yes	Yes
	Link to the relevant docum 7.EC.pdf (rvce.edu.in)				
21MA31B	Linear algebra, Integral transforms and Fourier series	Yes	Yes	Yes	Yes
21BT32A	Environmental Technology			Yes	Yes
21EC33	Analog Microelectronic Circuits	Yes	Yes	Yes	Yes
21EC34	Analysis and Design of Digital Circuits (Common with EC/EE/EI/ET)	Yes	Yes	Yes	Yes
21EC35	Network Analysis and Control Systems			Yes	Yes
21EC36	Digital System Design Using Verilog HDL			Yes	Yes
21DMA37	Bridge Course: Mathematics			Yes	Yes
21HS38A /V	AADALITHA KANNADA			Yes	Yes
21HS39	Ability Enhancement course			Yes	Yes
21ECI310	Summer Internship-1			Yes	Yes
21MA41A	Engineering Maths- IV *			Yes	Yes
21EC42	Engineering Materials			Yes	Yes
21EI43	Microcontrollers & Programming			Yes	Yes
21EC44	Signals and Systems			Yes	Yes
21EC45	Electromagnetic Fields and Applications	Yes	Yes	Yes	Yes
21XX4AX	Professional Elective – Group A MOOC	Yes	Yes	Yes	Yes

		NEEDS ADDRESSED				
Course Code	Course Title	Local	Regional	National	Global	
21XX47	Design Thinking Lab			Yes	Yes	
21DCS48	Bridge Course: C Programming***			Yes	Yes	
21HS49	Universal Human Values and Social Connect			Yes	Yes	
	CIVIL ENGINEERING	3				
	Link to the relevant docum 6-CV.pdf (rvce.edu.in)	nent				
21MA31C*	Integral Transforms, Optimization and Numerical Techniques			Yes	Yes	
21BT32	Environmental Technology	Yes	Yes	Yes	Yes	
21CV33	Mechanics of Materials			Yes	Yes	
21CV34	Surveying			Yes	Yes	
21CV35	Concrete Technology			Yes	Yes	
21CV36	Python Programming			Yes	Yes	
21DMA37	Bridge Course: Mathematics			Yes	Yes	
21CV39	Design Thinking Lab			Yes	Yes	
21CVI310	Summer Internship- I	Yes	Yes	Yes	Yes	
21MA41	Statistics and Probability for Data Science			Yes	Yes	
21CV42	Civil Engineering Materials	Yes	Yes	Yes	Yes	
21CV43	Mechanics of Fluids			Yes	Yes	
21CV44	Building Planning & Drawing			Yes	Yes	
21CV45	Structural analysis			Yes	Yes	
21CV4AX	Professional Core Elective – Group A			Yes	Yes	
21HS46A	AADALITHA KANNADA	Yes	Yes	Yes	Yes	
21HSAE46A	Ability Enhancement course			Yes	Yes	
21DCS47	Bridge Course: C Programming			Yes	Yes	
21HSU48	Universal Human Values and Professional Ethics			Yes	Yes	
	ELECTRONICS AND INSTRUMENTATI	ON EN	GINEERIN	G		
	Link to the relevant docum  9-EI.pdf (rvce.edu.in)  9. EI 2021 SCHEME SYLLABUS FINAL compres		(rvce.edu.in	)		
21MA31B*	Linear Algebra, Integral Transforms and Fourier Series	Yes			Yes	
21BT32A	Environmental Technology	Yes			Yes	
21EE33	Linear Integrated Circuits (Common with EE/EI/ET)			Yes	Yes	
21EC34	Analysis and Design of Digital Circuits (Common with EC/EE/EI/ET)			Yes	Yes	
21EI35	Data Structures using C			Yes	Yes	
21EI36	Control Engineering			Yes	Yes	

G G 1	Course Title		NEEDS ADDRESSED				
Course Code		Local	Regional	National	Global		
21DMA37	Bridge Course Mathematics			Yes	Yes		
21HS38A/ V	Kannada Course	Yes					
21HSAE39A	Ability Enhancement course						
21EII310	Summer Internship- I						
21MA41A	Statistics and Probability for Data Science	Yes		Yes	Yes		
21EC42**	Materials for Electronics Engineering			Yes	Yes		
21EI43	Microcontroller & Programming			Yes	Yes		
21EC44	Signals & Systems (Common with EC/EI)			Yes	Yes		
21EI45	Transducers and Actuators			Yes	Yes		
22EI4A1	Data Science for Engineers			Yes	Yes		
22EI5A2	Programming, Data structures and algorithms using Python			Yes	Yes		
22EI5A3	Introduction to Machine Learning			Yes	Yes		
22EI5A4	Hardware modelling using Verilog			Yes	Yes		
22EI5A5	Power Plant Engineering			Yes	Yes		
21DCS47***	Bridge Course: C Programming			Yes	Yes		
21HSU48	Universal Human Values and Professional Ethics			Yes	Yes		
21HS51A	Intellectual Property Rights & Entrepreneurship			Yes	Yes		
21EI52	Automatic Process Control and Virtual Instrumentation			Yes	Yes		
21EC53	Digital VLSI Design			Yes	Yes		
21EC54	Embedded System Design			Yes	Yes		
21EI55B1	MEMS & Applications			Yes	Yes		
21EI55B2	Advance Control Systems			Yes	Yes		
21EI55B3	Data Communication for Instrumentation			Yes	Yes		
21EI55B4	Bio Potentials & Medical devices			Yes	Yes		
21EI56C1	Cloud Computing and Distributed Systems			Yes	Yes		
21EI56C2	User-centric Computing for Human-Computer Interaction			Yes	Yes		
21EI56C3	Mechatronics			Yes	Yes		
21EI56C4	VLSI Signal Processing			Yes	Yes		
21EI56C5	Health Research and Fundamentals			Yes	Yes		
21EII57	Summer Internship- II			Yes	Yes		
21HS61B	Foundations of Management & Economics			Yes	Yes		
21EI62	PLC and SCADA Systems			Yes	Yes		
21EI63	Digital Signal Processing			Yes	Yes		
21EI64D1	Automation in Industry 4.0			Yes	Yes		
21EI64D2	An Introduction to the Internet of Things			Yes	Yes		

Course Code	Course Title	NEEDS ADDRESSED					
Course Code		Local	Regional	National	Global		
21EI64D3	Virtual & Augmented Reality			Yes	Yes		
21EI64D4	Application-Specific Integrated Circuit (ASIC) Design			Yes	Yes		
	ELECTRICAL AND ELECTRONICS	ENGIN	EERING				
	Link to the relevant document  8-EE.pdf (rvce.edu.in)  8. EE 2021 scheme & syllabus FINAL_compressed-1.pdf (rvce.edu.in)						
21MA31B	Linear Algebra, Integral Transforms and Fourier Series	Yes					
21BT32A	Environmental Technology	Yes					
21EE33	Linear Integrated Circuits			Yes	Yes		
21EC34	Analysis and Design of Digital Circuits			Yes	Yes		
21EE35	Network Analysis			Yes	Yes		
21EE36	Measurement and Transducers			Yes	Yes		
21DMA37	Bridge Course: Mathematics	Yes					
21HS38	Kannada Course		Yes				
21HSAE39	Ability Enhancement course	Yes					
21EEI310	Summer Internship- I			Yes			
21MA41A	Statistics and Probability for Data Science	Yes					
21EC42	Materials for Electronics Engineering			Yes	Yes		
21EI43	Microcontroller & Programming			Yes	Yes		
21EE44	Power Electronics			Yes	Yes		
21ET45	Principles of Electromagnetic Fields			Yes	Yes		
21EE46	Design Thinking Lab	Yes					
21DCS47	Bridge Course: C Programming	Yes					
21HSU48	Universal Human Values and Professional Ethics			Yes			
21HS51A	Intellectual Property Rights & Entrepreneurship			Yes			
21EE52	Electrical Machines			Yes	Yes		
21EE53	Control Systems			Yes	Yes		
21EE54	Power Transmission & Distribution			Yes	Yes		
21EE55B1	Fuzzy Logic Control and Applications			Yes	Yes		
21EE55B2	VLSI Circuit and Design			Yes	Yes		
21EE55B3	Computer Communication and Networking			Yes	Yes		
21EE55B4	Algorithms and data structure with C++			Yes	Yes		
21EEI57	Summer Internship-II			Yes	Yes		
21HS61B	Foundations of Management & Economics			Yes			
21EE62	Solar and Wind Energy Systems			Yes	Yes		
21EE63	Signal Systems and Processing			Yes	Yes		
21EE6D1	Electric Vehicle - Power Train & Drives			Yes	Yes		

G G 1	Course Title		NEEDS ADDRESSED				
Course Code		Local	Regional	National	Global		
21EE6D2	High Voltage Engineering			Yes	Yes		
21EE6D3	Special Electrical Machines			Yes	Yes		
21EE6D4	Electrical Power Utilization and Illumination			Yes	Yes		
21EE65E1	Smart Grid Technology			Yes	Yes		
21EE65E2	Modern Control Theory			Yes	Yes		
	INDUSTRIAL ENGINEERING AND	MANAG	EMENT	•			
	Link to the relevant docu 11-IM.pdf (rvce.edu.in						
21MA11	Multivariable Calculus	1			Yes		
21PH12	Engineering Physics			Yes	Yes		
21EE13	Elements of Electrical Engineering			Yes	Yes		
21CV14	Engineering Mechanics			Yes	Yes		
21ME15	IDEA Lab	Yes	Yes	Yes	Yes		
21ME16	Computer Aided Engineering Graphics	103	103	Yes	Yes		
21HSE17	Technical English – I			Yes	Yes		
21HSI18	Indian Knowledge Systems	Yes	Yes	Yes	103		
21MA11	Multivariable Calculus	103	103	103	Yes		
21PH12	Engineering Physics			Yes	Yes		
21EE13	Elements of Electrical Engineering			Yes	Yes		
21CV14	Engineering Mechanics			Yes	Yes		
21ME15	IDEA Lab	Yes	Yes	Yes	Yes		
21ME16	Computer Aided Engineering Graphics	103	103	Yes	Yes		
21HSE17	Technical English – I			Yes	Yes		
21HSI18	Indian Knowledge Systems	Yes	Yes	Yes	103		
21MA31C	Integral Transforms, Optimization And Numerical Techniques		103	100	Yes		
21IM32	Engineering Materials and Mechanics				Yes		
21IM33	Work Systems Design			Yes	Yes		
21IM34	Manufacturing Processes			Yes	Yes		
21DMA37	Bridge Course Mathematics				Yes		
21IM39	Design Thinking Lab	Yes	Yes	Yes	Yes		
21IMI310	Summer Internship - I	Yes	Yes	Yes	Yes		
21IM41	Statistics for Data Analytics	Yes	Yes	Yes	Yes		
21BT42A	Environmental Technology	Yes	Yes	Yes	Yes		
21IM43	CAD/CAM and Robotics			Yes	Yes		
21IM44	Marketing Management	Yes	Yes	Yes	Yes		
21IM45	Financial Accounting and Management			Yes	Yes		
21IM4A1	Data Base Management System				Yes		
21IM4A2	Foundation Course in Managerial Economics			Yes	Yes		

G G 1	Course Title	NEEDS ADDRESSED				
Course Code		Local	Regional	National	Global	
21IM4A3	User-centric Computing for Human-Computer Interaction			Yes	Yes	
21IM4A4	Mechanical Measurement systems			Yes	Yes	
21IM4A5	Mechanics of Machining				Yes	
21IM4A6	Programming, Data Structures and Algorithms Using Python				Yes	
21IM4A7	Managing Services	Yes	Yes	Yes	Yes	
21IM4A8	Knowledge Management			Yes	Yes	
21IM4A9	Organization Development and Change in 21st century		Yes	Yes	Yes	
21IM4A10	Managing change in organizations	Yes	Yes	Yes	Yes	
21HS46A / 21HS46V	Kannada Course: Aadalitha Kannada / Vyavaharika Kannada	Yes	Yes			
21HSAE39A	National Service Scheme(NSS)	Yes	Yes	Yes	Yes	
21HSAE39B	National Cadet Corps(NCC)	Yes	Yes	Yes	Yes	
21HSAE39C	Physical Education	Yes	Yes	Yes	Yes	
21HSAE39D 1 / 2 / 3	Music/Dance/ Theatre	Yes	Yes	Yes	Yes	
21HSAE39E 1 / 2	Art /Photography	Yes	Yes	Yes	Yes	
21DCS47	Bridge Course: C Programming				Yes	
21HSU48	Universal Human Values and Professional Ethics	Yes	Yes	Yes	Yes	
	INFORMATION SCIENCE AND EN	IGINE	ERING			
	Link to the relevant docum  12-IS.pdf (rvce.edu.in)  12. IS 2021 SCHEME SYLLABUS FINAL.p		edu.in)			
21BT32A**	Environmental Technology			Yes	Yes	
21IS33	Data Structure and Applications			Yes	Yes	
21IS34	Digital Design and Computer Organization			Yes	Yes	
21CS35	Operating Systems			Yes	Yes	
21CS36	Discrete Mathematical Structures			Yes	Yes	
21DCS37***	Bridge Course: C Programming			Yes	Yes	
21HS38A / 21HS38V	Kannada Course: AADALITHA KANNADA / VYAVAHARIKA KANNADA			Yes	Yes	
21HS39	Ability Enhancement course			Yes	Yes	
21ISI310	Summer Internship- I			Yes	Yes	
21MA41	Statistics and Probability for Data Science			Yes	Yes	
21BT42B	Bioinspired Engineering			Yes	Yes	
21CS43	Design and Analysis of Algorithms (Common to CS, IS & AI)			Yes	Yes	

	Course Title	NEEDS ADDRESSED				
Course Code		Local	Regional	National	Global	
21IS44	Theory of Computation			Yes	Yes	
21CS45	Computer Networks (Common to CS, IS & AI)			Yes	Yes	
21IS4AX	Professional Elective – Group A			Yes	Yes	
21IS46	Design Thinking Lab			Yes	Yes	
21DMA47	Bridge Course: Mathematics ***			Yes	Yes	
21HSU48	Universal Human Values and Professional Ethics	Yes	Yes	Yes	Yes	
21IS49	Programming in JAVA			Yes	Yes	
21HS51A	Intellectual Property Rights & Entrepreneurship			Yes	Yes	
21AI52	Artificial Intelligence and Machine Learning (Common to CS, IS & AI)			Yes	Yes	
21CS53	Introduction To Database Systems (Common to CS & IS)			Yes	Yes	
21IS54	Cryptography and Network Security			Yes	Yes	
21IS55BX	Professional Core Elective-I (Group-B)			Yes	Yes	
21IS56CX	Professional Core Elective-II (Group C)			Yes	Yes	
21ISI57	Summer Internship- II			Yes	Yes	
21IS55B1	Management Information Systems			Yes	Yes	
21CS55B2	Internet of Things (Common to CS & IS)			Yes	Yes	
21CS55B3	Advanced Algorithms (Common to CS & IS)			Yes	Yes	
21IS55B4	Natural Language Processing (Common to CS & IS)			Yes	Yes	
21IS56C1	Data Science For Engineers			Yes	Yes	
21IS56C2	Programming, Data Structures And Algorithms Using Python			Yes	Yes	
21IS56C3	Google Cloud Computing Foundations	Yes	Yes	Yes	Yes	
21IS56C4	Introduction To Machine Learning	Yes	Yes	Yes	Yes	
21IS56C5	Big Data Computing			Yes	Yes	
21HS61B	Principles of Management & Economics			Yes	Yes	
21IS62	Software Engineering (Common to CS & IS)	Yes	Yes	Yes	Yes	
21CS63	Compiler Design (Common to CS & IS)			Yes	Yes	
21IS64DX	Professional Core Elective-III (Group – D)			Yes	Yes	
21IS65EX	Professional Core Elective (Cluster Elective) (Group- E) (TWO Courses under Each Program)			Yes	Yes	
21IE66FX	Institutional Electives – I (Group F)			Yes	Yes	

a a 1	Course Title	V	NEEDS ADDRESSED				
Course Code		Local	Regional	National	Global		
21IS64D1	Information Retrieval			Yes	Yes		
21IS64D2	Block Chain Technology (Common to CS & IS Board)			Yes	Yes		
21CS64D3	Web Programming (Common to CS & IS Board)			Yes	Yes		
21IS64D4	Mobile Application Development	Yes	Yes	Yes	Yes		
21IS65E1	Human Computer Interaction			Yes	Yes		
21IS65E2	Cloud Computing			Yes	Yes		
	MECHANICAL ENGINER	ERING					
	Link to the relevant docum						
012 571 570 5	13-ME.pdf (rvce.edu.in)			1	**		
21ME15/25	IDEA Lab				Yes		
21ME16/26	Computer Aided Engineering Graphics				Yes		
21ME14/24	Elements of Mechanical Engineering				Yes		
21ME32*	Engineering Materials			Yes			
21ME33	Solid Mechanics				Yes		
21ME34	Engineering Thermodynamics				Yes		
21ME35	Metrology and Machine Drawing				Yes		
21ME36	Python for Mechanical Engineers			Yes			
21ME39	Design Thinking Lab						
21MEI310	Summer Internship-		Yes				
21ME43	Theory of Machines		Yes				
21ME44	Fluid Mechanics			Yes			
21ME45	Manufacturing Technology				Yes		
	ARTIFICIAL INTELLIGENCE / MACH	HINE L	EARNING				
	Link to the relevant docum <u>AI.pdf</u>	nent					
21MA11	Multivariable Calculus			Yes	Yes		
21PH12	Engineering Physics			Yes	Yes		
21EE13	Elements of Electrical Engineering			Yes	Yes		
21CV14	Engineering Mechanics			Yes	Yes		
21ME15	IDEA Lab	Yes	Yes	Yes	Yes		
21ME16	Computer Aided Engineering Graphics			Yes	Yes		
21HSE17	Technical English – I	Yes	Yes	Yes	Yes		
21HSI18	Indian Knowledge Systems	Yes	Yes	Yes			
21CH12	Engineering Chemistry			Yes	Yes		
21CS13	Programming in C			Yes	Yes		
21ME14	Elements of Mechanical Engineering			Yes	Yes		

	Course Title	NEEDS ADDRESSED				
Course Code		Local	Regional	National	Global	
21EC15	Elements of Electronics Engineering			Yes	Yes	
21HSY16	Yoga Practice	Yes	Yes	Yes	Yes	
21MA21	Differential Equations & Numerical Methods			Yes	Yes	
21PH22	Engineering Physics			Yes	Yes	
21EE23	Elements of Electrical Engineering			Yes	Yes	
21CV24	Engineering Mechanics			Yes	Yes	
21ME25	IDEA Lab	Yes	Yes	Yes	Yes	
21ME26	Computer Aided Engineering Graphics			Yes	Yes	
21HSE27	Technical English - II	Yes	Yes	Yes	Yes	
21HSI28	Indian Knowledge Systems	Yes	Yes	Yes		
21CH22	Engineering Chemistry			Yes	Yes	
21CS23	Programming in C			Yes	Yes	
21ME24	Elements of Mechanical Engineering			Yes	Yes	
21EC25	Elements of Electronics Engineering			Yes	Yes	
21HSY26	Yoga Practice	Yes	Yes	Yes	Yes	
21MA31D	Mathematics for AI and ML			Yes	Yes	
21BT32A**	Environmental Technology			Yes	Yes	
21AI33	Data Structues and Data Analysis			Yes	Yes	
21AI34	Foundations of Cyber Pysical Systems			Yes	Yes	
21CS35	Operating Systems (Common to CS, IS & AI)			Yes	Yes	
21CS36	Discrete Mathematical Structures (Common to CS, IS & AI)			Yes	Yes	
21DCS37	Bridge Course: C Programming			Yes	Yes	
21AI39	Design Thinking Lab	Yes	Yes	Yes	Yes	
21AII310	Summer Internship- I	Yes	Yes	Yes	Yes	
21AI41	Statistics for Data Science			Yes	Yes	
21BT42B	Bioinspired Engineering			Yes	Yes	
21CS43	Design And Analysis of Algorithms (Common to CS, IS & AI)			Yes	Yes	
21AI44	Data Base Management Systems			Yes	Yes	
21CS45	Computer Networks (Common to CS, IS & AI)			Yes	Yes	
21CS4AX	Professional Core Elective – Group A			Yes	Yes	
21AI4A1	Object Oriented Analysis and Design			Yes	Yes	
21AI4A2	Theory of Computation			Yes	Yes	
21AI4A3	Embedded System Design With ARM			Yes	Yes	
21AI4A4	Modern Algebra			Yes	Yes	
21AI4A5	Computer Graphics			Yes	Yes	
21AI4A6	Operations Research			Yes	Yes	
21HS46A	Kannada Course: AADALITHA KANNADA	Yes	Yes			

	G THU		NEEDS ADDRESSED				
<b>Course Code</b>	Course Title	Local	Regional	National	Global		
21HS46V	VYAVAHARIKA KANNADA	Yes	Yes				
21HSAE46A/B/ C/D/E	Ability Enhancement course	Yes	Yes	Yes	Yes		
21DMA47	Bridge Course:Mathematics			Yes	Yes		
21HSU48	Universal Human Values and Professional Ethics	Yes	Yes	Yes	Yes		
21CS49	Object Oriented Progamming Using Java			Yes	Yes		
	MASTER OF COMPUTER APP	LICATION	ONS				
	Link to the relevant docu	ment					
	1MCA2020SCHEMESYLLABUSFINAL compre	ssed.pdf	(rvce.edu.in	<u>)</u>			
20MCA21	Software Engineering	Yes					
20MCA22	Data Structures & Algorithms	Yes					
20MCA23	Database Management System	Yes					
20MCA241	Advanced Computer Networks	Yes					
20MCA242	Network Security			Yes	Yes		
20MCA243	Internet of Things	Yes					
20MCA251	Machine Learning	Yes					
20MCA252	Big Data Analytics	Yes					
20MCA253	Natural Language Processing	Yes					
20MCA261	PHP based Software Solutions	Yes					
20MCA262	Java based Software Solutions	Yes					
20MCA263	JavaScript based Software Solutions	Yes					
20MCA27	Design-Thinking			Yes	Yes		
20MCA31	Project Management			Yes			
20MCA32	Modern Application Development			Yes			
20MCA331	Cloud Computing			Yes			
20MCA332	Cyber Security			Yes	Yes		
20MCA333	Web of Things			Yes	Yes		
20MCA341	Artificial Intelligence						
20MCA342	Augmented and Virtual Reality			Yes			
20MCA343	Deep Learning	Yes					
20MCA351	PHP Framework based Full Stack Software Solutions	Yes					
20MCA352	Java Framework based Full Stack Software Solutions	Yes					
20MCA353	JavaScript Framework based Full Stack Software Solutions	Yes					
20MCA36	Minor Project	Yes					
20MCA41	Major Project	Yes					
20MCA42	Technical Seminar	Yes					



## **2022 SCHEME**

Course Code	Corres Title		NEEDS A	DDRESSE	D
Course Code	Course Title	Local	Regional	National	Global
	I YEAR COURSES				
	Link to the relevant docum				
	FIRST YEAR Final book-new course codes_comp	ressed.p	odf (rvce.edu	<u>ı.in)</u>	
22MA11B	Fundamentals of Linear Algebra, Calculus and Differential Equations				Yes
22PHY12B	Classical Physics for Engineers			Yes	Yes
22ME13	Elements of Mechanical Engineering			Yes	Yes
22ES14X	Engineering Science Course-I			Yes	Yes
22EM1XX	Emerging Technology Course-II			Yes	Yes
22HSE16	Communicative English-I			Yes	Yes
22HSAK17/ 22HSVK17	Adalitha Kannada / Vyavaharika Kannada	Yes	Yes		
22ME18	IDEA LAB (Idea Development, Evaluation & Application)	Yes	Yes	Yes	Yes
22MA21B	Vector Calculus and Computational Methods				Yes
22CHY22D	Chemistry of Engineering materials			Yes	Yes
22MECD23	Computer Aided Engineering Graphics				Yes
22ES24X	Engineering Science Course-II			Yes	Yes
22PL25X	Programming Language Course				Yes
22EM2XX	Emerging Technology Course-II			Yes	Yes
22HSI27	Fundamentals of Indian Constitution	Yes	Yes	Yes	
22HSY28	Scientific Foundations of Health-Yoga Practice	Yes	Yes	Yes	Yes
	AEROSPACE ENGINEER	ING			
	Link to the relevant docum	ent			
	2. AS 2022 SCHEME AND SYLLABUS FINAL comp	ressed.	odf (rvce.edu	<u>u.in)</u>	
22MA31 A/B/C/D*	Engineering Maths- III	Yes	Yes	Yes	Yes
22CV32/22ME 32/22BT32	Environment & Sustainability / Engineering Materials / Bioinspired Engineering	Yes	Yes	Yes	Yes
22AS33	Thermodynamics			Yes	Yes
22AS34	Mechanics of Fluids			Yes	Yes
22AS35	Structural Mechanics			Yes	Yes
22AS36	Bridge Course: C Programming	Yes	Yes	Yes	Yes
22HSAE39 A/B/C/D/E ***	Ability Enhancement course	Yes	Yes	Yes	Yes
22XXI310	Summer Internship- I	Yes	Yes	Yes	Yes
22MA41/22CV 41	Applied Mathematics	Yes	Yes	Yes	Yes

G G 1	G TV	NEEDS A		ADDRESSED	
Course Code	Course Title	Local	Regional	National	Global
22CV42/22ME 42/ 22BT42	Environment & Sustainability / Engineering Materials / Bioinspired Engineering	Yes	Yes	Yes	Yes
22AS43	Aerospace Propulsion			Yes	Yes
22AS44	Aerospace Structures			Yes	Yes
22AS45	Fundamentals of Avionics			Yes	Yes
22AS4AX	Professional Core Elective – Group A			Yes	Yes
22AS46	Design Thinking Lab	Yes	Yes	Yes	Yes
22DCS47***	Bridge Course: Mathematics	Yes	Yes	Yes	Yes
22HSU48	Universal Human Values and Professional Ethics	Yes	Yes	Yes	Yes
	BIO TECHNOLOGY				
	Link to the relevant docum  3. BT 2022 SCHEME AND SYLLABUS FINAL comp		odf (rvce.edu	<u>u.in)</u>	
22MA31B	Engineering Maths- III			Yes	Yes
22CV32/22ME 32/22BT32	Environment & Sustainability / Engineering Materials / Bio Safety Standards and Ethics			Yes	Yes
22BT33	Cell and Molecular Biology			Yes	Yes
22BT34	Unit Operations			Yes	Yes
22BT35	Thermodynamics and Bioanalytical Techniques			Yes	Yes
22HSAE36X ***/ 22BTDT36	ABILITY ENHANCEMENT COURSE / DESIGN THINKING LAB			Yes	Yes
22BTI37	Summer Internship- I			Yes	Yes
22DCS38**	Bridge Course: C Programming			Yes	Yes
22BT41	Biostatistics			Yes	Yes
22CV42/22ME 42/ 22BT42	Environment & Sustainability / Engineering Materials / Bio Safety Standards and Ethics			Yes	Yes
22BT43	Programming for Computational Biology			Yes	Yes
22BT44	Biochemistry			Yes	Yes
22BT45	Bioprocess Calculations			Yes	Yes
22BT46AX	Professional Core Course 3 – Group A			Yes	Yes
22BTDT47	Design Thinking Lab			Yes	Yes
22HSU48	Universal Human Values			Yes	Yes
22DMA49***	Bridge Course: Mathematics			Yes	Yes
	CHEMICAL ENGINEERI	NG			
	Link to the relevant docum Microsoft Word - 22 scheme Syllabi-3&4 Semeste		ocx (rvce.ed	u.in <u>)</u>	
22MA31B	Engineering Maths- III			Yes	Yes
22CV32/42 22ME32/42 22BT32/42	Environment & Sustainability / Material Science for Engineers / Bio Safety Standards and Ethics	Yes	Yes	Yes	Yes

	Course Title		NEEDS ADDRESSED				
Course Code		Local	Regional	National	Global		
22CH33	Momentum Transfer		Yes	Yes	Yes		
22CH34	Particulate Technology		Yes	Yes	Yes		
22CH35	Chemical Process Calculations		Yes	Yes	Yes		
22HSAE36X ***	ABILITY ENHANCEMENT COURSE	Yes	Yes	Yes	Yes		
22DCS38**	Bridge Course: C Programming		Yes	Yes	Yes		
22MA41	Probability theory and Linear Programming	Yes	Yes	Yes	Yes		
22CV32/42 22ME32/42 22BT32/42	Environment & Sustainability / Material Science for Engineers / Bio Safety Standards and Ethics	Yes	Yes	Yes	Yes		
22CH43	Process Heat Transfer		Yes	Yes	Yes		
22CH44	Chemical Reaction Engineering		Yes	Yes	Yes		
22CH45	Chemical Engineering Thermodynamics		Yes	Yes	Yes		
22CH46A1	Technologies For Clean and Renewable Energy Production			Yes	Yes		
22CH46A2	Colloids and Surfaces			Yes	Yes		
22CH46A3	Natural Gas Engineering			Yes	Yes		
22CH46A4	Application of Spectroscopic Methods in Molecular Structure Determination			Yes	Yes		
22CH46A5	Introduction to Polymer Science			Yes	Yes		
22CHDT47	DESIGN THINKING LAB	Yes	Yes	Yes	Yes		
22HSU48	Universal Human Values	Yes	Yes	Yes	Yes		
22DMA49***	Bridge Course: Mathematics	Yes	Yes	Yes	Yes		
	ELECTRONICS AND COMMUNICATION	N ENG	INEERING	j			
	Link to the relevant docum  FIRST YEAR Final book-new course codes comp  7.EC.pdf		odf (rvce.edu	ı.in <u>)</u>			
22MA11A	Fundamentals of Linear Algebra, Calculus and Numerical Methods			Yes	Yes		
22MA11B	Fundamentals of Linear Algebra, Calculus and Differential Equations			Yes	Yes		
22PHY12A	Condensed Matter Physics for Engineers	Yes	Yes	Yes	Yes		
22PHY12B	Classical Physics for Engineers			Yes	Yes		
22HSE16	Communicative English-I	Yes	Yes	Yes	Yes		
22HSSK17/ 22HSBK17	Samskruthika Kannada /Balake Kannada			Yes	Yes		
22ME18	IDEA LAB (Idea Development, Evaluation & Application)			Yes	Yes		
22EC13	Basic Electronics			Yes	Yes		
22EE13	Elements of Electrical Engineering			Yes	Yes		
22ME13	Elements of Mechanical Engineering			Yes	Yes		

	Course Title		NEEDS ADDRESSED				
Course Code		Local	Regional	National	Global		
22ES14A	Introduction to C Programming			Yes	Yes		
22ES14B	Elements of Civil Engineering			Yes	Yes		
22ES14C	Principles of Electronics Engineering	Yes	Yes	Yes	Yes		
22ES14D	Basics of Electrical Engineering	Yes	Yes	Yes	Yes		
22ES14E	Fundamentals of Mechanical Engineering			Yes	Yes		
22EM101	Introduction to Internet of Things			Yes	Yes		
22EM102	Introduction to Drone Technology			Yes	Yes		
22EM103	Bioinspired Engineering			Yes	Yes		
22EM104	Global Climate Change			Yes	Yes		
22EM105	Elements of Blockchain Technology			Yes	Yes		
22EM106	Introduction to Cyber Security			Yes	Yes		
22EM107	Green Buildings	Yes	Yes	Yes	Yes		
22EM108	Infrastructure for Smart Cities	Yes	Yes	Yes	Yes		
22EM109	Fundamental of Nanoscience & Technology			Yes	Yes		
22EM110	Fundamentals of Semiconductor Devices			Yes	Yes		
22EM111	Introduction to Embedded Systems			Yes	Yes		
22EM112	Renewable Energy Sources			Yes	Yes		
22EM113	Fundamentals of Sensor Technology			Yes	Yes		
22EM114	Human factors in Engineering			Yes	Yes		
22EM115	Digital Humanities			Yes	Yes		
22EM116	Smart materials and Systems			Yes	Yes		
22EM117	Elements of Industry 4.0			Yes	Yes		
22MA11C	Fundamentals of Linear Algebra, Calculus And Statistics	Yes	Yes	Yes	Yes		
22MA11D	Applied Mathematics – I			Yes	Yes		
22CHY12A	Chemistry Of Smart Materials and Devices	Yes	Yes	Yes	Yes		
22CHY12B	Engineering And Environmental Chemistry	Yes	Yes	Yes	Yes		
22MED13	Computer Aided Engineering Graphics			Yes	Yes		
22HSE16	Communicative English-I			Yes	Yes		
22HSI17	Fundamentals of Indian Constitution			Yes	Yes		
22HSYI8	Scientific Foundations of Health-Yoga Practice			Yes	Yes		
22ES14A	Introduction to C Programming			Yes	Yes		
22ES14B	Elements of Civil Engineering			Yes	Yes		
22ES14C	Principles of Electronics Engineering			Yes	Yes		
22ES14D	Basics of Electrical Engineering			Yes	Yes		
22ES14E	Fundamentals of Mechanical Engineering	Yes	Yes	Yes	Yes		
22PL15A	Introduction to Python programming	Yes	Yes	Yes	Yes		
22PL15B	Introduction to Web programming			Yes	Yes		
22PL15C	Basics of Java programming			Yes	Yes		

a a .	Course Title		NEEDS ADDRESSED				
Course Code		Local	Regional	National	Global		
22PL15D	Introduction to C++ Programming			Yes	Yes		
22MA21C	Number Theory, Vector Calculus and Computational Methods			Yes	Yes		
22MA21D	Applied Mathematics – II			Yes	Yes		
22PHY22C	Quantum Physics for Engineers	Yes	Yes	Yes	Yes		
22PHY22D	Applied Physics for Engineers			Yes	Yes		
22XX23	Professional Core Courses			Yes	Yes		
22ES24X	Engineering Science Courses-II			Yes	Yes		
22EM2XX	Emerging Technology Courses-II			Yes	Yes		
22HSE26	Communicative English-II	Yes	Yes	Yes	Yes		
22HSSK27	Samskruthika Kannada Balake Kannada			Yes	Yes		
22ME28	IDEA LAB			Yes	Yes		
22CV23	Engineering Mechanics			Yes	Yes		
22CS23	Principles of Programming using C			Yes	Yes		
22ES24A	Introduction to C Programming			Yes	Yes		
22ES24B	Elements of Civil Engineering			Yes	Yes		
22ES24C	Principles of Electronics Engineering			Yes	Yes		
22ES24D	Basics of Electrical Engineering	Yes	Yes	Yes	Yes		
22ES24E	Fundamentals of Mechanical Engineering	Yes	Yes	Yes	Yes		
22EM201	Introduction to Internet of Things			Yes	Yes		
22EM202	Introduction to Drone Technology			Yes	Yes		
22EM203	Bioinspired Engineering			Yes	Yes		
22EM204	Global Climate Change			Yes	Yes		
22EM205	Elements of Blockchain Technology			Yes	Yes		
22EM206	Introduction to Cyber Security			Yes	Yes		
22EM207	Green Buildings			Yes	Yes		
22EM208	Infrastructure for Smart Cities	Yes	Yes	Yes	Yes		
22EM209	Fundamental of Nanoscience & Technology	Yes	Yes	Yes	Yes		
22EM210	Fundamentals of Semiconductor Devices			Yes	Yes		
22EM211	Introduction to Embedded Systems			Yes	Yes		
22EM212	Renewable Energy Sources			Yes	Yes		
22EM213	Fundamentals of Sensor Technology			Yes	Yes		
22EM214	Human factors in Engineering			Yes	Yes		
22EM215	Digital Humanities			Yes	Yes		
22EM216	Smart materials and Systems			Yes	Yes		
22EM217	Elements of Industry 4.0			Yes	Yes		
22MA21A	Vector Calculus, Laplace Transform And Numerical Methods			Yes	Yes		
22MA21B	Vector Calculus And Computational Methods			Yes	Yes		

Chemistry of functional materials	Course Code	Course Title	NEEDS ADDRESSED				
22CHY22D         Chemistry of Engineering materials         Yes         Yes           22MED23         Computer Aided Engineering Graphics         Yes         Yes           22ES24X         Engineering Science Courses-II         Yes         Yes           22PL25X         Programming Language Courses         Yes         Yes           22HSE26         Communicative English-II         Yes         Yes           22HS127         Fundamentals of Indian Constitution         Yes         Yes           22HS248         Scientific Foundations of Health-Yoga Practice         Yes         Yes           22ES24B         Elements of Civil Engineering         Yes         Yes           22ES24B         Elements of Civil Engineering         Yes         Yes           22ES24D         Basics of Electrical Engineering         Yes         Yes           22ES24E         Fundamentals of Mechanical Engineering         Yes         Yes           22PL25A         Introduction to Web programming         Yes         Yes           22PL25B         Introduction to Web programming         Yes         Yes           22PL25B         Introduction to Web programming         Yes         Yes           22PL35B         Introduction to Meb programming         Yes         Yes	Course Code		Local	Regional	National	Global	
22MED23         Computer Aided Engineering Graphics         Yes         Yes           22ES24X         Engineering Science Courses-II         Yes         Yes           22PL25X         Programming Language Courses         Yes         Yes           22PL526         Communicative English-II         Yes         Yes           22HS127         Fundamentals of Indian Constitution         Yes         Yes           22HS228         Scientific Foundations of Health-Yoga Practice         Yes         Yes           22ES24A         Introduction to C Programming         Yes         Yes           22ES24B         Elements of Civil Engineering         Yes         Yes           22ES24D         Principles of Electronics Engineering         Yes         Yes           22ES24D         Basics of Electrical Engineering         Yes         Yes           22ES24E         Fundamentals of Mechanical Engineering         Yes         Yes           22PL25B         Introduction to Web programming         Yes         Yes           22PL25B         Introduction to Web programming         Yes         Yes           22PC33222ME         Introduction to Web programming         Yes         Yes           22CN3222ME         Introduction to Web programming         Yes         Yes	22CHY22C	Chemistry of functional materials			Yes	Yes	
22ES24X         Engineering Science Courses-II         Yes         Yes           22PL25X         Programming Language Courses         Yes         Yes           22HS127         Fundamentals of Indian Constitution         Yes         Yes           22HS127         Fundamentals of Indian Constitution         Yes         Yes           22HS128         Scientific Foundations of Health-Yoga Practice         Yes         Yes           22ES24A         Introduction to C Programming         Yes         Yes           22ES24B         Elements of Civil Engineering         Yes         Yes           22ES24D         Principles of Electronics Engineering         Yes         Yes           22ES24D         Basics of Electrical Engineering         Yes         Yes           22ES24E         Fundamentals of Mechanical Engineering         Yes         Yes           22ES24B         Introduction to Web programming         Yes         Yes           22ES24B         Introduction to Web programming         Yes         Yes           22ES24B         Introduction to Web programming         Yes         Yes           22PL25B         Introduction to Web programming         Yes         Yes           22PL33B         Internance         Introduction to Web programming         Ye	22CHY22D	Chemistry of Engineering materials			Yes	Yes	
22PL25X         Programming Language Courses         Yes         Yes           22HSE26         Communicative English-II         Yes         Yes           22HS127         Fundamentals of Indian Constitution         Yes         Yes           22HS128         Scientific Foundations of Health-Yoga Practice         Yes         Yes           22HS128         Scientific Foundations of Health-Yoga Practice         Yes         Yes           22ES24A         Introduction to C Programming         Yes         Yes           22ES24B         Elements of Civil Engineering         Yes         Yes           22ES24C         Principles of Electronics Engineering         Yes         Yes           22ES24B         Basics of Electrical Engineering         Yes         Yes           22ES24E         Fundamentals of Mechanical Engineering         Yes         Yes           22PL25A         Introduction to Web programming         Yes         Yes           22PL25B         Introduction to Web programming         Yes         Yes           22PL25B         Introduction to Web programming         Yes         Yes           22LSB         Introduction to Web programming         Yes         Yes           22LSB         Introduction to Web programming         Yes         Yes	22MED23	Computer Aided Engineering Graphics			Yes	Yes	
22HSE26         Communicative English-II         Yes         Yes           22HSI27         Fundamentals of Indian Constitution         Yes         Yes           22HSY28         Scientific Foundations of Health-Yoga Practice         Yes         Yes           22ES24A         Introduction to C Programming         Yes         Yes           22ES24B         Elements of Civil Engineering         Yes         Yes           22ES24C         Principles of Electronics Engineering         Yes         Yes           22ES24B         Basics of Electrical Engineering         Yes         Yes           22ES24B         Fundamentals of Mechanical Engineering         Yes         Yes           22ES24B         Introduction to Python programming         Yes         Yes           22EN252B         Introduction to Web programming         Yes         Yes           22PL25B         Introduction to Web programming         Yes         Yes           22PL25B         Introduction to Web programming         Yes         Yes           22PN 25B         Introduction to Web programming         Yes         Yes           22PN 25B         Introduction to Web programming         Yes         Yes           22PN 25B         Introduction to Web programming         Yes         Yes	22ES24X	Engineering Science Courses-II			Yes	Yes	
22HS127         Fundamentals of Indian Constitution         Yes         Yes           22HSY28         Scientific Foundations of Health-Yoga Practice         Yes         Yes           22ES24A         Introduction to C Programming         Yes         Yes           22ES24B         Elements of Civil Engineering         Yes         Yes           22ES24C         Principles of Electronics Engineering         Yes         Yes           22ES24D         Basics of Electrical Engineering         Yes         Yes           22ES24E         Fundamentals of Mechanical Engineering         Yes         Yes           22ELS24E         Fundamentals of Mechanical Engineering         Yes         Yes           22PL25A         Introduction to Python programming         Yes         Yes           22PL25B         Introduction to Web programming         Yes         Yes           22PL35         Engineering Maths III         Yes         Yes           22PL33         Linear Integrated Circuits and Applications         Yes <t< td=""><td>22PL25X</td><td>Programming Language Courses</td><td></td><td></td><td>Yes</td><td>Yes</td></t<>	22PL25X	Programming Language Courses			Yes	Yes	
22HSY28         Scientific Foundations of Health-Yoga Practice         Yes         Yes           22ES24A         Introduction to C Programming         Yes         Yes           22ES24B         Elements of Civil Engineering         Yes         Yes           22ES24C         Principles of Electronics Engineering         Yes         Yes           22ES24D         Basics of Electronics Engineering         Yes         Yes           22ES24E         Fundamentals of Mechanical Engineering         Yes         Yes           22PL25A         Introduction to Python programming         Yes         Yes           22PL25B         Introduction to Web programming         Yes         Yes           E&IE           Link to the relevant document           1. El 2022 SCHEME AND SYLLABUS FINAL compressed.pdf (rvce.edu.in)           22MA31A*         Engineering Maths- III         Yes         Yes           22CV32/22ME         Environment & Sustainability / Engineering         Yes         Yes           3/22BT32         Linear Integrated Circuits and Applications         Yes         Yes           22EI33         Linear Integrated Circuits and Applications         Yes         Yes           22EI35         Control Engineering         Yes	22HSE26	Communicative English-II			Yes	Yes	
22ES24A         Introduction to C Programming         Yes         Yes           22ES24B         Elements of Civil Engineering         Yes         Yes           22ES24C         Principles of Electronics Engineering         Yes         Yes           22ES24D         Basics of Electrical Engineering         Yes         Yes           22ES24E         Fundamentals of Mechanical Engineering         Yes         Yes           22PL25A         Introduction to Python programming         Yes         Yes           22PL25B         Introduction to Web programming         Yes         Yes           E&IE           Link to the relevant document           11. El 2022 SCHEME AND SYLLABUS FINAL compressed.pdf (rvce.edu.in)           22MA31A*         Engineering Maths- III         Yes         Yes           22CV32/22ME         Materials / Bioinspired Engineering         Yes         Yes           22EI33         Linear Integrated Circuits and Applications         Yes         Yes           22EC34         Analysis & Design of Digital Circuits with HDL         Yes         Yes           22EI35         Control Engineering         Yes         Yes           22DCS36**         Bridge Course: C Programming         Yes         Ye	22HSI27	Fundamentals of Indian Constitution			Yes	Yes	
22ES24B         Elements of Civil Engineering         Yes         Yes           22ES24C         Principles of Electronics Engineering         Yes         Yes           22ES24D         Basics of Electrical Engineering         Yes         Yes           22ES24E         Fundamentals of Mechanical Engineering         Yes         Yes           22PL25A         Introduction to Python programming         Yes         Yes           E&IE           Link to the relevant document           11. El 2022 SCHEME AND SYLLABUS FINAL compressed.pdf (rvce.edu.in)           22MA31A*         Engineering Maths- III         Yes         Yes           22E133         Linear Integrated Circuits and Applications         Yes         Yes           22E133         Linear Integrated Circuits and Applications         Yes         Yes           22EC34         Analysis & Design of Digital Circuits with HDL         Yes         Yes           22E135         Control Engineering         Yes         Yes           22DCS36**         Bridge Course: C Programming         Yes         Yes           22EI310         Summer Internship- I         Yes         Yes           22EM424         Brobality theory and Linear Programming         Yes	22HSY28	Scientific Foundations of Health-Yoga Practice			Yes	Yes	
22ES24C         Principles of Electronics Engineering         Yes         Yes           22ES24D         Basics of Electrical Engineering         Yes         Yes           22ES24E         Fundamentals of Mechanical Engineering         Yes         Yes           22PL25A         Introduction to Python programming         Yes         Yes           E&IE           Link to the relevant document           11. El 2022 SCHEME AND SYLLABUS FINAL compressed.pdf (rvce.edu.in)           22MA31A*         Engineering Maths- III         Yes         Yes           22CV32/22ME 32/22BT32         Broirronment & Sustainability / Engineering Materials / Bioinspired Engineering         Yes         Yes           22EI33         Linear Integrated Circuits and Applications         Yes         Yes           22EC34         Analysis & Design of Digital Circuits with HDL         Yes         Yes           22EI35         Control Engineering         Yes         Yes           22BSA8E39 Ability Enhancement course         Yes         Yes           22HSAE39 Ability Enhancement course         Yes         Yes           22EI430         Summer Internship- I         Yes         Yes           22EM41A         Probability theory and Linear Programming         Yes <td>22ES24A</td> <td>Introduction to C Programming</td> <td></td> <td></td> <td>Yes</td> <td>Yes</td>	22ES24A	Introduction to C Programming			Yes	Yes	
22ES24D Basics of Electrical Engineering Yes Yes 22ES24E Fundamentals of Mechanical Engineering Yes Yes 22PL25A Introduction to Python programming Yes Yes 22PL25B Introduction to Web programming Yes Yes 22PL25B Introduction to Web programming Yes Yes 22PL25B Introduction to Web programming Yes Yes  E&IE  Link to the relevant document 11. El 2022 SCHEME AND SYLLABUS FINAL compressed.pdf (rvce.edu.in)  22MA31A* Engineering Maths- III Yes Yes 22CV32/22ME 232/22BT32 Materials / Bioinspired Engineering Materials / Bioinspired Engineering Yes Yes 22EG34 Linear Integrated Circuits and Applications Yes Yes 22EG35 Control Engineering Yes Yes 22EG36* Bridge Course: C Programming Yes Yes 22DCS36** Bridge Course: C Programming Yes Yes 22EIS30 Summer Internship- I Yes Yes 22EIS310 Summer Internship- I Yes Yes 22EMA41A Probability theory and Linear Programming Yes Yes 22CM42/ Environment & Sustainability/ Materials Science for Engineers/ 22EBT42 Bio Safety Standards and Ethics 22EI43 Microcontroller and Programming Yes Yes 22EC44 Signals and System Yes Yes 22EC44 Signals and System Yes Yes 22EI45 Sensors and Actuators Yes Yes 22EI46AX Professional Core Elective – Group A Yes Yes 22HSAE47X Ability Enhancement course 22HSAE49 Yes Yes 22HSAE47X Ability Enhancement course Yes Yes 22HSAE49 Universal Human Values	22ES24B	Elements of Civil Engineering			Yes	Yes	
22ES24E         Fundamentals of Mechanical Engineering         Yes         Yes           22PL25A         Introduction to Python programming         Yes         Yes           22PL25B         Introduction to Web programming         Yes         Yes           E&IE           Link to the relevant document           11. El 2022 SCHEME AND SYLLABUS FINAL compressed.pdf (rvce.edu.in)           22MA31A*         Engineering Maths- III         Yes         Yes           22CV32/22ME         Sustainability / Engineering         Yes         Yes           22EI33         Linear Integrated Circuits and Applications         Yes         Yes           22EC34         Analysis & Design of Digital Circuits with HDL         Yes         Yes           22EI35         Control Engineering         Yes         Yes           22DCS36**         Bridge Course: C Programming         Yes         Yes           22HSAE39         Ability Enhancement course         Yes         Yes           22EI310         Summer Internship- I         Yes         Yes           22EMA41A         Probability theory and Linear Programming         Yes         Yes           22EN422/b         Bio Safety Standards and Ethics         Yes         Yes     <	22ES24C	Principles of Electronics Engineering			Yes	Yes	
22PL25A Introduction to Python programming Yes Yes 22PL25B Introduction to Web programming Yes Yes  E&IE  Link to the relevant document 11. El 2022 SCHEME AND SYLLABUS FINAL compressed.pdf (rvce.edu.in)  22MA31A* Engineering Maths- III Yes Yes 22CV32/22ME 32/22BT32 Materials / Bioinspired Engineering Materials / Bioinspired Engineering Yes Yes 22EC34 Analysis & Design of Digital Circuits with HDL Yes Yes 22EC34 Analysis & Design of Digital Circuits with HDL Yes Yes 22EC36* Bridge Course: C Programming Yes Yes 22DCS36** Bridge Course: C Programming Yes Yes 22HSAE39 A/B/C/D/E *** Ability Enhancement course Yes Yes 22EI310 Summer Internship- I Yes Yes 22CV42/ Environment & Sustainability/ Materials Science for Engineers/ Yes Bio Safety Standards and Ethics 22EI43 Microcontroller and Programming Yes Yes 22EC44 Signals and System Yes Yes 22EI45 Sensors and Actuators Yes Yes 22HSAE47X Ability Enhancement course Yes Yes 22HSAE48 Universal Human Values Yes Yes	22ES24D	Basics of Electrical Engineering			Yes	Yes	
E&IE  Link to the relevant document 11. El 2022 SCHEME AND SYLLABUS FINAL compressed.pdf (rvce.edu.in)  22MA31A* Engineering Maths- III Yes Yes 22CV32/22ME Analysis & Design of Digital Circuits with HDL Yes Yes 22EG34 Analysis & Design of Digital Circuits with HDL Yes Yes 22EG36* Bridge Course: C Programming Yes Yes 22HSAE39 Ability Enhancement course Yes Yes 22EI310 Summer Internship- I Yes Yes 22CV42/ 22EM41A Probability theory and Linear Programming Yes Yes 22EV42/ 22EV42/ 22EV42/ 22EV43 Microcontroller and Programming Yes Yes 22EV44 Signals and System Yes Yes 22EC44 Signals and System Yes Yes 22EI46AX Professional Core Elective – Group A Yes Yes Yes 22HSAE47X Ability Enhancement course Yes Yes Yes 22HSAE47X Ability Enhancement course Yes Yes Yes	22ES24E	Fundamentals of Mechanical Engineering			Yes	Yes	
Link to the relevant document  11. El 2022 SCHEME AND SYLLABUS FINAL compressed.pdf (rvce.edu.in)  22MA31A* Engineering Maths- III Yes Yes  22CV32/22ME Environment & Sustainability / Engineering Materials / Bioinspired Engineering Yes Yes  22EI33 Linear Integrated Circuits and Applications Yes Yes  22EC34 Analysis & Design of Digital Circuits with HDL Yes Yes  22EI35 Control Engineering Yes Yes  22DCS36** Bridge Course: C Programming Yes Yes  22HSAE39 A/B/C/D/E ***  22EI310 Summer Internship- I Yes Yes  22EMA41A Probability theory and Linear Programming Yes Yes  22CV42/ Environment & Sustainability/ Materials Science for Engineers/ Bio Safety Standards and Ethics  22EI43 Microcontroller and Programming Yes Yes  22EC44 Signals and System Yes Yes  22EI45 Sensors and Actuators Yes Yes  22HSAE47X Ability Enhancement course Yes Yes	22PL25A	Introduction to Python programming			Yes	Yes	
Link to the relevant document  11. El 2022 SCHEME AND SYLLABUS FINAL compressed.pdf (rvce.edu.in)  22MA31A* Engineering Maths- III Yes Yes  22CV32/22ME Environment & Sustainability / Engineering Materials / Bioinspired Engineering Yes Yes  22EI33 Linear Integrated Circuits and Applications Yes Yes  22EC34 Analysis & Design of Digital Circuits with HDL Yes Yes  22EI35 Control Engineering Yes Yes  22DCS36** Bridge Course: C Programming Yes Yes  22HSAE39 A/B/C/D/E *** Ability Enhancement course Yes Yes  22EI310 Summer Internship- I Yes Yes  22EM41A Probability theory and Linear Programming Yes Yes  22CV42/ Environment & Sustainability/ Materials Science for Engineers/ Yes Bio Safety Standards and Ethics  22EI43 Microcontroller and Programming Yes Yes  22EC44 Signals and System Yes Yes  22EC44 Signals and System Yes Yes  22EI45 Sensors and Actuators Yes Yes  22EI46AX Professional Core Elective – Group A Yes Yes  22HSAE47X Ability Enhancement course  22HSU48 Universal Human Values Yes Yes	22PL25B	Introduction to Web programming			Yes	Yes	
22MA31A*   Engineering Maths- III   Yes   Yes		E&IE	'		<u>'</u>		
22MA31A*Engineering Maths- IIIYesYes22CV32/22ME 32/22BT32Environment & Sustainability / Engineering Materials / Bioinspired EngineeringYesYes22EI33Linear Integrated Circuits and ApplicationsYesYes22EC34Analysis & Design of Digital Circuits with HDLYesYes22EI35Control EngineeringYesYes22DCS36**Bridge Course: C ProgrammingYesYes22HSAE39 A/B/C/D/E ***Ability Enhancement courseYesYes22EI310Summer Internship- IYesYes22MA41AProbability theory and Linear ProgrammingYesYes22CV42/ 22ME42/ 6ror Engineers/ Bio Safety Standards and EthicsYesYes22EI43Microcontroller and ProgrammingYesYes22EC44Signals and SystemYesYes22EC44Signals and ActuatorsYesYes22EI45Sensors and ActuatorsYesYes22EI46AXProfessional Core Elective – Group AYesYes22HSAE47XAbility Enhancement courseYesYes22HSU48Universal Human ValuesYesYes		Link to the relevant docun	ient				
22CV32/22ME   Environment & Sustainability / Engineering   Yes   Yes		11. El 2022 SCHEME AND SYLLABUS FINAL comp	ressed.	odf (rvce.ed	<u>u.in)</u>		
32/22BT32 Materials / Bioinspired Engineering  22EI33 Linear Integrated Circuits and Applications  22EC34 Analysis & Design of Digital Circuits with HDL  22EI35 Control Engineering  22EI35 Pridge Course: C Programming  22HSAE39 A/B/C/D/E *** Ability Enhancement course  22EII310 Summer Internship- I  22EVA41A Probability theory and Linear Programming  22CV42/ Environment & Sustainability/ Materials Science for Engineers/ 22BT42 Bio Safety Standards and Ethics  22EI43 Microcontroller and Programming  22EI43 Microcontroller and Programming  22EI45 Sensors and Actuators  22EI46AX Professional Core Elective – Group A  22HSAE47X Ability Enhancement course  Yes Yes  Yes  Yes  Yes  Yes  Yes  Ye	22MA31A*	Engineering Maths- III			Yes	Yes	
22EC34 Analysis & Design of Digital Circuits with HDL Yes Yes 22EI35 Control Engineering Yes Yes 22DCS36** Bridge Course: C Programming Yes Yes 22HSAE39 A/B/C/D/E *** Ability Enhancement course Yes Yes 22EII310 Summer Internship- I Yes Yes 22MA41A Probability theory and Linear Programming Yes Yes 22CV42/ Environment & Sustainability/ Materials Science for Engineers/ Yes Bio Safety Standards and Ethics 22EI43 Microcontroller and Programming Yes Yes 22EC44 Signals and System Yes Yes 22EI45 Sensors and Actuators Yes Yes 22EI46AX Professional Core Elective – Group A Yes Yes 22HSAE47X Ability Enhancement course Yes Yes 22HSU48 Universal Human Values Yes Yes					Yes	Yes	
22EI35Control EngineeringYesYes22DCS36**Bridge Course: C ProgrammingYesYes22HSAE39 A/B/C/D/E ***Ability Enhancement courseYesYes22EII310Summer Internship- IYesYes22MA41AProbability theory and Linear ProgrammingYesYes22CV42/ 22ME42/ 6or Engineers/ Bio Safety Standards and EthicsYesYes22EI43Microcontroller and ProgrammingYesYes22EC44Signals and SystemYesYes22EI45Sensors and ActuatorsYesYes22EI46AXProfessional Core Elective – Group AYesYes22HSAE47XAbility Enhancement courseYesYes22HSU48Universal Human ValuesYesYes	22EI33	Linear Integrated Circuits and Applications			Yes	Yes	
22DCS36** Bridge Course: C Programming Yes Yes  22HSAE39 A/B/C/D/E *** Ability Enhancement course  22EII310 Summer Internship- I Yes Yes  22EVA41A Probability theory and Linear Programming Yes Yes  22CV42/ Environment & Sustainability/ Materials Science 22ME42/ for Engineers/ Yes Bio Safety Standards and Ethics  22EI43 Microcontroller and Programming Yes Yes  22EC44 Signals and System Yes Yes  22EI45 Sensors and Actuators Yes Yes  22EI46AX Professional Core Elective – Group A Yes Yes  22HSAE47X Ability Enhancement course Yes Yes  22HSU48 Universal Human Values Yes Yes	22EC34	Analysis & Design of Digital Circuits with HDL			Yes	Yes	
22HSAE39 A/B/C/D/E ***Ability Enhancement courseYesYes22EII310Summer Internship- IYesYes22MA41AProbability theory and Linear ProgrammingYesYes22CV42/ 22ME42/ 22BT42Environment & Sustainability/ Materials Science for Engineers/ 22BT42YesYes22EI43Microcontroller and ProgrammingYesYes22EC44Signals and SystemYesYes22EI45Sensors and ActuatorsYesYes22EI46AXProfessional Core Elective – Group AYesYes22HSAE47XAbility Enhancement courseYesYes22HSU48Universal Human ValuesYesYes	22EI35	Control Engineering			Yes	Yes	
A/B/C/D/E *** Ability Enhancement course  22EII310  Summer Internship- I  22MA41A  Probability theory and Linear Programming  Yes  Yes  Yes  Yes  Yes  Yes  Yes  Ye	22DCS36**	Bridge Course: C Programming			Yes	Yes	
22MA41A Probability theory and Linear Programming Yes Yes  22CV42/ Environment & Sustainability/ Materials Science 22ME42/ for Engineers/ Yes Yes  22BT42 Bio Safety Standards and Ethics  22EI43 Microcontroller and Programming Yes Yes  22EC44 Signals and System Yes Yes  22EI45 Sensors and Actuators Yes Yes  22EI46AX Professional Core Elective – Group A Yes Yes  22HSAE47X Ability Enhancement course Yes Yes  22HSU48 Universal Human Values Yes Yes		Ability Enhancement course			Yes	Yes	
22CV42/ 22ME42/ 22BT42Environment & Sustainability/ Materials Science for Engineers/ Bio Safety Standards and EthicsYesYes22EI43Microcontroller and ProgrammingYesYes22EC44Signals and SystemYesYes22EI45Sensors and ActuatorsYesYes22EI46AXProfessional Core Elective – Group AYesYes22HSAE47XAbility Enhancement courseYesYes22HSU48Universal Human ValuesYesYes	22EII310	Summer Internship- I			Yes	Yes	
22ME42/ 22BT42for Engineers/ Bio Safety Standards and EthicsYesYes22EI43Microcontroller and ProgrammingYesYes22EC44Signals and SystemYesYes22EI45Sensors and ActuatorsYesYes22EI46AXProfessional Core Elective – Group AYesYes22HSAE47XAbility Enhancement courseYesYes22HSU48Universal Human ValuesYesYes	22MA41A	Probability theory and Linear Programming			Yes	Yes	
22EC44Signals and SystemYesYes22EI45Sensors and ActuatorsYesYes22EI46AXProfessional Core Elective – Group AYesYes22HSAE47XAbility Enhancement courseYesYes22HSU48Universal Human ValuesYesYes	22ME42/	for Engineers/			Yes	Yes	
22EI45Sensors and ActuatorsYesYes22EI46AXProfessional Core Elective – Group AYesYes22HSAE47XAbility Enhancement courseYesYes22HSU48Universal Human ValuesYesYes	22EI43	Microcontroller and Programming			Yes	Yes	
22EI46AXProfessional Core Elective – Group AYesYes22HSAE47XAbility Enhancement courseYesYes22HSU48Universal Human ValuesYesYes	22EC44	Signals and System			Yes	Yes	
22HSAE47XAbility Enhancement courseYesYes22HSU48Universal Human ValuesYesYes	22EI45	Sensors and Actuators			Yes	Yes	
22HSAE47XAbility Enhancement courseYesYes22HSU48Universal Human ValuesYesYes	22EI46AX	Professional Core Elective – Group A			Yes	Yes	
	22HSAE47X	Ability Enhancement course			Yes	Yes	
22DMA49*** Bridge Course: Mathematics Ves Ves	22HSU48	Universal Human Values			Yes	Yes	
Dridge Course. Franciscular	22DMA49***	Bridge Course: Mathematics			Yes	Yes	

Carrer Cada	Course Title		NEEDS A	DDRESSE	D					
Course Code	Course Title	Local	Regional	National	Global					
	ELECTRICAL AND ELECTRONICS	ENGIN	EERING							
	Link to the relevant document									
222 5 4 2 1 4	10. EE 2022 SCHEME AND SYLLABUS FINAL_comp	I .	par (rvce.ea	u.in <u>)</u>						
22MA31A	Engineering Maths- III	Yes								
22CV32/22ME 32/22BT32	Environment & Sustainability / Engineering Materials / Bioinspired Engineering	Yes								
22EE33	Electronics & Linear Integrated Circuits,			Yes	Yes					
22EC34	Analysis and Design of Digital Circuits with HDL			Yes	Yes					
22EE35	Signals and Network Analysis			Yes	Yes					
22DCS36	Bridge Course: C Programming	Yes								
22HSAE39	Ability Enhancement course			Yes						
22EII310	Summer Internship- I			Yes						
22MA41A	Probability theory and Linear Programming	Yes								
22CV42/ 22ME42/ 22BT42	Environment & Sustainability/ Materials Science for Engineers/ Bio Safety Standards and Ethics	Yes								
22EI43	Microcontroller and Programming			Yes	Yes					
22EE44	Power Electronics and Applications			Yes	Yes					
22ET45	Principles of Electromagnetics			Yes	Yes					
22HSAE47X	Ability Enhancement course			Yes						
22HSU48	Universal Human Values			Yes						
22DMA49	Bridge Course: Mathematics	Yes								
	INFORMATION SCIENCE AND EN	GINE	ERING	•						
	Link to the relevant docum ISFINAL compressed.pd									
22MA31C	Linear Algebra and Probability Theory			Yes	Yes					
22CV32/ 22ME32/ 22BT32	Environment & Sustainability /Engineering Materials / Bio Safety Standards and Ethics			Yes	Yes					
22IS33	Data Structures and Application (Common to CS, IS, CD & CY)			Yes	Yes					
22IS34	Logic Design and Computer Organisation			Yes	Yes					
22CS35	Operating Systems (Common to CS & IS)			Yes	Yes					
22ISDT36	Design Thinking Lab			Yes	Yes					
22ISI37	Summer Internship- I			Yes	Yes					
22DCS38**	Bridge Course: C Programming			Yes	Yes					
22MA41	Discrete Mathematical Structures and Combinatorics (Common to CS, IS, CD, AI & CY)			Yes	Yes					

G G 1	Course Title	NEEDS ADDRESSED				
Course Code		Local	Regional	National	Global	
22CV42/ 22ME42/ 22BT42	Environment & Sustainability / Engineering Materials Bio Safety Standards and Ethics	Yes	Yes	Yes	Yes	
22CS43	Design and Analysis of Algorithms (Common to CS, IS, CD, AI & CY)			Yes	Yes	
22IS44	Virtual and Augmented Reality			Yes	Yes	
22CS45	Computer Networks (Common to CS, IS, CD, AI & CY)			Yes	Yes	
22IS46AX	Professional Core Course 3 – Group A			Yes	Yes	
22HSAE47X	ABILITY ENHANCEMENT COURSE			Yes	Yes	
22HSU48	Universal Human Values			Yes	Yes	
22DMA49***	Bridge Course: Mathematics			Yes	Yes	
22IS46A1	Multi-Core Computer Architecture – Storage and Interconnects			Yes	Yes	
22IS46A2	Embedded System Design With ARM			Yes	Yes	
22IS46A3	Distributed Systems			Yes	Yes	
22IS46A4	Introduction To Haskell Programming			Yes	Yes	
22IS46A5	Computer Graphics			Yes	Yes	
	MASTER OF COMPUTER APPL	ICATIO	ONS			
	Link to the relevant docum MCA-I-11-1-24 compressed					
22MAT11T	Mathematical Foundation for Computer Science	Yes				
22MCA12T	Linux Shell Scripting	Yes				
22MCA13TL	Computer Networks	Yes				
22MCA14TL	Object Oriented Programming	Yes				
22MCA15TL	Web Application Programming			Yes		
22HSS16L	Ability Enhancement Course-I	Yes		Yes		
22MCA17T	Basics of Programming	Yes				
22MCA21T	Research Methodology and IPR			Yes	Yes	
22MCA22T	Design and Analysis of Algorithms	Yes				
22MCA23TL	Data Modeling	Yes				
22MCA24TL	Cloud Native Fullstack Application Development-I	Yes				
22MCA251TL	Internet of Things	Yes		Yes		
22MCA252TL	Data Science-I			Yes		
22MCA253TL	Software Testing and Practices	Yes				
22MCA254TL	2D and 3D Modeling	Yes				
22MCA261T	DevOps	Yes				
22MCA262T	Advanced Computer Networks	Yes				
22MCA263T	Cryptography and Network Security		Yes	Yes	Yes	

G G 1	Course Title		NEEDS A	DDRESSE	D
Course Code		Local	Regional	National	Global
22MCA264T	Digital Marketing		Yes	Yes	Yes
22MCA27L	Design Thinking	Yes		Yes	Yes
22MCA31T	Software Engineering	Yes			
22MCA32TL	Modern Application Development	Yes			
22MCA33TL	Cloud Native Fullstack	Yes			
22MCA341T	Data Science-II	Yes			
22MCA342T	Augmented Reality and Virtual Reality	Yes			
22MCA343T	UI/UX		Yes	Yes	Yes
22MCA344T	Blockchain and Cyber Security		Yes	Yes	Yes
22MCA351T	Sustainability and Society	Yes			
22MCA352T	Anthropology and Digital World	Yes			
22MCA353T	Media and Communication		Yes	Yes	Yes
22MCA354T	Philosophy and AI	Yes			
22MCA36L	Minor Project	Yes			
22MCA37L	Internship*	Yes			
22MCA41L	Project Work	Yes			
22MCA42L	Technical Seminar	Yes			
22HSS43L	Ability Enhancement Course-II			Yes	Yes
	MTECH - INFORMATION TEC	HNOLO	GY	•	
	Link to the relevant docun				
	MITnew-3-4-24-copy-12-04-2024.pdf	(rvce.ed	<u>du.in)</u>	1	
22MAT11CT	Linear Algebra and Probability Theory			Yes	Yes
22MIT12TL	Advanced Algorithms and Applications			Yes	Yes
22MIT13T	Enterprise Application Development			Yes	Yes
22MIT14L	Full Stack Development Lab			Yes	Yes
22MIT1AXT	Elective A (Professional Elective)			Yes	Yes
22MIT1BXT	Elective B (Professional Elective)			Yes	Yes
22MCE1A1T	Artificial Intelligence & Machine Learning			Yes	Yes
22MCN1A2T	Block Chain Technologies			Yes	Yes
22MIT1A3T	Mobile Application Development			Yes	Yes
22MIT1A4T	Multicore Architecture			Yes	Yes
22MCN1B1T	Social Network Analysis			Yes	Yes
22MIT1B2T	Networks and Cryptography			Yes	Yes
22MIT1B3T	IOT and Applications			Yes	Yes
22MIT1B4T	Computer Systems Performance Analysis			Yes	Yes
22IM21T	Research Methodology			Yes	Yes
22MSE22TL	Cloud Native Devops			Yes	Yes
22MIT23T	Cyber Security & Digital Forensics			Yes	Yes
22XXX2CXT	Elective C (Professional Elective)			Yes	Yes

G G 1	G TIM		NEEDS A	DDRESSED	
Course Code	Course Title	Local	Regional	National	Global
22XXX2DXT	Elective D (Global Elective)			Yes	Yes
22MIT24L	API Development and Integration Lab			Yes	Yes
22HSS25T	Professional Skills Development-I			Yes	Yes
22MSE2C1T	Robotic Process Automation			Yes	Yes
22MSE2C2T	Software Project Management			Yes	Yes
22MIT2C3T	Cloud Computing			Yes	Yes
22MIT2C4T	Data Engineering			Yes	Yes
22BT2D01T	Bioinspired Engineering			Yes	Yes
22BT2D02T	Health Informatics			Yes	Yes
22CS2D03T	Business Analytics			Yes	Yes
22CV2D04T	Industrial and Occupational Health and Safety			Yes	Yes
22CV2D05T	Intelligent Transportation Systems			Yes	Yes
22EC2D06T	Electronic System Design			Yes	Yes
22EC2D07T	Evolution of Wireless Technologies			Yes	Yes
22ET2D08T	Tracking and Navigation Systems			Yes	Yes
22IM2D09T	Project Management	Yes	Yes	Yes	Yes
22IS2D10T	Database and Information Systems	Yes	Yes	Yes	Yes
22IS2D11T	Management Information System			Yes	Yes
22MAT2D12T	Statistical and Optimization Methods			Yes	Yes
22ME2D13T	Industry 4.0			Yes	Yes
22MIT31T	Big Data Analytics			Yes	Yes
22XXX3EXT	Elective E (Professional Elective)			Yes	Yes
22MIT32N	Internship			Yes	Yes
22MIT33P	Minor Project			Yes	Yes
22MIT3E1T	Augmented Reality & Virtual Reality			Yes	Yes
22MIT3E2T	Natural Language Processing			Yes	Yes
22MIT3E3T	Information Retrieval			Yes	Yes
22MIT3E4T	Fintech Applications			Yes	Yes
22MIT41P	Major Project			Yes	Yes
22HSS42	Professional Skills Development-II			Yes	Yes
	MTECH – SOFTWARE ENGIN	NEERIN	$\mathbf{G}$		
	Link to the relevant document MSE1 compressed.pdf (rvce.				
22MAT11CT	Linear Algebra and Probability Theory			Yes	Yes
22MSE12TL	Data Structures and Algorithms			Yes	Yes
22MSE13T	Agile Methodology			Yes	Yes
22MSE14L	Software Application Development Lab			Yes	Yes
22XXX1AXT	Elective A (Professional Elective)			Yes	Yes
22XXX1BXT	Elective B (Professional Elective)			Yes	Yes

			NEEDS A	DDRESSE	D
Course Code	Course Title	Local	Regional	National	Global
22MCE1A1T	Artificial Intelligence & Machine Learning		_	Yes	Yes
22MCN1A2T	Block Chain Technologies			Yes	Yes
22MIT1A3T	Mobile Application Development			Yes	Yes
22MSE1A4T	Reliability Models			Yes	Yes
22MCN1B1T	Social Network Analysis	Yes	Yes	Yes	Yes
22MSE1B2T	Human Computer Interaction	Yes	Yes	Yes	Yes
22MIT1B3T	IoT and Applications	Yes	Yes	Yes	Yes
22MSE1B4T	Microservices Development			Yes	Yes
22IM21T	Research Methodology			Yes	Yes
22MSE22TL	Cloud Native Devops			Yes	Yes
22MSE23T	Software Architecture Patterns			Yes	Yes
22XXX2CXT	Elective C (Professional Elective)			Yes	Yes
22XXX2DXT	Elective D (Global Elective)			Yes	Yes
22MIT24L	API Development and Integration Lab			Yes	Yes
22HSS25T	Professional Skills Development-I			Yes	Yes
22MSE2C1T	Robotic Process Automation			Yes	Yes
22MSE2C2T	Software Project Management			Yes	Yes
22MSE2C3T	User Interface & User Experience	Yes	Yes	Yes	Yes
22MSE2C4T	Requirements Engineering			Yes	Yes
22BT2D01T	Bioinspired Engineering			Yes	Yes
22BT2D02T	Health Informatics			Yes	Yes
22CS2D03T	Business Analytics			Yes	Yes
22CV2D04T	Industrial and Occupational Health and Safety			Yes	Yes
22CV2D05T	Intelligent Transportation Systems			Yes	Yes
22EC2D06T	Electronic System Design			Yes	Yes
22EC2D07T	Evolution of Wireless Technologies			Yes	Yes
22ET2D08T	Tracking and Navigation Systems			Yes	Yes
22IM2D09T	Project Management	Yes	Yes	Yes	Yes
22IS2D10T	Database and Information Systems	Yes	Yes	Yes	Yes
22IS2D11T	Management Information System	Yes	Yes	Yes	Yes
22MAT2D12T	Statistical and Optimization Methods			Yes	Yes
22ME2D13T	Industry 4.0			Yes	Yes
22MSE31T	Software Quality Testing and Automation	Yes	Yes	Yes	Yes
22XXX3EXT	Elective E (Professional Elective)			Yes	Yes
22MSE32N	Internship			Yes	Yes
22MSE33P	Minor Project			Yes	Yes
22MIT3E1T	Augmented Reality & Virtual Reality	Yes	Yes	Yes	Yes
22MSE3E2T	Decision Support Systems			Yes	Yes
22MSE3E3T	Web Intelligence			Yes	Yes

Comme Code	C T'41-		NEEDS A	DDRESSED			
Course Code	Course Title	Local	Regional	National	Global		
22MSE3E4T	Mobile Commerce			Yes	Yes		
22MSE41P	Major Project			Yes	Yes		
22HSS42	Professional Skills Development-II			Yes	Yes		
	MTECH – POWER ELECTRONICS						
	Link to the relevant docum  MPE1 compressed.pdf (rvce.e						
22MAT11AT	Computational Mathematics	Yes					
22MPE12TL	Power Converters			Yes	Yes		
22MPE13T	Analysis and Control of AC and DC Drives			Yes	Yes		
22MPE14L	Software Programming for Power Electronics			Yes	Yes		
22MPE1A1T	Generalized Theory of Electrical Machines			Yes	Yes		
22MPE1A2T	EV and HEV - Architecture and Design			Yes	Yes		
22MPE1A3T	Power Quality Problems and Mitigation			Yes	Yes		
22MPE1A4T	Smart Grid and Challenges			Yes	Yes		
22MPE1B1T	Microcontoller and applications in Power Electronics			Yes	Yes		
22MPE1B2T	VLSI and Applications in Power Electronics			Yes	Yes		
22MPE1B3T	Advanced Control Systems			Yes	Yes		
22MPE1B4T	Switching Techniques for Power Converters			Yes	Yes		
22IM21T	Research Methodology			Yes	Yes		
22MPE22TL	Advanced Power Converters and Applications			Yes	Yes		
22MPE23T	PLC and SCADA Systems			Yes	Yes		
22MPE2C1T	EMI and EMC in Power Electronics System Design			Yes	Yes		
22MPE2C2T	FACTS and Custom Power Devices			Yes	Yes		
22MPE2C3T	Intelligent control techniques in drives			Yes	Yes		
22MPE2C4T	IoT applications in smart grid			Yes	Yes		
22MPE24L	Embedded Systems Lab			Yes	Yes		
22HSS25T	Professional Skills Development-I			Yes			
22MPE31T	Modelling of Power Electronic Circuits			Yes	Yes		
22MPE3E1T	Embedded Systems for EV applications			Yes	Yes		
22MPE3E2T	Communication Systems and Networking			Yes	Yes		
22MPE3E3T	HVDC power transmission Systems			Yes	Yes		
22MPE3E4T	Power Electronics for Renewable Energy Systems			Yes	Yes		
22MPE32N	Internship			Yes			
22MPE33P	Minor Project			Yes			
22MPE41P	Major Project			Yes			
22HSS42	Professional Skills Development-II			Yes			

<b>Course Code</b>	Course Title		NEEDS A	EDS ADDRESSED			
	Course Title	Local	Regional	National	Global		
MTECH – STRUCTURAL ENGINEERING							
	Link to the relevant document						
	MST1_compressed.pdf (rvce.e	edu.in)		1			
22MAT11AT	Computational Mathematics			Yes	Yes		
22MST12TL	Computational Structural Mechanics			Yes	Yes		
22MST13T	Advanced Design of Reinforced Concrete Structures			Yes	Yes		
22MST14L	Analysis and Design of Structures Lab			Yes	Yes		
22MST1A1T	Finite Element Method of Analysis			Yes	Yes		
22MST1A2T	Forensic Engineering and Rehabilitation of Structures			Yes	Yes		
22MST1A3T	High Rise Structures			Yes	Yes		
22MST1B1T	Advanced Structural Analysis			Yes	Yes		
22MST1B2T	Mechanics of Deformable Bodies			Yes	Yes		
22MST1B13	Design of Masonary Structures			Yes	Yes		
22IM21T	Research Methodology	Yes	Yes	Yes	Yes		
22MST22TL	Structural Dynamics			Yes	Yes		
22MST23T	Advanced Design of Steel Structures			Yes	Yes		
22MST2C1T	Design of Concrete Bridges			Yes	Yes		
22MST2C2T	Design for Safety			Yes	Yes		
22MST2C3T	Precast Concrete structures			Yes	Yes		
22MST2C4T	Sustainable Construction Practices			Yes	Yes		
22XXX2DXXT	Elective D (Global Elective)			Yes	Yes		
22MST24L	Analysis and Design of Structures lab			Yes	Yes		
22HSS25T	Professional Skills Development-I	Yes	Yes	Yes	Yes		
22MST31T	Advanced Construction Materials			Yes	Yes		
22MST3E1T	Structural Reliability			Yes	Yes		
22MST3E2T	Earthquake Resistant Structures			Yes	Yes		
22MST3E3T	Stability of Structures			Yes	Yes		
22MST32N	Internship	Yes	Yes	Yes	Yes		
22MST33P	Minor Project			Yes	Yes		
22MST41P	Major Project			Yes	Yes		
22HSS42	Professional Skills Development-II	Yes	Yes	Yes	Yes		
	MTECH – VLSI DESIG	N					
	Link to the relevant document  MVE1 compressed.pdf (rvce.edu.in)						
22MVE11T	Digital System Design with FPGA	Yes	Yes	Yes	Yes		
22MVE12TL	Digital IC Design			Yes	Yes		
22MVE13T	Advanced Embedded System Design	Yes	Yes	Yes	Yes		

	G THE		NEEDS A	EDS ADDRESSED		
Course Code	Course Title	Local	Regional	National	Global	
22MVE14L	ARM CPUs Programming Lab	Yes	Yes	Yes	Yes	
22MVE1A1T	Low Power VLSI Design			Yes	Yes	
22MVE1A2T	ASIC Design			Yes	Yes	
22MVE1A3T	VLSI Digital Signal Processing			Yes	Yes	
22MVE1A4T	Real Time Embedded Systems			Yes	Yes	
22MVE1A5T	Semiconductor Device Modelling			Yes	Yes	
22IM21T	Research Methodology			Yes	Yes	
22MVE22TL	Analog IC Design			Yes	Yes	
22MVE23T	System Verilog for Design & Verification			Yes	Yes	
22MVE24L	Analog Layout Design Lab			Yes	Yes	
22HSS25T	Professional Skills Development-I			Yes	Yes	
22MCS2C1T	Development of Modem SoCs for Wireless, Wireline and IOT applications	Yes	Yes	Yes	Yes	
22MVE2C2T	VLSI Memory Chip Design	Yes	Yes	Yes	Yes	
22MVE2C3T	Robotics and Industrial Automation			Yes	Yes	
22MVE2C4T	Automotive Electronics			Yes	Yes	
22BT2D01T	Bioinspired Engineering			Yes	Yes	
22BT2D02T	Health Informatics			Yes	Yes	
22CS2D03T	Business Analytics			Yes	Yes	
22CV2D04T	Industrial and Occupational Health and Safety	Yes	Yes	Yes	Yes	
22CV2D05T	Intelligent Transportation Systems			Yes	Yes	
22EC2D06T	Electronic System Design			Yes	Yes	
22EC2D07T	Evolution of Wireless Technologies			Yes	Yes	
22ET2D08T	Tracking and Navigation Systems			Yes	Yes	
22IM2D09T	Project Management	Yes	Yes	Yes	Yes	
22IS2D10T	Database and Information Systems			Yes	Yes	
22IS2D11T	Management Information Systems			Yes	Yes	
22MAT2D12T	Statistical and Optimization Methods			Yes	Yes	
22ME2D13T	Industry 4.0			Yes	Yes	
22MVE31T	Algorithms for VLSI Design Automation			Yes	Yes	
22MVE32N	Internship			Yes	Yes	
22MVE33P	Minor Project			Yes	Yes	
22MVE3E1T	VLSI Testing	Yes	Yes	Yes	Yes	
22MVE3E2T	High Speed Digital Design	Yes	Yes	Yes	Yes	
22MVE3E3T	RFIC Design			Yes	Yes	
22MVE3E4T	Signal Processing & ML on Microcontrollers			Yes	Yes	
22MVE3E5T	MEMS and Smart Systems			Yes	Yes	
22MVE41P	Major Project			Yes	Yes	
22HSS42	Professional Skills Development-II			Yes	Yes	

<b>Course Code</b>	G TVI		NEEDS ADDRESSED		
	Course Title	Local	Regional	National	Global
	MTECH – COMMUNICATION	SYSTE	MS		
	Link to the relevant docun				
	MCS1_compressed.pdf (rvce.e	edu.in)		_	
22MAT11DT	Statistical Learning for Communication	Yes	Yes	Yes	Yes
22MCS12TL	Advanced Communication Systems-			Yes	Yes
22MCS13T	Communication Networks and Protocols	Yes	Yes	Yes	Yes
22MCS14L	Programming and Network Simulation Lab	Yes	Yes	Yes	Yes
22MCS1A1	Advanced Embedded Computing Devices			Yes	Yes
2MCS1B1	T Digital System Design Using HDL		l	Yes	Yes
22MCS1A2T	Multirate Systems and Filter Banks		l.	Yes	Yes
22MCS1B2T	Multimedia Communication and Networking			Yes	Yes
22MVE1A3T	VLSI Digital Signal Processing			Yes	Yes
22MCS1B3T	Optical Communications and Networks			Yes	Yes
22IM21T	Research Methodology			Yes	Yes
22MCS22TL	Advanced Communication Systems-2			Yes	Yes
22MCS23T	Smart Antennas and Algorithms			Yes	Yes
22MCS24L	Simulation and Characterisation of RF Devices			Yes	Yes
22HSS25T	Professional Skills Development-I	Yes	Yes	Yes	Yes
22MCS2C1T	Development of Modem SoCs for Wireless, Wireline and IOT applications	Yes	Yes	Yes	Yes
22MDC2C1T	RF and Microwave Circuit Design for Wireless Communication Systems			Yes	Yes
22MVE2C3T	Robotics and Industrial Automation			Yes	Yes
22BT2D01T	Bioinspired Engineering			Yes	Yes
22ET2D08T	Tracking and Navigation Systems			Yes	Yes
22BT2D02T	Health Informatics			Yes	Yes
22IM2D09T	Project Management	Yes	Yes	Yes	Yes
22CS2D03T	Business Analytics			Yes	Yes
22IS2D10T	Database and Information Systems			Yes	Yes
22IS2D11T	Management Information Systems			Yes	Yes
22MAT2D12T	Statistical and Optimization Methods			Yes	Yes
22ME2D13T	Industry 4.0	Yes	Yes	Yes	Yes
22MCS31T	Error Control Coding for Wireless Communication			Yes	Yes
22MCS32N	Internship			Yes	Yes
22MCS33P	Minor Project			Yes	Yes
22MCS3E1T	Next Generation Wireless LANs			Yes	Yes
22MCS3E2T	Cyber Security			Yes	Yes
22MCS3E3T	Modern Radar Systems			Yes	Yes

Course Code	C TOTAL		NEEDS ADDRESSED		
Course Code	Course Title	Local	Regional	National	Global
22MCS41P	Major Project			Yes	Yes
22HSS42	Professional Skills Development-II	Yes	Yes	Yes	Yes
	MTECH - COMPUTER SCIENCE AND	ENGI	NEERING		
	Link to the relevant docum MCE1 compressed.pdf (rvce.e				
22MAT11BT	Linear Algebra, Probability and Queuing Theory	Yes	Yes	Yes	Yes
22MCE12TL	Advanced Data Structures and Algorithms	Yes	Yes	Yes	Yes
22MCE13T	Advances in Data Base Management & Mining	Yes	Yes	Yes	Yes
22MCE14L	Computing & Analytics Lab	Yes			
22MCE1A1T	Artificial Intelligence & Machine Learning	Yes	Yes	Yes	Yes
22MCN1A2T	Blockchain Technologies	Yes	Yes	Yes	Yes
22MIT1A3T	Mobile Application Development	Yes	Yes	Yes	Yes
22MCE1A4T	Computer Vision	Yes	Yes	Yes	Yes
22MCN1B1T	Social Network Analysis	Yes	Yes	Yes	Yes
22MCN1B2T	Distributed and Cloud Computing	Yes	Yes	Yes	Yes
22MCN1B3T	Software Defined Networks	Yes	Yes	Yes	Yes
22MCE1B4T	Computer Network Technology	Yes	Yes	Yes	Yes
22IM21T	Research Methodology	Yes	Yes	Yes	Yes
22MCE22TL	Advances in Operating System	Yes	Yes	Yes	Yes
22MCE23T	Deep Learning	Yes	Yes	Yes	Yes
22MSE2C1T	Robotic Process Automation	Yes	Yes		
22MCE2C2T	Embedded Systems	Yes	Yes		
22MCE2C3T	Natural Language Processing	Yes	Yes	Yes	Yes
22MCN2C4T	Internet Of Things and Edge Computing	Yes	Yes	Yes	Yes
22CS2D03T	Business Analytics	Yes	Yes		
22MCE24L	Web Application Development Lab	Yes			
22HSS25T	Professional Skills Development-I	Yes			
22MCE31T	High Performance Computing Architectures	Yes	Yes	Yes	Yes
22MIT3E1T	Augmented Reality & Virtual Reality	Yes	Yes	Yes	Yes
22MCE3E2T	Cyber Security	Yes	Yes	Yes	Yes
22MCE3E3T	Software Product Development (Devops)	Yes	Yes		
22MCE3E4T	Intelligent Systems	Yes	Yes	Yes	Yes
22MCE32N	Internship	Yes	Yes	Yes	Yes
22MCE33P	Minor Project	Yes	Yes		
22MCE41P	Major Project	Yes	Yes	Yes	Yes
22HSS42	Professional Skills Development-II	Yes			



Course Code			NEEDS A	ADDRESSED		
	Course Title	Local	Regional	National	Global	
	MTECH – COMPUTER NETWORK I	ENGIN	EERING			
	Link to the relevant docum MCN1 compressed.pdf (rvce.e			4		
22MAT11BT	Linear Algebra, Probability and Queuing Theory	Yes	Yes	Yes	Yes	
22MCN12TL	Advances in Computer Networks	Yes	Yes	Yes	Yes	
22MCN13T	Information and Network Security	Yes	Yes	Yes	Yes	
22MCN14L	Software Defined Networks Lab	Yes				
22MCE1A1T	Artificial Intelligence & Machine Learning	Yes	Yes	Yes	Yes	
22MCN1A2T	Blockchain Technologies	Yes	Yes	Yes	Yes	
22MIT1A3T	Mobile Application Development	Yes	Yes	Yes	Yes	
22MCN1A4T	Advances in Network Management	Yes	Yes	Yes	Yes	
22MCN1B1T	Social Network Analysis	Yes	Yes	Yes	Yes	
22MCN1B2T	Distributed and Cloud Computing	Yes	Yes	Yes	Yes	
22MCN1B3T	Software Defined Networks	Yes	Yes	Yes	Yes	
22MCN1B4T	Advances in Storage Area Networks	Yes	Yes	Yes	Yes	
22IM21T	Research Methodology	Yes	Yes	Yes	Yes	
22MCN22TL	Network Programming	Yes	Yes	Yes	Yes	
22MCN23T	Advanced Wireless Technologies	Yes	Yes	Yes	Yes	
22MSE2C1T	Robotic Process Automation	Yes	Yes	Yes	Yes	
22MCE2C2T	Embedded Systems	Yes	Yes	Yes	Yes	
22MCN2C3T	Advanced Algorithms	Yes	Yes	Yes	Yes	
22MCN2C4T	Internet Of Things and Edge Computing	Yes	Yes	Yes	Yes	
22CS2D03T	Business Analytics	Yes	Yes			
22MCN24L	Open-Source Simulation Lab	Yes				
22HSS25T	Professional Skills Development-I	Yes				
22MCN31T	Network Routing and Protocols	Yes	Yes	Yes	Yes	
22MIT3E1T	Augmented Reality & Virtual Reality	Yes	Yes	Yes	Yes	
22MCE3E2T	Cyber Security	Yes	Yes	Yes	Yes	
22MCE3E3T	Software Product Development (Devops)	Yes	Yes	Yes	Yes	
22MCE3E4T	Intelligent Systems	Yes	Yes	Yes	Yes	
22MCE32N	Internship	Yes	Yes	Yes	Yes	
22MCE33P	Minor Project	Yes				
22MCE41P	Major Project	Yes	Yes	Yes	Yes	
22HSS42	Professional Skills Development-II	Yes	F 1	The state of the s		

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