ACADEMIC CURRICULA

UNDERGRADUATE INTEGRATED POST GRADUATE DEGREE PROGRAMMES

(With exit option of Diploma)

(Choice Based Flexible Credit System)

Regulations 2021

Volume - 1

(Revised on July 2024)



SRM INSTITUTE OF SCIENCE AND TECHNOLOGY

(Deemed to be University u/s 3 of UGC Act, 1956)
Kattankulathur, Chengalpattu District 603203,
Tamil Nadu, India



SRM INSTITUTE OF SCIENCE AND TECHNOLOGY Kattankulathur, Chengalpattu District 603203, Tamil Nadu, India

46. B.Tech. in Mechatronics Engineering with Specialization in Robotics

46. (a) Mission of the Department

| Mission Stmt – 1 | To impart the principles of Mechatronics Engineering to produce engineers who are capable of competing on the global stage. |
|------------------|---|
| Mission Stmt – 2 | To excel at solving multidisciplinary challenges through structured teaching-learning methods and by providing state-of-the-art facilities. |
| | To cultivate future leaders with a strong sense of integrity, communication, teamwork, and entrepreneurship |

46. (b) Program Educational Objectives (PEO)

| PEO – 1 | Graduates will demonstrate a commitment to lifelong learning and career growth through participation and leadership in professional societies and organizations |
|---------|---|
| | Graduates will advance professionally with a competency to solve challenges in industry, research, and academia leading to sustainable development of the society |
| PEO – 3 | Graduates will be capable of solving ever-evolving-complex-system-integration problems through inter-disciplinary approaches. |
| PEO – 4 | Graduates will be versatile in dealing with systems from a variety of modern engineering and technology fields with ease. |

46. (c) Mission of the Department to Program Educational Objectives (PEO) Mapping

| / 6 / | 1 | Mission Stm | t 1 | Mission Stmt 2 | М | ission Stmt 3 | |
|---------|---|-------------|-----------------|------------------|-------|---------------|--|
| PEO - 1 | - | 2 | of the state of | | | _ 3 | |
| PEO - 2 | 1 | 3 | C 10 10 10 | STORY OF LARREST | | 2 | |
| PEO - 3 | | 3 | 100 | 3 | | | |
| PEO - 4 | | - | NAME OF | 3 | 200 m | 4 | |

^{3 –} High Correlation, 2 – Medium Correlation, 1 – Low Correlation

46. (d) Mapping Program Educational Objectives (PEO) to Program Outcomes (PO)

| | | - 0 | W/ | 75. | Pro | gram Ou | tcomes (| PO) | | 2.7 | rud. | | Prog | ram Spe | ecific | |
|---------|--------------------------|------------------|---------------------------------|--|-------------------|--------------------------|---------------------------------|--------|---------------------------|---------------|------------------------|--------------------|-------|-----------------------------|--------|--|
| | 1 | 2 | 3 | 4 | 5 | - 6 | 7 | 8 9 | | 10 11 | | 12 | Outo | Outcomes (PS <mark>O</mark> | | |
| | Engineering Knowledge | Problem Analysis | Design/development of solutions | Conduct investigations of complex problems | Modern Tool Usage | The engineer and society | Environment & Sustainability | Ethics | Individual & Team Work | Communication | Project Mgt. & Finance | Life Long Learning | PS0-1 | PSO-2 | PSO-3 | |
| PEO - 1 | - | - | 7-1 | 17 | χ -D | 1 | 1 | 2 | - | 2 | - | 1- | > - / | 3 | | |
| PEO - 2 | 3 | , | 1 | 3 | 3 | 3 | 3 _ | 3 | 2 | 2 | 3 | 1 | 3 | 2 | 3 | |
| PEO - 3 | 3 | 3 | 3 | - 3 | 3 | 2 | 1 | | 3 | 3 | 2 | 1 | 3 | 2 | - | |
| PEO - 4 | 3 | 3 | 2 | 1 | 3 | 1 | - | - | 1 | 1 | - | <i>,</i> - | 2 | 2 | 2 | |

^{3 –} High Correlation, 2 – Medium Correlation, 1 – Low Correlation

PSO – Program Specific Outcomes (PSO)

| PSO - 1 | Graduates will apply scientific principles for modelling and simulation of multi-disciplinary engineering systems |
|---------|---|
| PSO - 2 | Graduates will be able to interpret specifications of elements to design and develop an integrated system |
| PSO - 3 | Graduates will be able to control Robotics systems using modern programming tools |

46. (e) Program Structure: B.Tech. in Mechatronics Engineering with Specialization in Robotics

| | Humanities & Social Sciences | | | | | | Basic Science Courses (B) | | | | |
|--|--|----------|--|------|-----------|--|---|-----------|------|------|----|
| | including Management Courses (H) | | | | | Course | Course | | ours | | |
| Course | Course | | ours | | | Code | Title | . \ | Vee | | |
| Code | Title | _ \ | Nee | | | | | L | T | P | C |
| | | L | T | P | С | | Calculus and Linear Algebra | 3 | 1 | 0 | 4 |
| | Communicative English | 2 | 1 | 0 | 3 | 21CYB101J | | 3 | 1 | 2 | 5 |
| 21LEH102T | | 4 | | | | 21BTB103T | Biology | 2 | 0 | 0 | 2 |
| 21LEH103T | | - | | | | | Advanced Calculus and Complex Analysis | | 1 | 0 | 4 |
| 21LEH104T | | ١, | 1 | 0 | 2 | | Physics: Mechanics | 3 | 1 | 2 | 5 |
| 21LEH105T | | 2 | 1 | 0 | 3 | | Transforms and Boundary Value Problems | 3 | 1 | 0 | 4 |
| 21LEH106T 21LEH107T | | - | | | | | | 3 | 1 | 0 | 4 |
| 21LEH1071 | | - | 21MAB202T Numerical Methods 21MAB301T Probability and Statistics | | | | | 3 | 0 | 4 | |
| | Philosophy of Engineering | 1 | Λ | 2 | 2 | ZIWADSUII | | ા otal | Cro | dita | 22 |
| | Social Engineering | 2 | 0 | 0 | 2 | | | Ulai | CIE | นแจ | JZ |
| | Behavioral Psychology | 2 | 1 | 0 | 3 | | Professional Core Courses (C) | | | | |
| 21011114011 | | otal | | · | - | Course | Course | | ours | | |
| | | Ulai | CIE | uits | 13 | | | ١ | Vee | | ļ |
| | Professional Elective Courses (E) | | | | | Code | Title | L | Τ | Р | С |
| | (Any 7 Courses) | | | | | 21MHC101P | | 2 | 1 | 0 | 3 |
| Course | Course | | ours | | | 21MHC201T | | 3 | 0 | 0 | 3 |
| Code | Title | <u>۱</u> | Veel T | | | 21MHC202J | | 2 | 0 | 2 | 3 |
| | <u> </u> | L | ı | Р | С | 21MHC203J | | 2 | 0 | 2 | 3 |
| 04141154541 | Professional Elective -1 | 1 2 | Λ | 1 | 1 | 21MHC204L | Electrical Actuators and Drives | 0 | 0 | 2 | 1 |
| | Manipulator Robotics | 2 | 0 | 2 | 3 | | Laboratory | ľ | Ĺ | | ı. |
| ZTMHE45ZL 1 | Computational Thinking Laboratory Professional Elective - 2 | 0 | U | D | 3 | 21MHC205T | | 3 | 0 | 0 | 3 |
| 24141154521 | 2 | Λ | 2 | 2 | 21MHC206T | | 3 | 0 | 0 | 3 | |
| 21MHE453J | 2 | 0 | 2 | 3 | 21MHC207L | Microcontroller and Embedded Systems | 0 | 0 | 2 | 1 | |
| 21MHE454J Ground mobile Robotics Professional Elective - 3 | | | | | J | | Laboratory | | | | |
| OANALIE AEET | Robot Control | 2 | 0 | 0 | 3 | 21MHC208L | Mechanics of Solids and Fluids Laboratory | 0 | 0 | 2 | 1 |
| | Vision Guided Robots | 2 | 0 | 2 | 3 | | Project Management and Industrial | | | | |
| 21MHE430J | Professional Elective - 4 | | U | | J | 21MHC209T | Practices | 2 | 1 | 0 | 3 |
| 21MHE457L1 | Robot Programming | 0 | 0 | 5 | 3 | 21CSC206T | | 2 | 1 | 0 | 3 |
| | Model Based System Engineering for | | | | | 21MHC301T | | 3 | 0 | 0 | 3 |
| 21MHE458T | Robotics | 3 | 0 | 0 | 3 | | Docian and Analysis of Machino | | | | |
| | Professional Elective - 5 | 1 | | | | 21MHC302J | Elements | 2 | 0 | 2 | 3 |
| | Planning and Decision Making in | | | | | 21MHC303J | | 2 | 0 | 2 | 3 |
| 21MHE459J | Robotics | 2 | 0 | 2 | 3 | 21MHC304L | | 0 | 0 | 2 | 1 |
| 21MHE460T | | 3 | 0 | 0 | 3 | 21MHC305J | | 2 | 0 | 2 | 3 |
| | Professional Elective - 6 | | | | | | Vinamatic Analysis and Dynamics of | 1 | | | |
| 21MHE461J | Al for Perception Planning and Control | 2 | 0 | 2 | 3 | 21MHC306T | Mechanisms | 3 | 0 | 0 | 3 |
| | Advanced Dynamical Systems | 3 | 0 | 0 | 3 | 21MHC307P | Model Based Systems Engineering | 1 | 2 | 0 | 3 |
| | Professional Elective - 7 | | | | | | | otal | Cre | dits | 46 |
| 21MHE463T | Soft Robotics | 3 | 0 | 0 | 3 | | Non Credit Courses (M) | | | | |
| | 21MHE464T Introduction to Marine and Aerial | | | | | | | Н | ours | 1 | |
| 21WITE4041 | Robotics | | | | | Course | Course | | Veel | | |
| | | | | | 21 | Code | Title | L | Т | Р | С |
| | | | | | | 21PDM101L 1 | Professional Skills and Practices | 0 | 0 | 2 | |
| | | | | | | | General Aptitude | 0 | 0 | 2 | |
| | Open Elective Courses (O) | | | | | | Verbal Reasoning | 0 | 0 | 2 | _ |
| | Onen Flective Courses (O) | | | | | | | 0 | 0 | 2 | 0 |
| | | | | | | 21PDM202L ¹ | Critical and Creative Thinking Skills | U | | | |
| | (Any 3 Course) | Но | ure | 1 | | | Critical and Creative Thinking Skills Analytical and Logical Thinking Skills | 0 | 0 | | |
| Course | (Any 3 Course) Course | | urs i | | | 21PDM301L 1 | Analytical and Logical Thinking Skills | | _ | 2 | |
| Course Code | (Any 3 Course) | W | eek | | С | 21PDM301L ¹ 21PDM302L ¹ | Analytical and Logical Thinking Skills Employability Skills and Practices | 0 | 0 | 2 | 0 |
| Code | (Any 3 Course) Course | W L | eek T | P | C 3 | 21PDM301L ¹ 21PDM302L ¹ | Analytical and Logical Thinking Skills Employability Skills and Practices Environmental Science | 0 | 0 | 2 | 0 |

| \neg | DALEMODAT 1 | Desta asianal Ettaia | - 1 | Λ | Λ | Λ |
|--------|------------------------|------------------------------|--------------|------|------|----|
| | 21LEM2011 1 | Protessional Etnics | 1 | U | U | U |
| | | Universal Human Values-II: | | | | |
| | 21LEM202T ¹ | | 2 | 1 | 0 | 3 |
| | | | | | | |
| | | | 1 | 0 | 0 | 0 |
| | | | 1 | 0 | 0 | 0 |
| | | | | | | |
| | | | 0 | ٥ | 2 | 0 |
| | | | | U | | |
| | 21GNM104L 1 | National Sports Organization | | | | |
| | | | Total | Cred | dits | 03 |

| | Engineering Science Courses (S) | | | | |
|----------------|--|--------------|--------------|------|----|
| Course Code | Course Title | | ours Veel | | |
| Code | Tiue | L | Т | Р | С |
| 21CSS101J | Programming for Problem Solving | 3 | 0 | 2 | 4 |
| 21MES101L 1 | Basic Civil and Mechanical Workshop | 0 | 0 | 4 | 2 |
| 21MES102L 1 | Engineering Graphics and Design | 0 | 0 | 4 | 2 |
| 21EES101T | Electrical and Electronics Engineering | 3 | 1 | 0 | 4 |
| 21MHS201T | Thermodynamics and Heat Transfer | 3 | 0 | 0 | 3 |
| 21DCS201P 1 | Design Thinking and Methodology | 1 | 2 | 0 | 3 |
| 21CSS303T | Data Science | 2 | 0 | 0 | 2 |
| | 7 | Total | Cre | dits | 20 |
| | | | | - | 7 |

| | Project Work, | Seminar, Internship in Industry / Hi Institutions (P) | ghe | r Te | chnic | al |
|---|------------------------|--|-----|--------------|-------|----|
| | Course | Course | | lours Wee | | |
| 1 | Code | Title | L | T | Р | С |
| | 21GNP301L 1 | Community Connect | 0 | 0 | 2 | 1 |
| | 21MHP302L 1 | Project | 0 | 0 | 6 | 3 |
| | 21MHP303T ¹ | MOOC | 3 | 0 | 0 | 3 |
| I | 21MHP401L | Major Project | 0 | 0 | 30 | 15 |
| 1 | 21MHP402L | Major Project | 0 | 0 | 20 | 10 |
| | 21MHP403L | Internship# | 0 | 0 | 10 | 5 |
| | | | ota | l Cre | dits | 19 |



46. (f) Programme Articulation: B.Tech. in Mechatronics Engineering with Specialization in Robotics

| | | | | | P | rogra | ım Ou | tcome | s (PO |)) | | | | | PSO | |
|--------------------------|---|-----------------------|------------------|---------------------------------|--|-------------------|--------------------------|------------------------------|--------|------------------------|---------------|------------------------|--------------------|-------|-------|----------|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 1 | 2 | 3 |
| Course Code | Course Name | Engineering Knowledge | Problem Analysis | Design/development of solutions | Conduct investigations of complex problems | Modern Tool Usage | The engineer and society | Environment & Sustainability | Ethics | Individual & Team Work | Communication | Project Mgt. & Finance | Life Long Learning | PSO-1 | PSO-2 | PSO-3 |
| | Thermodynamics and Heat Transfer | 1 | 2 | | | 2 | H 71 | - | - | - | - | - | - | - | - | - |
| 21MHC101P | Elements of Mechatronics Systems | 3 | 3 | - | - | - | - | , a | - | - | - | - | - | - | - | - |
| 21MHC201T | Electrical Actuators and Drives | 3 | 2 | 2 | - | - | | - | 42.0 | | - | - | - | - | 1 | 2 |
| 21MHC202J | Analog and Digital Electronics | 3 | 2 | 2 | - | - | - | - | | | ' | - | - | - | 2 | - |
| 21MHC203J | Fluid Power System and Automation | 3 | 2 | 2 | 1-6 | 1 | - | - | - | | T. B. | - | - | - | 1 | 2 |
| 21MHC204L | Electrical Actuators and Drives Laboratory | 3 | 2 | _ 2 | 7 - | - 1 | 4- | - | - | - | | U | - | - | - | - |
| 21MHC205T | Microcontroller and Embedded Systems | 3 | - | 2 | - | 1 | - Jan | | 4 | - | | - | | - | - | 2 |
| 21MHC206T | Mechanics of Solids and Fluids | 3 | 3 | 2 | - | - | - | 4 | | - | - | 4- | 4- | - | - | - |
| | Mechanics of Solids and Fluids Laboratory | 3 | 3 | 2 | - | - | | - | Τ. | / - 1 | - | - 1 | - | - | - | - |
| | Microcontroller and Embedded Systems Laboratory | 3 | 1 | 2 | | 1 | - | 1 | | 7 | 2 | - | ١. | | 1 | 2 |
| 21MHC2091 | Project Management and Industrial Practices | | | | id. | 2 | - | • | | M | 4 | 3 | - | 1 | | |
| 21CSC206T | Artificial Intelligence | 10 | 27 | 2.54 | 1 | - | - | - | - | - | | 7 | ٦ - | | ÷ | |
| 21MHC301T | System Dynamics and Control | 3 | 2 | 2 | 4 | Ė | | 1- | - | - | - | - | 7 | 3 | | 2 |
| 21MHC302J | Design and Analysis of Machine Elements | 3 - | 3 | 2 | 1 | 2 | 200 | - | - | - | - | - | - | 2 | 2 | - |
| 2 <mark>1MHC30</mark> 3J | Measurement, Sensors and Interfaces | 3 | 1 | 2 | - | 4.70 | 1 | · | - | - | | - | | 1 | | - |
| 21MHC304L | Modelling and Control Laboratory | 2 | 2 | 3 | 7 | 2 | - | | ÷ | | - | | - 7 | 3 | | 2 |
| | Manufacturing Processes | 3 | 2 | 1 | 3 | | | - | 7 | 77 | | - | F | | - | - |
| 21MHC3001 | Kinematic Analysis and Dynamics of Mechanisms | 1 | 2 | | 177 | 3 | - 10 - 10 - 10 | Å. | .7 | -,1 | Į. | - | Ē | 5- | - | - |
| | Model Based Systems Engineering | 3 | 3 | 120 | 2 | 1 | 1 | 1 | 4 | 1 | - | - | - | 2 | 2 | - |
| | Manipulator Robotics | 2 | - | 7- | ÷ | 2 | - | | 4 | 100 | - | - | - | 3 | - | 2 |
| | Computational Thinking Laboratory | 3 | į. | 2 | i i | 2 | - | į | | - | - | - | - | 2 | - | <u> </u> |
| 21MHE453J | Mechanics of Manipulation | 3 | 2 | 2 | | 4 | 100 | - | - | - | - | - | | 2 | - | <u> </u> |
| 21MHE454J | Ground mobile Robotics | 3 | 3 | 2 | | 7 | , Table | | - | - | - | - | - | | 3 | 2 |
| 2 <mark>1MHE45</mark> 5T | Robot Control | 3 | 2 | H-F | | - | - | - | - | - | | | - 1 | 1 | - 1 | - |
| 2 <mark>1MHE45</mark> 6J | Vision Guided Robots | 3 | 2 | 2 | - | 2 | - | • | • | - | - | - 1 | - | 2 | - | - |
| 21MHE457L | Robot Programming | 3 | 2 | 3 | - | 2 | - | - | - | - | 7- | - | - | - / | | 3 |
| 21MHE458T | Model Based System Engineering for Robotics | 3 | 3 | di, | | 2 | - | - | - | 7/ | ا مستر | <i>1</i> - | ٧. | 2 | 2 | 2 |
| 21MH <mark>E459</mark> J | Planning and Decision Making in Robotics | 3 | | 7-1 | 7 | 2 | - | - | - | | -/ | - | - | 1 | 1 | 1 |
| | Advanced Robotics | 3 | 1 | - | | | - | - | - | - | , A. | - | -/ | 1 | 1 | |
| 21MHE461J | Al for Perception Planning and Control | 3 | 2 | 2 | - | 1 | - | - | - | - | - | 72 | - | - | 2 | 2 |
| 21MHE462T | Advanced Dynamical Systems | 3 | - | T | 4-7 | 20 | - | -1 | 4 | 1-7 | 1 | - | | | 1 | |
| 21MHE463T | Soft Robotics | 1 | 2 | 3 | 1. | - | - | | 7-5 | IJ | - | - | | _ | - | - |
| | Introduction to Marine and Aerial Robotics | 3 | _ | Ť | | | _ | - | - | | ٠., | | - | 2 | - | - |
| | Program Average | | | | | | | | | | | | | _ | | |

46. (g) Implementation Plan: B.Tech. in Mechatronics Engineering with Specialization in Robotics

| Course | | | Semester - I | | | | | | Semester - II | | | | | |
|--|--|------------------|-------------------------------------|------|------|------|----|------------------------|-------------------------------------|----------|------|-----------|----|--|
| Title | Course Course Week Code Title Week Code Title | | | | | | | | | | | | | |
| 21LEH101T Communicative English | | - | | ٧ | Veel | k | | | | V | Neek | K | | |
| 21MB1017 Calculus and Linear Algebra 3 1 0 4 2 21LEH103T French 21LEH105T Calculus and Linear Algebra 3 1 0 4 2 21LEH105T Calculus and Electrical and | Code | € | Litle | L | Т | Р | С | Code | Litle | L | Τ | Р | С | |
| 21PMS1010_ Physics Mechanics 3 1 2 5 21EEH104T German 21EEH107T German 21EES1017T Germa | 1LEH1 | 01T | Communicative English | 2 | 1 | | 3 | 21LEH102T | Chinese | | | | | |
| 21PMS1010_ Physics Mechanics 3 1 2 5 21EEH104T German 21EEH107T German 21EES1017T Germa | 1MAB1 | 101T | Calculus and Linear Algebra | 3 | 1 | 0 | | 21LEH103T | French | | | | | |
| | PYB1 | | | 3 | 1 | 2 | 5 | 21LEH104T | German | | | | | |
| | 1MES10 | 02L ¹ | Engineering Graphics and Design | 0 | 0 | | 2 | | Japanese | 2 | 1 | 0 | 3 | |
| 21EM10171 Environmental Science | | | | | | 0 | | | | | | | | |
| | | | | | 0 | | 0 | | | | | | | |
| Total Credits 18 | | | | 0 | | | | | | | | | | |
| Semester - III | | | | 1 | _ | | | | | 1 | 0 | 2 | 2 | |
| Semester - III | | | | otal | | , | | | | | | | | |
| Course Course Course Course Title L T P C 21MAB201T Transforms and Boundary Value Problems 3 1 0 4 Problems 21MHC202T Electrical Actuators and Drives 3 0 0 3 21MHC202J Fluid power system and Automation 2 0 2 2 3 21MHC203J Fluid power system and Automation 2 0 2 2 3 21MHC203J Fluid power system and Automation 2 0 2 2 3 21MHC203J Fluid power system and Automation 2 0 2 2 3 21MHC203J Fluid power system and Automation 2 0 2 2 3 21MHS201T Thermodynamics and Heat Transfer 3 0 0 3 2 2 3 2 2 3 2 2 3 2 2 | | | | | | | | 21MAB1021 | | 3 | 1 | 0 | 4 | |
| Course C | | | Semester - III | | | . / | | 21CYB101J | | 3 | 1 | 2 | 5 | |
| Code | Cour | rse | Course | | | | | 21MHC101P 1 | Elements of Mechatronics systems | 2 | 1 | 0 | 3 | |
| 21MAB201T | Cod | de | Title | \ | _ | | _ | | | 3 | 0 | 2 | 4 | |
| 21MAB201T Professional Elective - IV 21MHC201T Indian Art Form 1 0 0 0 0 0 0 0 0 0 | | | | L | ı | Р | C | | | | 0 | 0 | 2 | |
| 21MHC2021 | 21MAB | 201T | | 3 | 1 | 0 | 4 | | | _ | 0 | 4 | 2 | |
| 21MHC201 | | | Problems | | | | | | | | 0 | 2 | 0 | |
| 21MHC204_ Electrical Actuators and Drives 2 0 2 2 3 21MHC204_ Electrical Actuators and Drives 2 0 0 2 1 21MHC204_ Electrical Actuators and Drives 2 0 0 0 2 1 21PDM209T Social Engineering 2 0 0 0 2 2 21PDM201L Verbal Reasoning* 0 0 2 2 2 2 0 0 0 2 2 | | | | | _ | | | | | | Ť | | Ť | |
| 21MH20201 | | | | | | | | | | | | | | |
| 21MHC204L Electrical Actualors and Drives Laboratory 21PDH209T Social Engineering 2 0 0 2 1 21PDH209T Social Engineering 2 0 0 2 0 21PDH209T Social Engineering 2 0 0 0 0 0 0 0 0 0 | | | | 2 | | | 3 | | | 0 | 0 | 2 | 0 | |
| 21MHC204L | <u> 21MHS</u> | 201T | | 3 | 0 | 0 | 3 | | | | | | | |
| Social Engineering | 1MHC2 | 2041 | | 0 | 0 | 2 | 1 | ZTONWTOTE | | tal | Crec | lite | 25 | |
| Professional Ethics | | | Laboratory | | | | | | | · | 0100 | 1110 | | |
| 21PDM201L Verbal Reasoning* | | | | _ | _ | | _ | | Semester - IV | | | | 1 | |
| Universal Human Values-II: Understanding Harmony and Ethical L T V C Total Credits Z2 Z1MHC205T Microcontroller and Embedded Systems 3 0 0 0 0 0 0 0 0 0 | | | | | _ | 0 | | Course | Course | | | | | |
| 21LEM202T Understanding Harmony and Ethical 2 1 0 3 | 21PDM2 | 201L | | 0 | 0 | 2 | 0 | Code | Title | <u> </u> | | | | |
| Human Conduct | | | | | | | _ | 04144 D000T | A | L | | Ь | С | |
| Course Code | ETELINEDET ON CONTROL TO THE TELEVISION OF THE T | | | | | | | | | | | 0 | 4 | |
| Course | | | | | | | | | | | - | 0 | 3 | |
| Course | | | T | otal | Cre | dits | 22 | | | | | 0 | 3 | |
| Course | | | Semester - V | | | | | 21MHC2061 | | 3 | 0 | 0 | 3 | |
| Code | Carre | | Course | Н | ours | s / | | 21MHC207L 1 | | 0 | 0 | 2 | 1 | |
| 21MAB301T | | | | ١ | Vee | k | | | Laboratory | | | | | |
| 21MAB301T | Cou | ie | riue | L | Τ | Р | С | 21MHC208L 1 | | 0 | 0 | 2 | 1 | |
| 21MHC303J Measurement, Sensors and Interfaces 2 0 2 3 2 2 3 2 2 3 2 2 | 21MAB | 301T | Probability and Statistics | 3 | 1 | 0 | 4 | | | | | | | |
| 21MHC303J Measurement, Sensors and Interfaces 2 0 2 3 21MHC302J Design and Analysis of Machine Elements 2 0 2 3 21DCS201P Design Thinking and Methodology 1 0 0 0 0 0 0 0 0 0 | 21MHC | 301T | System Dynamics and Control | 3 | 0 | 0 | 3 | 21MHC209T | | 2 | 1 | 0 | 3 | |
| 21MHC302J Design and Arraysis of Machine 2 0 2 3 21DCS201P Design Thinking and Methodology 1 0 21PDM301L Open Elective - II 3 0 0 3 3 21PDM301L Analytical and Logical Thinking Skills* 0 0 2 1 21GNP301L Community Connect Title Code Co | 21MHC | 303J | Measurement, Sensors and Interfaces | 2 | 0 | 2 | 3 | | | 2 | ^ | 0 | 2 | |
| Professional Elective - II | 211111 | ו כחכי | Design and Analysis of Machine | 2 | 0 | 2 | 2 | 0400000401 | | _ | | 0 | 3 | |
| Total Cre Tot | Z TIVII TO | /3023 | Elements | 2 | U | | | | | _ | | 4 | 3 | |
| 21MHC304L Modelling and Control Laboratory 0 0 2 1 | | | Professional Elective – II | | | | | Z IPDIVIZUZL I | | · | • | 2 dita | 0 | |
| Course Code Title Course Cour | | | Open Elective – I | 3 | 0 | - | - | | | ıaı | огес | JITS | | |
| Course Code Code Title Community Connect Code Code | | | | | | 2 | | | Semester - VI | | | | | |
| Code | | | | 0 | | 2 | 0 | Course | Course | | | | | |
| Course Code Title Titl | 21/ EM201T 1 Indian Art Form 1 0 0 0 Course W | | | | | | | | | | | | | |
| Total Credits 21 21CSS303T Data Science 2 0 | 21GNP301L Community Connect 0 0 2 1 | | | | | | | | | | Τ | Р | С | |
| Course Code | | | | otal | Cre | dits | 21 | | | | 0 | 0 | 2 | |
| Course Code Course Title Hours / Week L L T P C 21MHC307P¹ Model Based Systems Engineering 1 2 2 1MHC307P¹ Model Based Systems Engineering 1 2 2 2 1 0 3 21GNH401T Behavioral Psychology 2 1 0 3 2 2 1 0 3 21MHP302L¹ Project 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | | | | | | | | 21MHC305J | | 2 | 0 | 2 | 3 | |
| Course Code | | | Semester - VII | | | | | 21MHC306T | | .3 | 0 | 0 | 3 | |
| Code | Cours | se | Course | | | | | | | | · | | | |
| C I P C Professional Elective - III 3 0 0 | | | | . V | | | | 21MHC307P 1 | | | | 0 | 3 | |
| Professional Elective – IV 3 21MHP303T MOOC 3 0 | | | | L | | | _ | | | | | 0 | 3 | |
| Professional Elective – V 3 O Open Elective – II 3 0 | 1GNH4 | 101T | Behavioral Psychology | 2 | 1 | 0 | | | | | 0 | 6 | 3 | |
| Professional Elective – VI 3 21PDM302L 1 Employability Skills and Practices* 0 0 | | | | | | | | 21MHP303T ¹ | MOOC | | 0 | 0 | | |
| | | | | | | | | | | _ | 0 | 0 | 3 | |
| Professional Elective – VII 3 21LEM302T Indian Traditional Knowledge 1 0 | | | | | | | | | Employability Skills and Practices* | 0 | 0 | 2 | 0 | |
| | | | | | | | | 21LEM302T ¹ | Indian Traditional Knowledge | 1 | 0 | 0 | 0 | |
| O Open Elective – III 3 0 0 3 Total Cre | 0 | | | _ | • | Ů | _ | | To | otal | Cred | lits | 20 | |
| Total Credits 18 | | | T- | otal | Cre | dits | 18 | | | _ | | | | |

| | Semester - VIII | | | | |
|-----------|-----------------|------|---------------|------|----|
| Course | Course | | Hours Weel | | |
| Code | Title | L | Τ | Р | С |
| 21MHP401L | Major Project | 0 | 0 | 30 | 15 |
| 21MHP402L | Major Project | 0 | 0 | 20 | 10 |
| 21MHP403L | Internship# | 0 | 0 | 10 | 5 |
| | | Tota | l Cre | dits | 15 |

#Students have to register either 21MHP401L or 21MHP402L and 21MHP403L both in eighth semester





SRM INSTITUTE OF SCIENCE AND TECHNOLOGY

(Deemed to be University u/s 3 of UGC Act, 1956)

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