Minutes of the

66th Meeting of the Academic Council

held on

16th June 2022

VIT®
Vellore Institute of Technology
(Deemed to be University under section 3 of UGC Act, 1956)

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Minutes of the 66th Meeting of the Academic Council

(16th June 2022 | 10.30 AM | Vellore Campus)

Members Present:

1. Dr. Rambabu Kodali, Vice-Chancellor, Chairperson
2. Dr. S. Narayanan, Pro-Vice Chancellor
3. Dr. V.S. Kanchana Bhaaskaran, Pro-Vice Chancellor
4. Mr. Lawrence Mohanraj, IBM India Pvt. Ltd, Chennai
5. Dr. M. Anthony Xavior, Dean Academics, Vellore Campus
6. Dr. A. Nayeemulla Khan, Dean Academics, Chennai Campus
7. Dr. R. Murugavel, Controller of Examination
8. Dr. N. Arunai Nambiraj, Dean, School of Advanced Sciences, Vellore Campus
9. Dr. R. Siva, Dean, School of Biosciences and Technology, Vellore Campus
10. Dr. A.S. Santhi, Dean, School of Civil Engineering, Vellore Campus
11. Dr. L. Muruganandam, Dean, School of Chemical Engineering, Vellore Campus
12. Dr. Ramesh Babu K, Dean, School of Computer Science and Engineering, Vellore Campus
13. Dr. Mathew M. Noel, Dean, School of Electrical Engineering, Vellore Campus
14. Dr. S. Sivanantham, Dean, School of Electronics Engineering, Vellore Campus
15. Dr. S. Sumathy, Dean, School of Information Technology, Vellore Campus
16. Dr. K. Devendranath Ramkumar, Dean, School of Mechanical Engineering, Vellore Campus
17. Dr. M. Manoharan, Dean, School of Social Sciences and Languages, Vellore Campus
18. Dr. S. Babu, Dean, VIT Agricultural Innovations and Advanced Learning, Vellore Campus
19. Dr. Saleem Ahmed, Dean, VIT School of Design, Vellore Campus
20. Dr. A. Madhumathi, Director, School of Architecture, Vellore Campus
21. Dr. C.D. Naiju, Director, Students' Welfare, Vellore Campus
22. Dr. P. Arulmozhivarman, Dean, Academics Research, Vellore Campus
23. Dr. Suvojit Ganguly, Assistant Dean, School of Hotel and Tourism Management, Vellore Campus
24. Dr. V. Samuel Rajkumar, Director, Career Development Centre, Vellore Campus
25. Dr. G. Kalaichelvan, Director, UG Admissions, Vellore Campus
26. Dr. P.C. Sabumon, Dean, Academic Research, Chennai Campus
27. Dr. S. Mahalakshmi, Dean, School of Advanced Sciences, Chennai Campus
28. Dr. R. Ganesan, Dean, School of Computer Sciences and Engineering, Chennai Campus
29. Dr. A. Peer Fathima, Dean, School of Electrical Engineering, Chennai Campus
30. Dr. A. Siva Subramanian, Dean, School of Electronics Engineering, Chennai Campus
31. Dr. M.S. Soundara Pandian, Dean, VIT School of Law, Chennai Campus
32. Dr. Sreekanth Dondapati, Dean, School of Mechanical Engineering, Chennai Campus
33. Dr. S.K. Sudarsanam, Dean, VIT Business School, Chennai Campus
34. Dr. S. Elavenil, Dean, School of Civil Engineering, Chennai Campus
35. Dr. Saradha Rajkumar, Dean, School of Social Sciences and Languages, Chennai Campus
36. Dr. A. Selvakumar, HOD, VIT Fashion Institute of Technology, Chennai Campus
37. Dr. V. Viswanathan, Deputy Controller of Examinations, Chennai Campus
38. Dr. V. Thanikaiselvan, Associate Professor, School of Electronics Engineering, Vellore Campus
39. Dr. A. Raja Annamalai, Associate Professor, Centre for Innovative Manufacturing Research, Vellore Campus
40. Dr. (Ms.) T. Jayabarathi, Registrar, Member Secretary

Leave of Absence:

1. Dr. N. Lalitha, Educational Consultant, Chennai
2. Dr. K. Giridhar, IIT Madras
3. Dr. K.V.S. Hari, IISc, Bangalore
4. Mr. Lakshminarayanan, *Cognizant Digital Engineering Practice, Chennai*
5. Shri. Jaji Vijayaraman, Valeo India Private Limited., Chennai
6. Mr. Arindam Sen, Bangalore, Alumni representative
7. Dr. V. Ramasubramanian, Director, PG Admissions, Vellore Campus
8. Dr. G. Madhumitha, Assistant Professor, School of Advanced Sciences, Vellore Campus
9. Dr. Jagadish Mudiganti, Registrar, VIT-AP University, Special Invitee
10. Ms. Vrushali Deshmukh (19BCE0033) Student Council Member

Item 66/1	**Welcome by Vice Chancellor** Vice Chancellor welcomed all the members of the Academic Council.
Item 66/2	**Remarks by Chancellor** • Honorable Chancellor congratulated the new Registrar, Dr. Jayabarathi, on her new assignment. • VIT remains at the same position in the world ranking since last year. • Appreciated the faculty members who have published research papers in the reputed journals. • Placement record is remarkable.
Item 66/3	To consider and confirm the Minutes of the 65th meeting of the Academic Council. ***(Annexure 1)*** Comments arising out of the minutes of the 65th meeting of the Academic Council are none. **The Academic Council confirmed the above minutes.**
Item 66/4	**Action Taken Report on the suggestion given during the 65th Meeting of the Academic Council held on 17th March 2022:** **The Academic Council suggested to revisit the need for Non-Graded Credit Requirement, and also to revise the programme credit structure of Integrated Master of Science in Biotechnology, Integrated Master of Science in Food Science and Technology, Integrated Master of Science in Physics, Integrated Master of Science in Chemistry and Integrated Master of Science in Mathematics.** **As per the suggestion, the curriculum of Integrated Master of Science programmes is revised.** **The Academic Council considered and approved the same.**
Item 66/5	**To consider and approve the revised programme credit structure and curriculum of Integrated Master of Science in Biotechnology, Integrated Master of Science in Food Science and Technology, Integrated Master of Science in Physics, Integrated Master of Science in Chemistry and Integrated Master of Science in Mathematics.** **The curriculum was approved in the 62nd meeting of the Academic Council held on 15th July 2021 [Item No. 62/26, 62/8, 62/9, 62/10, 62/11].** **However, requested to revisit a) Need for Non-Graded Credit Requirement, b) the overall programme credit structure.** **The revised programme credit structure and curriculum of Integrated Master of Science in Biotechnology, Integrated Master of Science in Food Science and Technology, Integrated Master of Science in Physics, Integrated Master of Science in Chemistry, Integrated Master of Science in Mathematics is enclosed as Annexure 2.** ***(Annexure 2)***

	The Academic Council considered and approved the same.
Item 66/6	**To consider and approve the guidelines for VIT faculty to pursue Master of Technology in Computer Science and Engineering.** ***(Annexure 3)*** **The Academic Council considered and approved the guidelines for VIT faculty to pursue Master of Technology in Computer Science and Engineering and also in the following programmes:** **Master of Technology in Computer Science and Engineering with Specialization in Big Data Analytics** **Master of Technology in Computer Science and Engineering with Specialization in Artificial Intelligence and Machine Learning** **Master of Technology in Computer Science and Engineering with Specialization in Information Security** **Master of Technology in Computer Science and Engineering with Specialization in Cyber Physical Systems**
Item 66/7	**To consider and approve the revised programme credit structure for 2 Years Master of Technology Programmes from Academic Year 2022 -23 onwards.** Programme Credit Structure: Credits Discipline Core Courses: 24 Skill Enhancement Courses: 05 Discipline Elective Courses: 12 / 15 Open Elective Courses: 03 / 00 Project / Internship: 26 Total Graded Credit Requirement: 70 **The Academic Council considered and approved the same.**
Item 66/8	**To consider and approve the new academic programme, curriculum and course contents for Master of Technology in Applied Computational Fluid Dynamics.**

Discipline Core Courses

Course Code	Course Title	L	T	P	C	Prerequisite
MCFD501L	Transport Phenomena	3	0	0	3	NIL
MCFD502L	Advanced Fluid Dynamics	3	0	0	3	NIL
MCFD503L	Advanced Heat Transfer	3	0	0	3	NIL
MCFD504L	Numerical Methods for Partial Differential Equations	3	0	0	3	NIL
MCFD504P	Numerical Methods for Partial Differential Equations Lab	0	0	2	1	NIL
MCFD505P	Computational Fluid Dynamics Lab	0	0	4	2	NIL
MCFD506L	Numerical Solution of the Navier-Stokes Equations	3	0	0	3	NIL
MCFD506P	Numerical Solution of the Navier-Stokes Equations Lab	0	0	2	1	NIL
MCFD507P	Advanced Computational Fluid Dynamics Lab	0	0	4	2	NIL
MCFD508L	Turbulence Modelling	3	0	0	3	NIL
	Discipline Electives					
MCFD601L	Computational Aerodynamics	3	0	0	3	NIL

	MCFD602L	Chemically Reacting Flows - Combustion	2	0	0	2	NIL
	MCFD602P	Chemically Reacting Flows - Combustion Lab	0	0	2	1	NIL
	MCFD603L	Fluid Structure Interaction	3	0	0	3	NIL
	MCFD604L	Experimental methods for Fluid Flow	2	0	0	2	NIL
	MCFD604P	Experimental methods for Fluid Flow Lab	0	0	2	1	NIL
	MCFD605L	Multiphase flows	3	0	0	3	NIL
	MCFD606L	Finite Element Analysis of Solids and Fluids	3	0	0	3	NIL
	MCFD607L	High Performance Computing	2	0	0	2	NIL
	MCFD607P	High Performance Computing Lab	0	0	2	1	NIL
	MCFD608L	Numerical Simulation of Environmental and Atmospheric Flows	3	0	0	3	NIL
	MCFD609L	Modeling and Simulation of Energy Systems	3	0	0	3	NIL
	Skill Enhancement Courses						
	MENG501P	Technical Report Writing	0	0	4	2	NIL
	MSTS501P	Qualitative Skills Practice	0	0	3	1.5	NIL
	MSTS502P	Quantitative Skills Practice	0	0	3	1.5	NIL
	Open Electives						
	MFRE501L	Français Fonctionnel	3	0	0	3	NIL
	MGER501L	Deutsch für Anfänger	3	0	0	3	NIL
	Project and Internship						
	MCFD696J	Study Oriented Project				02	NIL
	MCFD697J	Design Project				02	NIL
	MCFD698J	Internship I/ Dissertation I				10	NIL
	MCFD699J	Internship II/ Dissertation II				12	NIL

(Annexure 4)

The Academic Council considered and approved the same.

Item 66/9	**To consider and approve the revised programme credit structure and curriculum of Master of Technology in Computer Science and Engineering.** **(Annexure 5)** **The Academic Council considered and approved the same.**
Item 66/10	**To consider and approve the revised programme credit structure and curriculum of Master of Technology in Computer Science and Engineering with Specialization in Big Data Analytics.** ***(Annexure 6)*** **The Academic Council considered and approved the same.**
Item 66/11	**To consider and approve the revised programme credit structure and curriculum of Master of Technology in Computer Science and Engineering with Specialization in Information Security.** ***(Annexure 7)*** **The Academic Council considered and approved the same.**
Item 66/12	**To consider and approve the revised programme credit structure and curriculum of Master of Technology in Computer Science Engineering with Specialization in Artificial Intelligence and Machine learning.** ***(Annexure 8)*** **The Academic Council considered and approved the same.**
Item 66/13	**To consider and approve the curriculum of Bachelor of Technology in Manufacturing Engineering for the Diploma Holders of TATA Electronics Private Ltd offered under Blended Learning Mode.** **(Annexure 9)** **The Academic Council considered and approved the same.**
Item 66/14	**To consider and approve the curriculum of Bachelor of Technology in Construction Technology for the Diploma Holders of Larsen & Toubro (L&T) Ltd offered under Blended Learning Mode.**

(Annexure 10)

The Academic Council considered and approved the same.

Item 66/15

To consider and approve the revised programme credit structure, curriculum and course contents for Bachelor of Architecture from 2021 – 22 batch onwards. The curriculum is revised based on the norms of Council of Architecture.

The revised programme credit structure and curriculum of Bachelor of Architecture is given in the annexure 11.

Discipline Core Courses						
Course Code	Course Title	L	T	P	C	Prerequisite
BARC101P	Architectural Design I: Foundation Design Studio	0	0	12	12	NIL
BARC102P	Architectural Graphics	0	0	4	4	NIL
BARC103P	Visual Arts and Communication	0	0	8	8	NIL
BARC104P	Architectural Design II: Spatial Exploration	0	0	12	12	BARC101P
BARC107L	Architectural Design Thinking	2	0	0	2	NIL
BARC201P	Architectural Design III: Rural Environment Studies	0	0	12	12	BARC104P
BARC204P	Architectural Design IV: Midscale Urban Built Forms	0	0	12	12	BARC201P
BARC301P	Architectural Design V: Civic Design	0	0	12	12	BARC204P
BARC305P	Architectural Design VI: Technical Drawings	0	0	12	12	BARC301P
BARC401P	Architectural Design VII: Complex Typologies	0	0	12	12	BARC305P
BARC499J	Architectural Thesis				15	BARC498J
BARC111L	History of Architecture: Ancient	3	0	0	3	NIL
BARC202L	History of Architecture: Medieval to Renaissance	3	0	0	3	BARC111L
BARC302L	History of Architecture : Industrial Era	2	0	0	2	BARC202L
BARC402L	History of Architecture : Contemporary	2	0	0	2	BARC302L
BARC403P	Architectural Design VIII: Urban Design	0	0	12	12	BARC301P
BARC112L	Human Settlements and Vernacular Architecture	3	0	0	3	NIL
BARC303L	Housing	3	0	0	3	BARC201P
BARC203L	Site Planning and Landscape	3	0	0	3	BARC104P
BARC404L	Architectural Specifications and Estimation	3	0	0	3	BARC301P
Building Sciences and Applied Engineering						
BARC105E	Building Materials-Indigenous	1	0	4	5	NIL
BARC106L	Structural Systems Evolution	3	0	0	3	NIL
BARC205E	Construction Technology: Concrete and Steel	1	0	4	5	BARC105E
BARC304E	Construction Technology: Aluminium, Glass and Finishes	1	0	4	5	BARC205E
BARC405L	Construction Technology: Prefab Products and Manufacture	3	0	0	3	BARC304E
BARC207L	Principles of Structures	3	0	0	3	BARC106L
BARC306L	Strength of Materials	3	0	0	3	BARC207L
BARC406L	Architectural Structural Design: Reinforced Concrete	3	0	0	3	BARC306L
BARC410L	Architectural Structural Design: Steel and Timber	3	0	0	3	BARC409L
BARC208L	Climate Responsive Architecture	3	0	0	3	BARC104P
BARC315L	Building Services-I	3	0	0	3	NIL
BARC407L	Building Services-II	3	0	0	3	BARC315L
BARC316P	Building Environment Lab	0	0	4	4	BARC208L
Discipline Electives						
BARC307L	Modern Architectural Thought	3	0	0	3	BARC107L
BARC308P	Interior Design	0	0	4	4	NIL
BARC309L	Art Forms Appreciation	3	0	0	3	NIL
BARC310P	Ideation	0	0	4	4	NIL

BARC408L	Architectural Photography and Journalism	2	0	0	2	BARC305P
BARC409L	Sustainable Architecture	3	0	0	3	BARC208L
BARC411P	Furniture Design	0	0	4	4	NIL
BARC412L	Architectural Conservation	3	0	0	3	BARC201P
BARC413L	Building Systems Integration	3	0	0	3	BARC407L
BARC496J	Travel Learning				02	NIL
BARC312L	Theory of Landscape Design	3	0	0	3	BARC203L
BARC414P	Introduction to Computational Design and Digital Fabrication I	0	0	4	4	BARC210P
Ability Enhancement Courses						
BARC314L	Professional Practice and Advanced Construction Management	3	0	0	3	BARC305P
BARC498J	Architectural Internship				12	BARC305P
BARC497J	Architectural Dissertation				02	NIL
Skill Enhancement Courses						
BARC110P	Introduction to Digital Graphics	0	0	4	4	NIL
BARC210P	Advanced Digital Graphics: Skill Development	0	0	4	4	BARC110P
BARC423L	Architectural Entrepreneurship	2	0	0	2	NIL

(Annexure 11)

The Academic Council considered and approved the same.

Item 66/16

To consider and approve the programme credit structure and curriculum of Minor in Computer Science and Engineering.

(Annexure 12)

The Academic Council considered and approved the same.

Item 66/17

To consider and approve the programme credit structure and curriculum of Minor in Artificial Intelligence and Machine Learning.

(Annexure 13)

The Academic Council considered and approved the same.

Item 66/18

To consider and approve the programme credit structure and curriculum of Minor in Data Science.

(Annexure 14)

The Academic Council considered and approved the same.

Item 66/19

To consider and approve the revised programme credit structure, curriculum and course contents for Bachelor of Technology in Electronics and Communication Engineering with Specialization in Biomedical Engineering.

The revised programme credit structure, curriculum and course contents for the following sixteen (16) Specialization Elective Courses of Bachelor of Technology in Electronics and Communication Engineering with Specialization in Biomedical Engineering is enclosed as Annexure 15.

Specialization Elective Courses						
Course Code	Course Title	L	T	P	C	Prerequisite
BBMD101L	Anatomy and Physiology	2	0	0	2	NIL
BBMD101P	Anatomy and Physiology Lab	0	0	2	1	NIL
BBMD102L	Biomedical Instrumentation and Measurements - I	2	0	0	2	NIL
BBMD102P	Biomedical Instrumentation and Measurements - I Lab	0	0	2	1	NIL
BBMD201L	Biomedical Instrumentation and Measurements - II	3	0	0	3	BBMD102L, BBMD102P
BBMD202L	Bio Signal Analysis	2	0	0	2	BECE202L
BBMD202P	Bio Signal Analysis Lab	0	0	2	1	BECE202L
BBMD203L	Medical Image Analysis	2	0	0	2	BECE301L,

						BECE301P
BBMD203P	Medical Image Analysis Lab	0	0	2	1	BECE301L, BECE301P
BBMD204L	Medical Imaging Techniques	3	0	0	3	NIL
BBMD205L	Biomaterials	3	0	0	3	NIL
BBMD206L	Biomechanics	3	0	0	3	NIL
BBMD207L	Hospital Management	3	0	0	3	NIL
BBMD208L	Telemedicine and Telecare	3	0	0	3	NIL
BBMD209L	Health Informatics	3	0	0	3	NIL
BBMD210L	Medical Robotics	3	0	0	3	NIL

(Annexure 15)

The Academic Council considered and approved the same.

Item 66/20

To consider and approve the revised programme credit structure, curriculum and course contents for Bachelor of Technology in Computer Science and Engineering with Specialization in Data Science.

The revised programme credit structure, curriculum and course contents for the following seventeen (17) Specialization Elective Courses of Bachelor of Technology in Computer Science and Engineering with Specialization in Data Science is enclosed as Annexure 16.

Specialization Elective Courses						
Course Code	Course Title	L	T	P	C	Prerequisite
BCSE206L	Foundations of Data Science	3	0	0	3	NIL
BCSE207L	Programming for Data Science	2	0	0	2	NIL
BCSE207P	Programming for Data Science Lab	0	0	2	1	NIL
BCSE208L	Data Mining	2	0	0	2	NIL
BCSE208P	Data Mining Lab	0	0	2	1	NIL
BCSE209L	Machine Learning	3	0	0	3	NIL
BCSE209P	Machine Learning Lab	0	0	2	1	NIL
BCSE331L	Exploratory Data Analysis	2	0	0	2	NIL
BCSE331P	Exploratory Data Analysis Lab	0	0	2	1	NIL
BCSE332L	Deep Learning	3	0	0	3	NIL
BCSE332P	Deep Learning Lab	0	0	2	1	NIL
BCSE333L	Statistical Inference	2	0	0	2	NIL
BCSE333P	Statistical Inference Lab	0	0	2	1	NIL
BCSE334L	Predictive Analytics	3	0	0	3	NIL
BCSE335L	Healthcare Data Analytics	3	0	0	3	NIL
BCSE336L	Financial Data Analytics	2	0	0	2	NIL
BCSE336P	Financial Data Analytics Lab	0	0	2	1	NIL

(Annexure 16)

The Academic Council considered and approved the same.

Item 66/21

To consider and approve the course contents for the courses of Bachelor of Technology in Mechanical Engineering with Specialization in Automotive Engineering.

The curriculum was approved in the 65th meeting of the Academic Council held on 17th March 2022 [Item No. 65/24].

Specialization Elective Courses						
Course Code	Course Title	L	T	P	C	Prerequisite
BMEE213E	Automotive Vehicles	2	0	2	3	NIL
BMEE214E	Automotive Electricals and Electronics	2	0	2	3	BEEE101L, BEEE101P, BECE101L, BECE101P
BMEE327E	Vehicle Dynamics	2	0	2	3	BMEE201L
BMEE328E	Hybrid and Electric Vehicles Technology	2	0	2	3	BMEE213E
BMEE329E	Noise, Vibration and Harshness	2	0	2	3	NIL
BMEE413L	Design of Chassis Components	2	1	0	3	BMEE213E

BMEE414L	Vehicle Body and Aerodynamics Engineering	3	0	0	3	NIL
BMEE415L	Electrical Machines, Drives and Power Systems	3	0	0	3	BEEE101L, BEEE101P
BMEE416L	Autonomous Vehicle Systems	3	0	0	3	NIL
BMEE417L	Energy Storage and Management for Electric Vehicles	3	0	0	3	BMEE203L
BMEE418L	Materials for Electric and Hybrid Electric Vehicles	3	0	0	3	BMEE209L, BMEE209P
BMEE419L	Electric Vehicle Testing and Certification	3	0	0	3	NIL

(Annexure 17)

The Academic Council considered and approved the same.

Item 66/22

To consider and approve the course contents for the courses of Bachelor of Technology in Electronics and Communication Engineering.

The curriculum was approved in the 62nd meeting of the Academic Council held on 15th July 2021 [Item No. 62/20].

Discipline Core Courses						
Course Code	Course Title	L	T	P	C	Prerequisite
BECE102L	Digital Systems Design	3	0	0	3	NIL
BECE102P	Digital Systems Design Lab	0	0	2	1	NIL
BECE204L	Microprocessors and Microcontrollers	3	0	0	3	BECE102L
BECE204P	Microprocessors and Microcontrollers Lab	0	0	2	1	BECE102L
BECE205L	Engineering Electromagnetics	3	0	0	3	BPHY101L, BPHY101P
BECE206L	Analog Circuits	3	0	0	3	BECE201L
BECE206P	Analog Circuits Lab	0	0	2	1	BECE201L
BECE207L	Random Processes	2	1	0	3	BMAT202L, BMAT202P, BECE202L
BECE301L	Digital Signal Processing	3	0	0	3	BECE202L
BECE301P	Digital Signal Processing Lab	0	0	2	1	BECE202L
BECE302L	Control Systems	2	1	0	3	BECE202L
BECE303L	VLSI System Design	3	0	0	3	BECE204L, BECE204P
BECE303P	VLSI System Design Lab	0	0	2	1	BECE204L, BECE204P
BECE304L	Analog Communication Systems	3	0	0	3	BECE206L, BECE206P
BECE304P	Analog Communication Systems Lab	0	0	2	1	BECE206L, BECE206P
BECE305L	Antenna and Microwave Engineering	3	0	0	3	BECE205L
BECE305P	Antenna and Microwave Engineering Lab	0	0	2	1	BECE205L
BECE306L	Digital Communication Systems	3	0	0	3	BECE206L, BECE206P
BECE306P	Digital Communication Systems Lab	0	0	2	1	BECE206L, BECE206P
BECE307L	Wireless and Mobile Communications	2	0	0	2	BECE306L, BECE306P
BECE307P	Wireless and Mobile Communications Lab	0	0	2	1	BECE306L, BECE306P
BECE308L	Optical Fiber Communications	2	0	0	2	BECE306L, BECE306P
BECE308P	Optical Fiber Communications Lab	0	0	2	1	BECE306L, BECE306P
BECE401L	Computer Communications and Networks	3	0	0	3	BECE306L, BECE306P
BECE401P	Computer Communications and Networks Lab	0	0	2	1	BECE306L, BECE306P

Discipline Electives							
BECE309L	Artificial Intelligence and Machine Learning	3	0	0	3	BMAT201L
BECE208E	Data Structures and Algorithms	2	0	2	3	BCSE101E
BECE209E	Structured and Object Oriented Programming	2	0	4	4	NIL

(Annexure 18)

The Academic Council considered and approved the same.

Item 66/23

To consider and approve the course contents for the courses of Bachelor of Technology in Electronics and Instrumentation Engineering.

The curriculum was approved in the 62nd meeting of the Academic Council held on 15th July 2021 [Item No. 62/18].

Discipline Electives						
Course Code	Course Title	L	T	P	C	Prerequisite
BEEE410L	Machine Learning	3	0	0	3	BMAT202L, BMAT202P
BEEE411L	Artificial Intelligence	3	0	0	3	BMAT202L, BMAT202P
BEEE211E	VLSI Design	2	0	2	3	BEEE206L, BEEE206P
BEEE212L	Engineering Optimization	2	1	0	3	NIL
BEEE213L	Embedded Systems Design	3	0	0	3	BEEE309L, BEEE309P
BEEE310L	Digital Image Processing	3	0	0	3	BEEE302L, BEEE302P
BEEE408L	Reliability Engineering	3	0	0	3	BMAT202L, BMAT202P
BEEE409L	Robotics and Control	3	0	0	3	BEEE303L, BEEE303P
BEIE308L	Analytical Instrumentation	3	0	0	3	BPHY101L, BPHY101P
BEIE309L	Micro-Electromechanical Systems	3	0	0	3	BEEE201L
BEIE310L	Optical Instrumentation	3	0	0	3	BPHY101L, BPHY101P
BEIE401E	Testing and Calibration	2	0	2	3	BEIE201L, BEIE201P
BEIE402L	Non-Destructive Testing	3	0	0	3	BPHY101L. BPHY101P
BEIE306L	Data Communication Networks	3	0	0	3	BEEE308L
BEIE307E	Automated Test Engineering	2	0	2	3	BEEE206L, BEEE206P, BEEE208L, BEEE208P
BEIE202L	Computer Architecture and Organization	3	0	0	3	BEEE206L, BEEE206P
BEIE403E	Virtual Instrumentation	2	0	2	3	BEIE201L, BEIE201P

(Annexure 19)

The Academic Council considered and approved the same.

Item 66/24

To consider and approve the course contents for the courses of Bachelor of Technology in Electrical and Electronics Engineering.

The curriculum was approved in the 62nd meeting of the Academic Council held on 15th July 2021 [Item No. 62/19].

Discipline Electives						
Course Code	Course Title	L	T	P	C	Prerequisite
BEEE410L	Machine Learning	3	0	0	3	BMAT202L, BMAT202P

BEEE411L	Artificial Intelligence	3	0	0	3	BMAT202L, BMAT202P
BEEE210L	Electrical Machine Design	2	1	0	3	BEEE207L, BEEE207P
BEEE211E	VLSI Design	2	0	2	3	BEEE206L, BEEE206P
BEEE212L	Engineering Optimization	2	1	0	3	NIL
BEEE213L	Embedded Systems Design	3	0	0	3	BEEE309L, BEEE309P
BEEE310L	Digital Image Processing	3	0	0	3	BEEE302L, BEEE302P
BEEE311L	Design of Electrical Installations	3	0	0	3	BEEE207L, BEEE207P
BEEE401E	Power Systems Protection and Switchgear	2	0	2	3	BEEE306L, BEEE306P
BEEE402L	Power Systems Operation and Control	3	0	0	3	BEEE306L, BEEE306P
BEEE403L	Restructured Power Systems	3	0	0	3	BEEE304L
BEEE404L	High Voltage Engineering	3	0	0	3	BEEE304L
BEEE405L	Renewable Energy Systems	3	0	0	3	BEEE301L, BEEE304L
BEEE406L	FACTS and HVDC	3	0	0	3	BEEE301L, BEEE304L
BEEE407L	Power Quality	3	0	0	3	BEEE301L
BEEE408L	Reliability Engineering	3	0	0	3	BMAT202L, BMAT202P
BEEE409L	Robotics and Control	3	0	0	3	BEEE303L, BEEE303P

(Annexure 20)

The Academic Council considered and approved the same.

Item 66/25

To consider and approve the course contents for the courses of Bachelor of Technology in Information Technology.

The curriculum was approved in the 62nd meeting of the Academic Council held on 15th July 2021 [Item No. 62/23].

Discipline Core Courses						
Course Code	Course Title	L	T	P	C	Prerequisite
BITE201L	Data Structures and Algorithms	3	0	0	3	NIL
BITE201P	Data Structures and Algorithms Lab	0	0	2	1	NIL
BITE301L	Computer Architecture and Organization	3	0	0	3	BITE202L, BITE202P
BITE302L	Database Systems	3	0	0	3	BITE201L, BITE201P
BITE302P	Database Systems Lab	0	0	2	1	BITE201L, BITE201P
BITE303L	Operating Systems	3	0	0	3	BITE201L, BITE201P
BITE303P	Operating Systems Lab	0	0	2	1	BITE201L, BITE201P
BITE304L	Web Technologies	3	0	0	3	BCSE103E
BITE304P	Web Technologies Lab	0	0	2	1	BCSE103E
BITE305L	Computer Networks	3	0	0	3	BITE203L
BITE305P	Computer Networks Lab	0	0	2	1	BITE203L
BITE306L	Theory of Computation	3	1	0	4	BMAT205L
BITE307L	Software Engineering	3	0	0	3	NIL
BITE307P	Software Engineering Lab	0	0	2	1	NIL
BITE308L	Artificial Intelligence	3	0	0	3	BITE201L, BITE201P

BITE308P	Artificial Intelligence Lab	0	0	2	1	BITE201L, BITE201P
BITE401L	Network and Information Security	3	0	0	3	BITE305L, BITE305P
BITE402L	Distributed Computing	3	0	0	3	BITE303L, BITE303P
BITE403L	Embedded Systems and IoT	3	0	0	3	BITE301L
BITE403P	Embedded Systems and IoT Lab	0	0	2	1	BITE301L

(Annexure 21)

The Academic Council considered and approved the same.

Item 66/26

To consider and approve the course contents of the Humanities, Social Sciences and Management Elective Courses. Student is expected to complete one course from the list to complete the credit requirement under Foundation Core Courses as per the curriculum of Bachelor of Technology Programmes in various disciplines approved in 62nd Academic Council held on 15th July 2021.

Humanities, Social Sciences and Management Elective Courses						
Course Code	Course Title	L	T	P	C	Prerequisite
BMGT101L	Principles of Management	3	0	0	3	NIL
BMGT102L	Human Resource Management	3	0	0	3	NIL
BMGT103L	Organizational Behavior	3	0	0	3	NIL
BMGT104L	Marketing Management	3	0	0	3	NIL
BMGT105L	Consumer Behavior	3	0	0	3	NIL
BMGT106L	Digital Marketing	3	0	0	3	NIL
BMGT107L	Business Analytics	3	0	0	3	NIL
BHUM102E	Indian Classical Music	2	0	2	3	NIL
BHUM103L	Micro Economics	3	0	0	3	NIL
BHUM104L	Macro Economics	3	0	0	3	NIL
BHUM105L	Public Policy and Administration	3	0	0	3	NIL
BHUM106L	Principles of Sociology	3	0	0	3	NIL
BHUM107L	Sustainability and Society	3	0	0	3	NIL
BHUM108L	Urban Community Development	3	0	0	3	NIL
BHUM109L	Social Work and Sustainability	3	0	0	3	NIL
BHUM110E	Cognitive Psychology	2	0	2	3	NIL
BCLE214L	Global Warming	3	0	0	3	NIL
BCLE215L	Waste Management	3	0	0	3	NIL
BCLE216L	Water Resource Management	3	0	0	3	NIL

(Annexure 22)

The Academic Council considered and approved the same.

Item 66/27

To consider and approve the course contents for the courses of Master of Social Work.

The curriculum was approved in the 62nd meeting of the Academic Council held on 15th July 2021 [Item No. 62/12].

Discipline Core Courses						
Course Code	Course Title	L	T	P	C	Prerequisite
PSWK113L	Disaster Management	3	0	0	3	NIL
PSWK114L	Environmental Social Work	3	0	0	3	NIL
PSWK201L	Community Health	3	0	0	3	NIL
PSWK202L	Rural Community Development	3	0	0	3	NIL
PSWK203L	Urban Community Development	3	0	0	3	NIL
PSWK204L	Social work with Families and Children	3	0	0	3	NIL
PSWK205L	Social Innovation and Entrepreneurship	3	0	0	3	NIL
PSWK206L	Sustainable Community Development	3	0	0	3	NIL
PSWK207L	Social Responsibility	3	0	0	3	NIL

PSWK208L	Medical Social Work	3	0	0	3	NIL
PSWK209L	Psychiatric Social Work	3	0	0	3	NIL
PSWK210L	Public Health Policies and Practices	3	0	0	3	NIL
PSWK211L	Therapeutic Interventions	3	0	0	3	NIL
PSWK103F	Field Work III				06	NIL
PSWK298J	Summer Internship				02	NIL
PSWK299J	Research Project and Internship				22	NIL

(Annexure 23)

The Academic Council considered and approved the same.

Item 66/28

To consider and approve the revised programme credit structure, curriculum and course contents for Bachelor of Technology in Computer Science and Engineering with Specialization in Cyber Physical Systems.

The revised programme credit structure, curriculum and course contents for the following ten (10) Specialization Elective Courses of Bachelor of Technology in Computer Science and Engineering with Specialization in Cyber Physical Systems is enclosed as Annexure 24.

Specialization Elective Courses						
Course Code	Course Title	L	T	P	C	Prerequisite
BEEE412L	Sensors and Actuators	2	0	0	2	BEEE303L, BEEE303P
BEEE412P	Sensors and Actuators Lab	0	0	2	1	BEEE303L, BEEE303P
BCSE415L	Human Computer Interaction	3	0	0	3	NIL
BECE402L	Communication for Cyber Physical Systems	2	0	0	2	BCSE305L
BECE402P	Communication for Cyber Physical Systems Lab	0	0	2	1	BCSE305L
BCSE429L	Cyber Physical Systems Design	2	0	0	2	NIL
BCSE429P	Cyber Physical System Design Lab	0	0	2	1	NIL
BCSE337P	Embedded System Design Lab	0	0	2	1	NIL
BCSE430L	Distributed Real Time Systems	2	0	0	2	NIL
BCSE430P	Distributed Real Time Systems Lab	0	0	2	1	NIL

(Annexure 24)

The Academic Council considered and approved the same.

Item 66/29

To consider and approve the revised programme credit structure, curriculum and course contents for Bachelor of Technology in Computer Science and Engineering with Specialization in Artificial Intelligence and Machine Learning.

The revised programme credit structure, curriculum and course contents for the following eleven (11) Specialization Elective Courses of Bachelor of Technology in Computer Science and Engineering with Specialization in Artificial Intelligence and Machine Learning is enclosed as Annexure 25.

Specialization Elective Courses						
Course Code	Course Title	L	T	P	C	Prerequisite
BCSE209L	Machine Learning	3	0	0	3	NIL
BCSE209P	Machine Learning Lab	0	0	2	1	NIL
BCSE332L	Deep Learning	3	0	0	3	NIL
BCSE332P	Deep Learning Lab	0	0	2	1	NIL
BCSE416L	Game Programming	3	0	0	3	NIL
BCSE416P	Game Programming Lab	0	0	2	1	NIL
BCSE417L	Machine Vision	3	0	0	3	NIL
BCSE417P	Machine Vision Lab	0	0	2	1	NIL
BCSE418L	Explainable Artificial Intelligence	2	0	0	2	NIL
BCSE419L	Speech and Language Processing	3	0	0	3	NIL
BCSE419P	Speech and Language Processing lab	0	0	2	1	NIL

(Annexure 25)

The Academic Council considered and approved the same.

Item 66/30

To consider and approve the revised programme credit structure, curriculum and course contents for Bachelor of Technology in Computer Science and Engineering with Specialization in Artificial Intelligence and Robotics.

The revised programme credit structure, curriculum and course contents for the following seventeen (17) Specialization Elective Courses of Bachelor of Technology in Computer Science and Engineering with Specialization in Artificial Intelligence and Robotics is enclosed as Annexure 26.

Specialization Elective Courses						
Course Code	Course Title	L	T	P	C	Prerequisite
BCSE420L	Sensors, Actuators and Signal Conditioning	2	0	0	2	NIL
BCSE420P	Sensors, Actuators and Signal Conditioning Lab	0	0	2	1	NIL
BCSE421L	Robotics: Kinematics, Dynamics and Motion Control	3	0	0	3	NIL
BCSE422L	Robot Modeling and Simulation	2	0	0	2	BCSE421L
BCSE422P	Robot Modeling and Simulation Lab	0	0	2	1	BCSE421L
BCSE423L	Robot Programming	2	0	0	2	NIL
BCSE423P	Robot Programming Lab	0	0	2	1	NIL
BCSE424L	Machine Learning for Robotics	2	0	0	2	NIL
BCSE424P	Machine Learning for Robotics Lab	0	0	2	1	NIL
BCSE425L	Robotic Perception	3	0	0	3	NIL
BCSE425P	Robotic Perception Lab	0	0	2	1	NIL
BCSE426L	Robotic Process Automation	2	0	0	2	NIL
BCSE426P	Robotic Process Automation Lab	0	0	2	1	NIL
BCSE427L	Cognitive Robotics	2	0	0	2	NIL
BCSE427P	Cognitive Robotics Lab	0	0	2	1	NIL
BCSE428L	Autonomous Drones	2	0	0	2	NIL
BCSE428P	Autonomous Drones Lab	0	0	2	1	NIL

(Annexure 26)

The Academic Council considered and approved the same.

Item 66/31

To consider and approve the programme credit structure, curriculum and course contents for Bachelor of Technology in Mechanical Engineering with Specialization in Electrical Vehicles.

Specialization Elective Courses						
Course Code	Course Title	L	T	P	C	Prerequisite
BMEE213E	Automotive Vehicles	2	0	2	3	NIL
BMEE214E	Automotive Electricals and Electronics	2	0	2	3	BEEE101L, BEEE101P, BECE101L, BECE101P
BMEE327E	Vehicle Dynamics	2	0	2	3	BMEE201L
BMEE328E	Hybrid and Electric Vehicles Technology	2	0	2	3	BMEE213E
BMEE329E	Noise, Vibration and Harshness	2	0	2	3	NIL
BMEE413L	Design of Chassis Components	2	1	0	3	BMEE213E
BMEE414L	Vehicle Body and Aerodynamics Engineering	3	0	0	3	NIL
BMEE415L	Electrical Machines, Drives and Power Systems	3	0	0	3	BEEE101L, BEEE101P
BMEE416L	Autonomous Vehicle Systems	3	0	0	3	NIL
BMEE417L	Energy Storage and Management for Electric Vehicles	3	0	0	3	BMEE203L
BMEE418L	Materials for Electric and Hybrid Electric Vehicles	3	0	0	3	BMEE209L, BMEE209P
BMEE419L	Electric Vehicle Testing and Certification	3	0	0	3	NIL

(Annexure 27)

The Academic Council considered and approved the same.

Item 66/32

To consider and approve the revised programme credit structure, curriculum and course contents of Bachelor of Technology in Mechatronics and Automation.

The curriculum was approved in the 62nd meeting of the Academic Council held on 15th July 2021 [Item No. 62/26].

Discipline-Linked Engineering Science Courses						
Course Code	Course Title	L	T	P	C	Prerequisite
BMHA312L	Control Systems	2	1	0	3	BECE202L
Discipline Core Courses						
BMHA201L	Solid and Fluid Mechanics	3	0	0	3	BMEE201L
BMHA201P	Solid and Fluid Mechanics Lab	0	0	2	1	BMEE201L
BMHA202L	Manufacturing Processes	3	0	0	3	Nil
BMHA202P	Manufacturing Processes Lab	0	0	2	1	Nil
BEEE214L	Electrical Machines and Drives	3	0	0	3	BEEE101L, BEEE101P
BEEE214P	Electrical Machines and Drives Lab	0	0	2	1	BEEE101L, BEEE101P
BMHA203L	Sensors and Instrumentation	3	0	0	3	BECE103L, BECE103P
BMHA203P	Sensors and Instrumentation Lab	0	0	2	1	BECE103L, BECE103P
BMHA301L	Fluid Power Systems	3	0	0	3	BMHA201L, BMHA201P
BMHA301P	Fluid Power Systems Lab	0	0	2	1	BMHA201L, BMHA201P
BMHA302L	Industrial Automation	3	0	0	3	Nil
BMHA302P	Industrial Automation Lab	0	0	2	1	Nil
BMHA303L	Industrial Robotics	3	0	0	3	BMEE207L, BMEE207P
BMHA303P	Industrial Robotics Lab	0	0	2	1	BMEE207L, BMEE207P
BMHA304L	Mechatronic Systems Design	3	0	0	3	Nil
BMHA401L	Computer Integrated Manufacturing	2	0	0	2	BMHA202L, BMHA202P
BMHA401P	Computer Integrated Manufacturing Lab	0	0	2	1	BMHA202L, BMHA202P

(Annexure 28)

The Academic Council considered and approved the same.

Item 66/33

To consider and approve revised curriculum and the course contents for the courses of Three Year Bachelor of Science with Mathematics and Computing. The curriculum was approved in the 62nd meeting of the Academic Council held on 15th July 2021 [Item No. 62/7].

Change in component credit:

Course Code	Course Title	Existing Credit				Proposed Credit			
		L	T	P	C	L	T	P	C
UCSE355L	Machine Learning	3	0	0	3	3	0	2	4

Discipline Core Courses						
Course Code	Course Title	L	T	P	C	Prerequisite
UMAT251L	Real Analysis	3	1	0	4	NIL
UMAT252L	Numerical Methods	3	0	0	3	NIL
UMAT253L	Complex Analysis	3	1	0	4	NIL
UMAT254L	Operations Research	3	1	0	4	NIL
UCSE251L	Data Structures	3	0	0	3	NIL

UCSE251P	Data Structures Lab	0	0	2	1	NIL
UCSE252L	Operating Systems	3	0	0	3	NIL
UCSE252P	Operating systems Lab	0	0	2	1	NIL
UCSE253L	Database Management Systems	3	0	0	3	NIL
UCSE253P	Database Management Systems Lab	0	0	2	1	NIL
UCSE254L	Design and Analysis of Algorithms	3	0	0	3	NIL
UCSE254P	Design and Analysis of Algorithms Lab	0	0	2	1	NIL
UCSE255L	Theory of Computation	4	0	0	4	NIL
UCSE256L	Computer Networks	3	0	0	3	NIL
UCSE256P	Computer Networks Lab	0	0	2	1	NIL
Discipline Electives						
UMAT351L	Integral Equations	3	0	0	3	NIL
UMAT352L	Graph Theory	3	1	0	4	NIL
UMAT353L	Actuarial Mathematics	3	0	0	3	UMAT154L, UMAT154P
UMAT354L	Fuzzy Set Theory	3	0	0	3	NIL
UMAT355L	Mathematical Modelling	3	0	0	3	NIL
UMAT356L	Statics and Dynamics	3	0	0	3	NIL
UCSE355E	Machine Learning	3	0	2	4	NIL

(Annexure 29)

The Academic Council considered and approved the same.

Item 66/34

To consider and approve the course contents for the courses of Bachelor of Science with Physics and Chemistry. The curriculum was approved in the 62nd meeting of the Academic Council held on 15th July 2021 [Item No. 62/4].

Discipline Core Courses						
Course Code	Course Title	L	T	P	C	Prerequisite
UPHY251L	Waves and Optics	4	0	0	4	NIL
UPHY252L	Electronics	3	0	0	3	NIL
UPHY253P	Physics Lab II	0	0	4	2	NIL
UPHY254L	Physics and Chemistry of Materials	4	0	0	4	NIL
UPHY255L	Thermal Physics and Statistical Mechanics	4	0	0	4	NIL
UPHY256P	Physics Lab III	0	0	4	2	NIL
UPHY257P	Physics Lab IV	0	0	4	2	NIL
UCHY251L	Inorganic Chemistry I	4	0	0	4	NIL
UCHY251P	Inorganic Chemistry Lab	0	0	4	2	NIL
UCHY252L	Analytical Chemistry	3	0	0	3	NIL
UCHY252P	Analytical Chemistry Lab	0	0	4	2	NIL
UCHY253L	Organic Chemistry	4	0	0	4	NIL
UCHY253P	Organic Chemistry Lab	0	0	4	2	NIL
Discipline Electives						
UPHY351L	Quantum Mechanics	3	0	0	3	UPHY151L
UPHY352L	Sound and Acoustics	3	0	0	3	NIL
UPHY353L	Atomic and Nuclear Physics	3	0	0	3	NIL
UPHY354L	Laser Physics	3	0	0	3	NIL
UPHY355L	Medical Physics	3	0	0	3	NIL
UPHY356L	Astronomy and Astrophysics	3	0	0	3	NIL
UPHY357L	Geophysics	3	0	0	3	NIL
UCHY351L	Physical Chemistry II	3	0	0	3	NIL
UCHY353L	Synthetic Organic Chemistry	3	0	0	3	NIL
UCHY354L	Heterocyclic Chemistry	3	0	0	3	NIL
UCHY355L	Inorganic Chemistry II	3	0	0	3	UCHY251L, UCHY251P
UCHY356L	Environmental Chemistry	3	0	0	3	NIL
UCHY357L	Medicinal Chemistry	3	0	0	3	NIL
UCHY358L	Polymer Chemistry	3	0	0	3	NIL

(Annexure 30)

The Academic Council considered and approved the same.

Item 66/35

To consider and approve the course contents for the courses of Bachelor of Science with Chemistry and Mathematics. The curriculum was approved in the 62nd meeting of the Academic Council held on 15th July 2021 [Item No. 62/5].

Discipline Core Courses						
Course Code	Course Title	L	T	P	C	Prerequisite
UCHY251L	Inorganic Chemistry I	4	0	0	4	NIL
UCHY251P	Inorganic Chemistry Lab	0	0	4	2	NIL
UCHY252L	Analytical Chemistry	3	0	0	3	NIL
UCHY252P	Analytical Chemistry Lab	0	0	4	2	NIL
UCHY253L	Organic Chemistry	4	0	0	4	NIL
UCHY253P	Organic Chemistry Lab	0	0	4	2	NIL
UCHY254L	Mathematical Chemistry	4	0	0	4	NIL
UMAT251L	Real Analysis	3	1	0	4	NIL
UMAT253L	Complex Analysis	3	1	0	4	NIL
UMAT255L	Discrete Mathematics	3	0	0	3	NIL
UMAT256L	Abstract Algebra and Linear Algebra	3	1	0	4	NIL
Discipline Electives						
UCHY351L	Physical Chemistry II	3	0	0	3	NIL
UCHY353L	Synthetic Organic Chemistry	3	0	0	3	NIL
UCHY354L	Heterocyclic Chemistry	3	0	0	3	NIL
UCHY355L	Inorganic Chemistry II	3	0	0	3	UCHY251L, UCHY251P
UCHY356L	Environmental Chemistry	3	0	0	3	NIL
UCHY357L	Medicinal Chemistry	3	0	0	3	NIL
UCHY358L	Polymer Chemistry	3	0	0	3	NIL
UMAT252L	Numerical Methods	3	0	0	3	NIL
UMAT254L	Operations Research	3	1	0	4	NIL
UMAT352L	Graph Theory	3	1	0	4	NIL
UMAT354L	Fuzzy Set Theory	3	0	0	3	NIL
UMAT355L	Mathematical Modelling	3	0	0	3	NIL
UMAT356L	Statics and Dynamics	3	0	0	3	NIL
UMAT357L	Number Theory	3	0	0	3	NIL
UMAT358L	Transform Techniques	3	1	0	4	UMAT155L, UMAT155P

(Annexure 31)

The Academic Council considered and approved the same.

Item 66/36

To consider and approve the course contents for the courses of Bachelor of Science with Mathematics and Physics. The curriculum was approved in the 62nd meeting of the Academic Council held on 15th July 2021 [Item No. 62/6].

Discipline Core Courses						
Course Code	Course Title	L	T	P	C	Prerequisite
UMAT251L	Real Analysis	3	1	0	4	NIL
UMAT253L	Complex Analysis	3	1	0	4	NIL
UMAT255L	Discrete Mathematics	3	0	0	3	NIL
UMAT256L	Abstract Algebra and Linear Algebra	3	1	0	4	NIL
UMAT258L	Applied Numerical Methods	3	0	0	3	UCSE151E, UMAT151L, UMAT151P
UMAT258P	Applied Numerical Methods Lab	0	0	2	1	UCSE151E, UMAT151L, UMAT151P
UPHY251L	Waves and Optics	4	0	0	4	NIL
UPHY252L	Electronics	3	0	0	3	NIL
UPHY253P	Physics Lab II	0	0	4	2	NIL
UPHY255L	Thermal Physics and Statistical Mechanics	4	0	0	4	NIL
UPHY256P	Physics Lab III	0	0	4	2	NIL

UPHY257P	Physics Lab IV	0	0	4	2	NIL
Discipline Electives						
UMAT254L	Operations Research	3	1	0	4	NIL
UMAT352L	Graph Theory	3	1	0	4	NIL
UMAT354L	Fuzzy Set Theory	3	0	0	3	NIL
UMAT355L	Mathematical Modelling	3	0	0	3	NIL
UMAT357L	Number Theory	3	0	0	3	NIL
UMAT358L	Transform Techniques	3	1	0	4	UMAT155L, UMAT155P
UPHY351L	Quantum Mechanics	3	0	0	3	UPHY151L
UPHY352L	Sound and Acoustics	3	0	0	3	NIL
UPHY353L	Atomic and Nuclear Physics	3	0	0	3	NIL
UPHY354L	Laser Physics	3	0	0	3	NIL
UPHY355L	Medical Physics	3	0	0	3	NIL
UPHY356L	Astronomy and Astrophysics	3	0	0	3	NIL
UPHY357L	Geophysics	3	0	0	3	NIL

(Annexure 32)

The Academic Council considered and approved the same.

Item 66/37

To consider and approve the minor modification in the curriculum of Five Year Integrated Master of Technology in Construction Technology and Management. The curriculum was approved in the 62nd meeting of the Academic Council held on 15th July 2021 [Item No. 62/13].

<u>Change in the course title:</u>

ICLE317L - Construction and Contract Management is changed as Construction Contract Management

<u>Removal of course:</u>

Human Resources Management in Construction is removed and the content is merged in ICLE404L - Construction Personnel Management

(Annexure 33)

The Academic Council considered and approved the same.

Item 66/38

To consider and approve the course contents for the courses of Integrated Master of Technology in Construction Technology and Management.

The academic programme and curriculum of Integrated Master of Technology in Construction Technology and Management was approved in the 62nd meeting of the Academic Council held on 15th July 2021 [Item No. 62/13].

Discipline Core Courses						
Course Code	Course Title	L	T	P	C	Prerequisite
ICLE317L	Construction Contract Management	3	0	0	3	NIL
ICLE318L	Construction Equipment Management	3	0	0	3	NIL
ICLE319L	Construction Planning and Scheduling	3	1	0	4	NIL
ICLE320L	Construction Economics and Finance	3	1	0	4	NIL
ICLE321L	Quality Control and Safety	3	0	0	3	NIL
ICLE322L	Construction Project Management	3	0	0	3	NIL
Discipline Electives						
ICLE404L	Construction Personnel Management	3	0	0	3	ICLE322L
ICLE405L	Lean Construction	3	0	0	3	NIL
ICLE406L	Internal and External Infrastructure Monitoring	3	0	0	3	NIL
ICLE407L	Project Formulation and Appraisal	3	0	0	3	NIL
ICLE408L	Infrastructure Development and BOT, BOOT Projects	3	0	0	3	NIL
ICLE409L	Formwork for Concrete Structures	3	0	0	3	NIL

ICLE410L	Prefabricated Techniques and Management	3	0	0	3	NIL
ICLE411L	Construction Techniques of Steel and Concrete Composite Structures	3	0	0	3	NIL
ICLE412L	Construction Techniques of Deep Foundations	3	0	0	3	NIL
ICLE413L	Flexible and Rigid Pavements	3	0	0	3	ICLE305L
ICLE414L	Repair and Rehabilitation of Structures	3	0	0	3	NIL
ICLE415L	Occupational Health and Industrial Safety	3	0	0	3	NIL
ICLE416L	Context-Aware Computing	3	0	0	3	NIL
ICLE417L	Internet of Things (IoT) for Smart Cities	3	0	0	3	NIL
ICLE418L	Smart Infrastructure	3	0	0	3	NIL

(Annexure 34)

The Academic Council considered and approved the same.

Item 66/39

To consider and approve the course contents for the courses of Bachelor of Technology in Electronics and Computer Engineering.

The curriculum was approved in the 62nd meeting of the Academic Council held on 15th July 2021 [Item No. 62/21].

Discipline Core Courses						
Course Code	Course Title	L	T	P	C	Prerequisite
BECM301L	Signal Processing	3	0	0	3	BMAT102L
BECM301P	Signal Processing Lab	0	0	2	1	BMAT102L

(Annexure 35)

The Academic Council considered and approved the same.

Item 66/40

To consider and approve the revised programme credit structure, curriculum and course contents for Bachelor of Technology in Fashion Technology.

The curriculum was approved in the 62nd meeting of the Academic Council held on 15th July 2021 [Item No. 62/22]. However, requested to revisit the inclusion of courses on Workshop Practice and Engineering Design Visualization in the curriculum of Bachelor of Technology in Fashion Technology.

As per the minutes of the 64th meeting of the Academic Council held on 16th December 2021 [Item No. 64/42.2], the course Engineering Mechanics was moved from Foundation Core Courses category to Open Elective Courses category.

The revised programme credit structure, curriculum and course contents of Bachelor of Technology in Fashion Technology is enclosed as Annexure 36.

Foundation Core Courses						
Course Code	Course Title	L	T	P	C	Prerequisite
BMAT204L	Solid Geometry and Linear Transformations	3	1	0	4	NIL
Discipline-linked Engineering Science Courses						
BFST102L	Textile Fibres	3	0	0	3	NIL
BFST102P	Textile Fibres Lab	0	0	2	1	NIL
BFST201P	Fashion Illustration	0	0	6	3	BFST101E
BFST103L	Apparel Machineries	3	0	0	3	NIL
BFST103P	Apparel Machineries Lab	0	0	2	1	NIL
Discipline Core Courses						
BFST202L	Yarn Manufacturing	3	0	0	3	BFST102L, BFST102P
BFST202P	Yarn Manufacturing Lab	0	0	2	1	BFST102L, BFST102P
BFST301L	Fabric Manufacturing	3	0	0	3	BFST202L, BFST202P
BFST301P	Fabric Manufacturing Lab	0	0	2	1	BFST202L BFST202P
BFST401L	Textile Processing and Finishing	3	0	0	3	BFST301L, BFST301P
BFST401P	Textile Processing and Finishing Lab	0	0	2	1	BFST301L, BFST301P

BFST402L	Fabric Structure and Design Analysis	3	0	0	3	BFST301L, BFST301P
BFST402P	Fabric Structure and Design Analysis Lab	0	0	2	1	BFST301L, BFST301P
BFST302P	Digital Fashion and Apparel Design Lab	0	0	6	3	BFST201L
BFST104L	Fashion Studies	3	0	0	3	NIL
BFST105L	Couture Techniques	3	0	0	3	NIL
BFST105P	Couture Techniques Lab	0	0	2	1	NIL
BFST106L	Pattern Making and Garment Construction	2	0	0	2	NIL
BFST106P	Pattern Making and Garment Construction Lab	0	0	4	2	NIL
BFST203P	Kid's and Men's Wear	0	0	8	4	BFST106L, BFST106P
BFST204P	Women's Wear and Lingerie	0	0	6	3	BFST106L, BFST106P
BFST403P	Computer Aided Garment Design Lab	0	0	6	3	BFST302P
BFST107L	Apparel Merchandising and Costing	3	1	0	4	NIL
BFST405P	Fashion Design Portfolio	0	0	6	3	BFST203P, BFST204P, BFST302P
	Discipline Electives					
BFST205P	Bio-mimicry in Fashion	0	0	6	3	NIL
BFST206P	Fashion Forecasting	0	0	6	3	NIL
BFST207E	Jewellery Designing and Manufacturing	2	0	2	3	NIL
BFST208P	Design Thinking Process and Methods	0	0	6	3	BFST101E
BFST303P	Costume Design for Film and Theatre	0	0	6	3	BFST201L
BFST304E	Accessories Designing and Manufacturing	2	0	2	3	NIL
BFST305L	Industrial Engineering in Apparel Industry	3	1	0	4	NIL
BFST306L	Quality Assurance in Apparel Industry	3	0	0	3	NIL
BFST307L	Denim Technology	3	0	0	3	NIL
BFST308E	Home Textiles	2	0	2	3	NIL
BFST309L	Sustainability in Apparel Industry	3	0	0	3	NIL
BFST310L	Advances in Apparel Production	3	0	0	3	NIL
BFST311L	Functional and Intelligent Clothing	3	0	0	3	NIL
BFST209L	Clothing Comfort	3	0	0	3	NIL
BFST210E	Visual Merchandising	2	0	2	3	NIL
BFST211L	Fashion Merchandising and Marketing	3	0	0	3	NIL
BFST404L	Retail Management	3	0	0	3	NIL
BFST408L	Supply Chain Management	3	0	0	3	NIL
BFST406L	Brand Management	3	0	0	3	NIL
BFST407L	Entrepreneurship	3	0	0	3	NIL
BFST212L	Fashion Communication	3	0	0	3	NIL

(Annexure 36)

The Academic Council considered and approved the same.

Item 66/41

To consider and approve the change in course title for the courses offered in Integrated B.A., LL.B (Hons.) and B.B.A., LL.B (Hons.).

Course Code	Existing Course Title	Proposed Course Title	L	T	P	C
LAW1113	Intellectual Property Rights	Intellectual Property Law	4	0	2	4
LAW4044	Bankruptcy & Insolvency	Insolvency & Bankruptcy	4	1	0	4
LAW5034	Capital Markets and Securities Regulation	Capital Markets and Securities law	4	0	2	4
LAW5036	Law Relating to Mergers and Acquisition	Law of Mergers and Acquisitions	4	1	0	4
LAW4206	Public Policy and Administration	Public Administration	4	1	0	4
LAW1210	Essentials of Sociology	Principles of Sociology	4	1	0	4

The Academic Council considered and approved the same.

Item 66/42

To consider and approve the revised course contents offered in Integrated B.A., LL.B (Hons.) and B.B.A., LL.B (Hons.).

Programme Core Courses						
Course Code	Course Title	L	T	P	C	Prerequisite
LAW7101	Company Law	4	1	0	4	NIL
LAW1105	Alternate Dispute Resolution	4	1	0	4	NIL
LAW4101	Constitutional Law I	4	0	2	4	NIL
LAW5101	Constitutional Law II	4	0	2	4	LAW4101
LAW2207	Law and Social Transformation	4	1	0	4	LAW1216, LAW1210
LAW1102	Environmental Law	4	1	0	4	NIL
LAW1113	Intellectual Property Law	4	0	2	4	NIL
LAW1101	Introduction to Law and Legal Methods	4	1	0	4	NIL
LAW1103	Labour and Industrial Law I	4	1	0	4	NIL
LAW2103	Labour and Industrial Law II	4	1	0	4	LAW1103
LAW1104	Law of Taxation	4	1	0	4	NIL
LAW3103	Family Law I	4	0	2	4	NIL
LAW2102	Law of Contracts	4	1	0	4	NIL
LAW3101	Special Contracts	4	1	0	4	LAW2102
LAW6102	Property Law	4	0	2	4	NIL
Honours & Optional Courses						
LAW4037	Banking Law	4	1	0	4	NIL
LAW4044	Insolvency & Bankruptcy	4	1	0	4	NIL
LAW4048	Competition Law	4	1	0	4	NIL
LAW4046	Corporate Governance	4	0	2	4	NIL
LAW4068	Data Protection Law	4	1	0	4	NIL
LAW4055	Law on Infrastructure Development	4	1	0	4	NIL
LAW4069	Technology and Law	4	1	0	4	NIL
LAW5034	Capital Markets and Securities law	4	0	2	4	NIL
LAW5028	Constitutional Interpretation and Social Justice	4	1	0	4	NIL
LAW5040	Mediation and Conciliation	4	0	2	4	NIL
LAW5001	Sports Law	4	1	0	4	NIL
LAW5002	Women and Law	4	1	0	4	NIL
LAW5007	Criminal Justice and Human Rights	4	1	0	4	NIL
LAW5026	Government Regulation of Industry	4	1	0	4	NIL
LAW5016	Intellectual Property and Competition Law	4	1	0	4	NIL
LAW5010	Law of Treaties	4	1	0	4	NIL
LAW5036	Law of Mergers and Acquisitions	4	1	0	4	NIL
LAW5037	Patent Drafting and Specification writing	4	1	0	4	NIL
LAW5005	Rural Governance	4	1	0	4	NIL
LAW5015	Trade in Intellectual Property	4	1	0	4	NIL
Management, Humanities & Social Sciences Courses						
LAW2206	Macro Economics	4	1	0	4	LAW1209
LAW1209	Micro Economics	4	1	0	4	NIL
LAW1223	Public Finance Theory and Practice	4	0	0	4	NIL
LAW1208	Political Theory	4	1	0	4	NIL
LAW3205	Political Thought	4	1	0	4	LAW2205
LAW2205	Principles of Modern Governments	4	1	0	4	LAW1208
LAW4206	Public Administration	4	1	0	4	LAW3205
LAW1210	Principles of Sociology	4	0	0	4	NIL
LAW1304	Business Statistics	4	1	0	4	NIL
LAW1301	Managerial Economics	4	1	0	4	NIL
LAW1305	Financial Accounting	4	1	0	4	NIL
LAW1302	Financial Management	4	1	0	4	NIL
LAW3302	Operations Research in Management	4	1	0	4	LAW2303
LAW2301	Marketing Management	4	1	0	4	LAW1301

LAW3301	Human Resource Management	4	1	0	4	LAW2301
LAW4301	Strategic Management	4	1	0	4	LAW3301, LAW3302
LAW2303	Organizational Behaviour	4	1	0	4	LAW1303
LAW1303	Principles of Management	4	1	0	4	NIL
LAW2304	Entrepreneurship Development	4	1	0	4	LAW1303
LAW5302	Business Ethics and Human Rights	4	1	0	4	NIL

(Annexure 37)

The Academic Council considered and approved the same.

Item 66/43 **To consider and approve the Amendments in Ph.D. regulations.**

Item 66/43.1 **Proposed amendments in PhD Regulations 2019**

a) **Ph.D. Regulations 2019 shall continue and the following amendments to be incorporated in the existing 2019 regulations to take care of the concerns of different stake holders.**

Existing PhD Regulations 2019	Proposed amendments in PhD regulations 2019
Co- Guide is not Permitted	A Co- guide can be permitted under the following circumstances: 1. If the scholar is a project staff, Co-Principal Investigator (Co-PI) of the project working at Vellore Institute of Technology can be appointed as a co-guide. 2. If the field of research is interdisciplinary/ multidisciplinary in nature, co-guide is permitted with the recommendation of Dean of the School. 3. An External regular faculty/ Scientist/ Industry expert from reputed National and International Universities/R&D Institutions/Industries can be appointed as a co-guide with the recommendation of Dean/Directors. 4. Co-guide, if required, can be appointed even after the constitution of Doctoral Advisory Committee. 5. After the appointment as Co-guide, he/she has to continue as Co-guide for the scholar till the award of the degree. 6. A Co-guide position will be treated as one vacancy similar to the case of regular Guides. 7. For the publications to be considered for the adjudication of the thesis, the research scholar shall be the first author with the Guide as the corresponding author. If there is an approved Co-Guide, he/she can be a co-author in the publications

		8. There shall not be more than two Guides for a research scholar.

The Academic Council considered and approved the same.

Item 66/43. 1

b) **Publication Requirements applicable to the scholars who were admitted from 2019**

Existing PhD Regulations 2019	Proposed amendments in PhD regulations 2019
Publication Requirements A minimum of two publications in refereed Scopus indexed journals with Impact factor are required. • However, in the case of Scholars from Management, Commerce, Languages, Law and other subjects in Humanities, a minimum of two publications in Scopus indexed ABDC list of journals. • In both the publications that form the minimum requirement for the submission of thesis, the scholar will be the first author and the guide will be corresponding author. Here, multiple authors are not allowed other than the approved Research Advisors, if any.	a. For scholars from Science, Engineering and Technology background, a minimum of two Scopus Indexed peer reviewed publications with Impact factor is required. b. For scholars from Management a minimum of two peer reviewed Scopus indexed ABDC journals are required. It is important to see that at least past 5 years Scopus indexing is maintained by the respective Journals consistently till synopsis submission. c. For Social Sciences, Humanities & Languages programmes, a minimum of two peer reviewed Scopus indexed publications (consistently indexed at least past 5 years). d. For Indian Languages and Law Program, a minimum of two UGC care list Journals consistently listed in the last 3 years could be considered. e. For the publications to be considered for the adjudication of the thesis, the research scholar shall be the first author with the Guide as the corresponding author. If there is an approved Co-Guide, he/she can be a co-author in the publications. Publications with the scholar being the corresponding author shall not be considered for processing of his/her synopsis. f. The publications that involve UG/PG students shall not be considered in assessing for the requirements for submission of thesis. g. The Guide shall provide the justification while including a co-author (other than Co-Guide and Co-PIs) in the publications and needs prior approval from Dean, Academic Research.

The Academic Council deferred the same.

Item 66/43.2

a) **Ph.D. Regulations 2015 to 2018 shall continue and the following amendments to be incorporated in the existing 2015 to 2018 regulations to take care of the concerns of different stake holders.**

Existing PhD Regulations 2015 to 2018	Proposed amendments in PhD regulations 2015 to 2018
Co-Principal Investigator (Co-PI) is not Permitted	The Co-PI's of the project under which the scholar is working can be co-authors in the publications of the scholar. However, the Research guide shall submit to the office of Academic Research the proof for Co-PIs in the project in which the scholar is working.

The Academic Council considered and approved the same.

Item 66/43. 2

b) **Publication Requirements applicable to the scholars who were admitted from 2015 to 2018**

Existing Regulations 2015 to 2018	Proposed amendments in PhD regulations 2015 to 2018
a. Minimum of two publications in refereed Scopus indexed journals. One of them is required to be in the Impact factor journal. AND b. One review paper in a journal or conference. If the review paper is published in a refereed Scopus indexed journal, it can be counted as one of the two papers mentioned in (a). c. For the papers claimed eligible for completion of degree programmes, Research scholar should be the first author and guide as co-author. If research scholar has Research advisor, then his/her name can be included as a co-author.	Ph.D Regulations 2015 and 2017 shall continue and the following amendment to be incorporated to the existing 2015 and 2017 regulations to take care of the concerns of different stake holders. a. For Social Sciences, Humanities & Languages programmes, a minimum of two peer reviewed Scopus indexed publications. b. For Indian Languages and Law Program, a minimum of two UGC care list Journals consistently listed in the last 3 years could be considered.

	d. However, multiple author papers (other than guide and research supervisor) with research scholars as the first author are not permitted.	
	The Academic Council deferred the same.	
Item 66/44	**Vote of thanks** The meeting ended with vote of thanks by the Registrar.	

23/6/22

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