



B.M.S. COLLEGE OF ENGINEERING BENGALURU

Autonomous institute, Affiliated to VTU

ACADEMIC COUNCIL

MINUTES OF 24th MEETING

21.01.2025



B.M.S. COLLEGE OF ENGINEERING, BENGALURU

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MINUTES OF THE MEETING OF TWENTY FOURTH ACADEMIC COUNCIL HELD ON 21.01.2025, BOARD ROOM-2, PLATINUM JUBILEE BLOCK, BMSCE.

MEMBERS PRESENT:

Dr. Bheemsha Arya	Chairman	Dr. M. K. Nalini	Member
Dr. L Ravikumar	Member	Dr. K. Balachandra	Member
Dr. D Seshachalam	Member	Dr.Chetan A Nayak	Member
Dr. G. T. Raju	Member	Dr.Saisha Vinjamuri	Member
Dr. Ramesh Babu H. S.	Member	Dr. R Jayagowri	Member
Dr. G R Sinha (ONLINE)	Member	Dr. Sathosh R. Desai	Member
Mr. Jayananda A. Kotri	Member	Dr.Dakshayini M.	Member
Mr. Ankur Dang	Member	Dr. Indiramma M	Member
Dr. Rajeshwari M.Hegde	Member	Dr. Nagarathna N	Member
Dr. S. B. Bhanu Prashanth	Member	Dr. R. Ashok Kumar	Member
Dr. Savithri Bhat	Member	Dr. B. L. Suresha	Member
Dr. C. Lakshminarayana	Member	Dr. M. S. Dharinaprakash	Member
Dr. B. R. Shambhavi	Member	Dr. Rangaswamy	Member
Dr. J. Sharana Basavaraja	Member	Dr. Minu Zachariah	Member
Dr. Sureka Naagesh	Member	Dr. S Uma	Member
Dr. Shiva Prasad H M	Member	Dr. G. Saravanakumar	Member
Dr. R. S. Geetha	Member	Dr. Shubha Muralidhar	Member
Dr. K. P. Lakshmi	Member	Dr. Veena N. Hegde	Member
Dr.Shailaja V. N.	Member	Dr. Gowrishankar	Member
Dr. Kavitha Sooda	Member		Secretary

LEAVE OF ABSENCE:

Dr. K N Subramanya	Member	Dr. Chandasree Das	Member
Mr. Venkata Rangam T	Member	Dr. K Veerabhadrapa	Member
Mr. K S Prasanna	Member		

At the outset, Dr.Bheemsha Arya, Principal, BMSCE and Chairman, Academic Council extended a cordial welcome to all the members to the Twenty Fourth meeting of the Academic Council. Thereafter, the Principal requested the Member Secretary to take-up the agenda items.

SECTION 1: ITEMS FOR CONFIRMATION

1.1 CONFIRMATION OF THE MINUTES OF TWENTY THIRD ACADEMIC COUNCIL MEETING HELD ON 28.06.2024

The minutes of the Twenty Third meeting of the Academic Council held on 28.06.2024 were confirmed.



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1.2 ACTION TAKEN REPORT ON THE DECISIONS OF TWENTY THIRD ACADEMIC COUNCIL MEETING

The action taken report in pursuance of the resolution of the Academic Council held on 28.06.2024 was presented by the Member-Secretary and same was approved. The details are as shown hereunder:

SNO	Subject	Suggestion of AC	Action Taken Report						
1	Submission of Self-Study Report (SSR) towards NAAC Cycle-III Accreditation	Suggested to have a defined measures and plan of action to withstand/sustain the accreditation status i.e., highest grade and at the same time focus to improve the academic standards.	<p>BMSCE has been awarded the prestigious NAAC (National Assessment and Accreditation Council) accreditation with a CGPA of 3.56 on a four-point scale at the highest grade of A++ Grade in Cycle III Accreditation.</p> <p>Sequence of Major activities</p> <table><tr><td>Submission of SSR</td><td>23.05.2024</td></tr><tr><td>Date of NAAC Peer Team Visit</td><td>24.10.2024 & 25.10.2024</td></tr><tr><td>Date of NAAC Certification</td><td>30.10.2024</td></tr></table> <p>With the institution achieving the highest grade in the third consecutive cycle of NAAC Accreditation, the validity of Cycle III Accreditation is for a period of seven years i.e. from 30.10.2024 to 29.10.2031.</p>	Submission of SSR	23.05.2024	Date of NAAC Peer Team Visit	24.10.2024 & 25.10.2024	Date of NAAC Certification	30.10.2024
Submission of SSR	23.05.2024								
Date of NAAC Peer Team Visit	24.10.2024 & 25.10.2024								
Date of NAAC Certification	30.10.2024								
2	Proposed method for maintenance of answer scripts (both hard and soft copy) in the office of COE from the AY 2024-25	Suggested to follow regulations of apex bodies like AICTE / UGC / VTU in this regard and implement accordingly.	<p>Hard Copy Storage:</p> <ul style="list-style-type: none">▪ Maintaining physical (hard copy) answer scripts for 11 months.▪ Maintaining physical (hard copy) answer scripts for 24 months. (if not scanned)▪ Ensuring storage in a secure location, such as a lockable filing cabinet or a storage room with restricted access, with an aim to maintain confidentiality and prevent damage. <p>Soft Copy Storage:</p> <ul style="list-style-type: none">▪ Maintaining PDF versions of the answer scripts for 3 years.▪ Hard disks (HDD/SSD/Cloud Storage or other secure storage devices used for storage purpose to ensure the devices are:<ul style="list-style-type: none">▪ Encrypted to prevent unauthorized access.▪ Stored in a safe physical environment to avoid loss due to damage or theft.▪ Periodically backed up to an additional location or cloud storage for redundancy.						



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			<p>Compliance and Auditing:</p> <ul style="list-style-type: none"> Clearly label storage media with the retention period. After the retention period, securely dispose of both hard copies (e.g., shredding) and soft copies (e.g., using data erasure software). <p>Verification: Periodic review of storage and retention.</p>
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SECTION 2: ITEMS FOR INFORMATION

2.1 A REPORT ON THE ACADEMIC ACTIVITIES OF THE COLLEGE FROM JULY 2024, TILL DATE

The Principal formally introduced to the Council the following newly inducted functionaries and Head of the Departments.

SNo.	Name	Designation
1	Dr.Bheemsha Arya	Principal
2	Dr.D. Seshachalam	Vice Principal (Administration)
3	Dr.L.Ravi Kumar	Vice Principal (Academic)
4	Dr.Gowrishankar	Dean (Academic)
5	Dr.Rajeshwari Hegde	Dean (Student Affairs)
6	Dr.Savithri Bhat	Dean (Innovation)
7	Dr.S.B Bhanu Prashanth	Dean (FYB)
8	Dr.C.Lakshminarayana	Controller of Examinations

Head of the Departments

SNo	Name of the Faculty	Designation	SNo	Name of the Faculty	Designation
1	Dr. Shiva Prasad H.M	HOD - ME	9	Dr. Chetan A. Nayak	HOD - CH
2	Dr.R.S.Geetha	HOD - EE	10	Dr. Saisha Vinjamuri	HOD - BT
3	Dr.K.P.Lakshmi	HOD - EC	11	Dr. K. Veerabhadrapa	HOD - AE
4	Dr.Shailaja V. N.	HOD - IM	12	Dr. Dakshayini M.	HOD - AIML
5	Dr.Kavitha Sooda	HOD - CS	13	Dr. S. Uma	HOD - MCA
6	Dr.K. Balachandra	HOD - ET	14	Dr. Chandasree Das	HOD - R&D
7	Dr.M.K.Nalini	HOD - IS	15	Dr. Rangaswamy	HOD - Maths
8	Dr.R.Jayagowri	HOD - ML			

The Council extended a warm welcome to the above members. The Council also acknowledged the contribution of the outgoing members of the Council.



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2.2 STATUS OF ACCREDITATION (UG & PG PROGRAMS)

The Dean Academic informed the Council about the NBA accreditation Status of UG and PG programs. The details are provided hereunder:

NBA Accreditation Status of UG Programs					
SNo	Program	Level	Accreditation Validity		Status
			From	To	
1	Electrical & Electronics Engg.	UG	01.07.2022	30.06.2025	Submitted the compliance reports of 5 programs for extension of the Accreditation period
2	Computer Science and Engg.	UG	01.07.2022	30.06.2025	
3	Information Science & Engg.	UG	01.07.2022	30.06.2025	
4	Electronics and Instrumentation Engg.	UG	01.07.2022	30.06.2025	
5	Medical Electronics	UG	01.07.2022	30.06.2025	

NBA Accreditation Status of PG Programs					
SNo	Program	Level	Accreditation Validity		Status
			From	To	
1	Machine Design	PG	01.07.2018	30.06.2024	The NBA Expert Team visited during 20-22 Dec, 2024. Results awaited.

2.3 NAAC CYCLE-III ACCREDITATION

The Dean (Academic) informed the members that BMSCE has been awarded NAAC accreditation with a CGPA of 3.56 on a four-point scale at the highest grade of A++ Grade in Cycle III. This significant milestone reflects the institution's sustained commitment to excellence in maintaining high academic standards and continuous improvement in various aspects of education, infrastructure, and student support services. With the institution achieving the highest grade in the third consecutive cycles of NAAC Accreditation, the validity of Cycle III Accreditation is for a period of seven years i.e. from 30.10.2024 to 29.10.2031.

The Council appreciated the efforts of all the stake holders for the meticulous work done in ensuring that the institution got the top most grade in the third consecutive cycle of NAAC process. The council congratulated the Management, Principal, Vice Principals, Deans, Chief Coordinator-Internal Quality Assurance Cell (IQAC), HODs, Faculty and Staff on the accomplishment. The Council also opined that the quality benchmarks achieved by the institution more specifically, since obtaining autonomy, encourages the institution to embark on establishing BMS University.

The Certificate of NAAC Accreditation is provided as **Annexure-I**.



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2.4 GRADUATION DAY - 2024

The Controller of Examination (COE) presented a brief report on the Graduation Day - 2024 held on September 21, 2024. The COE informed the members that degree certificates were awarded to 1,214 students of the autonomous batch who graduated in the Academic Year 2024. Dr.B.N. Suresh, Hon'ble Chancellor of the Indian Institute of Space Science & Technology, Thiruvananthapuram, was the Chief Guest.

The Council noted the matter.

2.5 INAUGURAL & INDUCTION PROGRAM FOR 1st YEAR UG STUDENTS

The Dean (Academic) informed the members that the Inaugural Function for the newly admitted undergraduate students for the AY 2024-25 was held on 20.09.2024. A total of 3,068 students were enrolled in various branches B.E. programs. Dr.Amith Singhee, Director of IBM Research India and CTO of IBM India & South Asia was the Chief Guest. The Induction Program for the newly admitted students was held from September 23 to October 2, 2024.

2.6 ORIENTATION PROGRAM FOR 1st SEMESTER PG STUDENTS

The Dean (Academic) informed the Council that the orientation programme for the newly admitted students of Post Graduate (PG) students (M.Tech., MBA, and MCA) programmes for the Academic Year 2024–2025 was held on December 16th and 17th, 2024, for newly admitted. The orientation program featured several sessions intended for the 350 PG students.

The Council took note of the matter.

2.7 PHASE SHIFT 2024

BMSCE organises technical symposium 'Phase Shift' every year to commemorate Engineer's Day. The symposium has been a medium for effective industry interaction in which the industries showcase their expertise and product exhibits. Plethora of seminars, workshops, competitions and multidisciplinary events collaborated with industries on technological advances are conducted as part of the event.

The institution hosted PHASE SHIFT 2024 on 5th and 6th of December 2024. The Theme of the Phase Shift -2024 was "Resurgence-Transforming Tomorrow Sustainably". Sri Gopalan Oppiliappan, Head, AI centre of Excellence, Intel, India graced the event as the Chief Guest and Dr. Rajalakshmi Borthakur, Founder & CEO, TerraBlue XT Ms. Jyoti Ganapati, Director HR, Leading MNC, Bangalore was guest of honor for the event. As part of the symposium, 130 technical events were conducted. The symposium attracted 5100 students from BMSCE and other institutions. More than 130 industries participated in the event.



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2.8 BMSCE HOSTED AICTE UDYAMOTSAV 2025

Aiming to promote innovation and entrepreneurship among students across India, the All-India Council for Technical Education (AICTE) launched UDYAMOTSAV 2025. The event coincided with the National Start-up Day. One of the key highlights of UDYAMOTSAV 2025 is the 'Shark Tank'-style pitching sessions. This dynamic format provides a unique opportunity to faculty and students to pitch their ideas to a distinguished panel of investors, securing not only funding but also invaluable feedback and exposure. The 'UDYAMOTSAV 2025,' is being hosted in 14 cities across India. It is a proud privilege that BMSCE was chosen as the representative institution from Karnataka, to host the event. The event conducted on 16.01.2025 created a dynamic platform for 25 student-led start-ups to showcase their ideas. These ideas were pitched to a panel of 10 prominent investors, offering opportunities for funding, mentorship, and scaling.

The Members of the Council expressed their appreciation and commended the efforts of all the stakeholders who contributed to the success of the initiative.

2.9 DATES OF BOS MEETINGS HELD FROM JULY 2024, TILL DATE

The date(s) of Board of Studies (BOS) Meetings held at various departments/clusters from July 2024, till date was noted by the Council. The copy of BOS minutes is provided in **Annexure-II**.

SECTION 3: ITEMS FOR RATIFICATION

3.1 LIST OF STUDENTS DISCONTINUED UG / PG PROGRAMS

The Council noted and ratified the list of students who have canceled their admissions since 23rd AC Meeting i.e., June, 2024. The details are provided below:

SNo	Dept.	USN	Name of the Candidate	Date of Cancellation	Semester
1	EIE	1BM22EI037	Pranav P	03.07.2024	III Sem
2	ETE	1BM23ET051	Soham Vijh	04.07.2024	II Sem
3	IEM	1BM22IM026	P. Karthikeyan	10.07.2024	II Sem
4	MBA	1BM23BA106	Tejas H	11.07.2024	I Sem
5	CH	1BM22CH040	Shashank Bhimaraya Gonal	18.07.2024	II Sem
6	CSE	1BM22CS045	Anugrah Yadhav	19.07.2024	II Sem
7	ME	1BM21ME091	Srivatsan N Sundar	22.07.2024	IV Sem
8	ME	1BM22ME008	Aditya Shetty	23.07.2024	II Sem
9	AS	1BM23AS040	R Nithin	29.07.2024	II Sem
10	IEM	1BM23IM043	Sanjay Kumar Rajak	16.08.2024	II Sem
11	MD	1BM23MD024	Jeevith Gangadhar	21.08.2024	II Sem
12	EC	1BM23EC412	Madhusudan S	20.08.2024	IV Sem
13	IEM	1BM23IM400	Abhineeth K R	22.08.2024	IV Sem
14	CV	1BM22CV015	Ashish Patil	26.08.2024	IV Sem
15	CS-IOT	1BM23IC011	Arriyann Aggarwal	26.08.2024	II Sem



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SNo	Dept.	USN	Name of the Candidate	Date of Cancellation	Semester
16	CSE	1BM22CS122	Kanaka H M	27.08.2024	II Sem
17	EIE	1BM22EI061	Vishal V	11.09.2024	IV Sem
18	CSE	1BM22CS400	Aadil Hussian Para	11.09.2024	III sem
19	IEM	1BM22IM010	Arvind H Darsan	26.09.2024	II SEM
20	CV	1BM22CV047	Kushal L Gowda	27.09.2024	III Sem
21	ME	1BM22ME058	Nagaraj	27.09.2024	IV SEM
22	CS-DS	1BM23CD404	Shivakumar G L	01.10.2024	V SEM
23	IEM	1BM23IM400	Abhineeth K R	04.10.2024	III Sem
24	ME	1BM22ME009	Advaith S B	14.10.2024	II SEM
25	ME	1BM18ME047	Giridhar Teli	18.10.2024	III Sem
26	CSE	1BM22CS065	Bandhavya Krishna	23.10.2024	II SEM
27	MD	1BM22MD043	Pratheek Bichagal	24.10.2024	III Sem
28	EEE	1BM23EE031	Nishant	08.11.2024	II Sem
29	ME	1BM20ME056	Hemant A Mansukhani	12.11.2024	VIII SEM
30	CH	1BM22CH008	Aryan Jaiswal	19.11.2024	III Sem
31	IS	1BM23IS227	Shivana Gouda	26.11.2024	II Sem
32	MCA	1BM23MC102	T N Rajesh	09.12.2024	I SEM
33	AIML	1BM22AI113	Sai Darshan Yecham	10.12.2024	II Sem
34	CSE	1BM23CS099	G Hrushikesh Pradhan	07.01.2025	II Sem

SECTION 4: ITEMS FOR APPROVAL

4.1 REVISED UG EXAMINATION QUESTION PAPER PATTERN

The Controller of Examinations (COE) suggested incorporating an internal choice of questions within each unit for the Semester End Examination (SEE). In the deliberations that followed, the following suggestions were shared.

1. The Questions shall emphasize higher-order thinking skills (above Bloom's Level 3) and prioritize research-based, collaborative, and problem-based learning.
2. The SEE question paper shall consist of 10 questions. Students will answer any 5 questions, selecting one from each syllabus unit.
3. Continuous Internal Examinations (CIE) and SEE shall follow uniform pattern to ensure consistency.
4. Question papers for both CIE and SEE shall strictly comply with the University's guidelines.

4.2 INTRODUCTION OF INDIAN KNOWLEDGE SYSTEM COURSE

The Dean (Academic) informed the members that, in alignment with the VTU Scheme for the 2021 batch, it is proposed to offer a 1-credit course on "Indian Knowledge System" (IKS) during the 8th semester. To maintain the total number of credits, it is suggested to reallocate 1 credit for proposed course on IKS by reducing 1 credit from Project Phase-2.



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Similarly, for the 2022 batch, the "Indian Knowledge System" course will be offered during the 7th semester as a 1-credit course. To ensure the total credits remain balanced, 1 credit shall be deducted from Project Phase-1.

To facilitate a deeper understanding of the subject, a workshop on the "Indian Knowledge System" course will be organized for faculty members. The Dean (Academic) has requested Prof. G. R. Sinha, Provost (Vice Chancellor), GSFC University, Vadodara, Gujarat, India, to assist in this endeavour. Prof. Sinha suggested utilizing the resources of the Siddanta Knowledge Foundation, a division of IKS dedicated to create robust platforms for globally relevant knowledge models rooted in the traditional Indian approach to learning. Furthermore, as the University permits a 20% modification in the syllabus, it was recommended to integrate relevant concepts from the Foundation.

The classes for the "Indian Knowledge System" course will be conducted both in online and offline modes to ensure flexibility and accessibility. Additionally, the course code will be uniform across all departments.

4.3 STUDENTS OPTING FOR INTERNSHIPS IN THE FINAL YEAR

The Dean (Academic) informed the members about the VTU circular dated 06.08.2024 stating the changes in 2022 scheme to provide flexibility for students to undertake internships during final year of their study.

7th Semester Internship: Students undertaking a full-time internship in the 7th semester can register for their 7th semester courses in the 8th semester.

8th Semester Internship: Students opting for a full-time internship in the 8th semester can register for their 8th semester courses during the 7th semester itself.

After detailed discussions, the members opined to explore the possibility to conduct swapped classes before allowing students to swap 7th and 8th semester courses. The modifications as notified by the University regarding internship shall be adhered to.

4.4 LIST OF STUDENTS AVAILED TEMPORARY WITHDRAWAL

The Council noted that the following students have applied for temporarily withdrawal from the Program, since the 23rd Academic Council Meeting (AC) held on 28th June 2024. The details are listed below:

SNo.	USN	Name of the Student	UG/PG	Duration
1	1BM23IS002	Mr. Aarif Mushtq	UG	One Semester
2	1BM23CS103	Ms. Gunashree G.	UG	Two Semesters
3	1BM23CS323	Mr. A. Shriaditya	UG	Two Semesters
4	1BM23EE027	Mr. Mohammed Talha Safwan	UG	Two Semesters
5	1BM21EC211	Mr. Vrushabh N. Pattanashetti	UG	Two Semesters
6	1BM22CS411	Mr. Naveen	UG	Two Semesters



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4.5 MOOC PLATFORM FOR ONLINE COURSES OFFERED UNDER UG/PG PROGRAMS

The Dean (Academic) informed the Council that, it is being proposed to offer online credited courses as part of the UG/PG curriculum. The online platforms like NPTEL, Coursera, NASCOM, and SWAYAM and others broadens the scope of learning and develop additional industry relevant skills.

After detailed deliberations, the Council agreed in the proposal principle with specific reference to the following points:

- The online Courses listed by the University is offered
- The students shall submit the completion certification from the recognized platform for consideration
- The institute shall seek necessary approval from the University before implementation.

4.6 REVISION OF PG CURRICULUM FROM THE ACADEMIC YEAR 2024-25 ONWARDS

The Dean (Academic) briefed regarding distribution of credits among various curricular components. He requested the HODs to present the revised PG scheme.

The Head of the departments presented scheme of first year PG programs for the batch admitted during the academic year 2024-25. The revised scheme (2024-25) for various PG programs is provided in **Annexure-III**.

After detailed deliberations, Council approved the first year PG curriculum with the following observations:

1. **M.Tech. in Power Electronics:** Suggested to change the nomenclature of the course 'Python Programming' as 'Advanced Python Programming' by include advanced concepts of Python in the syllabus. Emphasizing more on hands on experience for students, they advised to include practical component instead of tutorials i.e., T-L-P from 2-1-0 to 2-0-1.
2. **M.Tech. in VLSI & Embedded Systems:** Advised to include 'Digital IC Design' as core course instead of offering it as an elective course. Consider revising the title of the course 'Advanced Machine Learning'. Since advanced machine learning typically includes deep learning, the title may be streamlined to reflect this integration.
3. **M.Tech. in Computer Science & Engineering:** The title of the course 'Artificial Intelligence and Machine Learning' shall be changed to 'Distributed Artificial Intelligence and Machine Learning' introducing advanced concepts.
4. **Master of Computer Applications (MCA):** Opined to reconsider to offer the course 'Linux & Shell Programming' instead of offering the conventional course 'Shell Programming'. Advised to collect feedback from students and other stake holders before implementation.
5. **Master of Business Administration (MBA):** Digital Marketing is the practice of using online channels to promote products, services, or brands. Offering Digital Marketing as a specialization instead of a core course, increases demand for digital marketing professionals across industries and also bridges the gap between traditional and modern marketing approaches.



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4.7 APPROVAL OF SCHEME AND SYLLABUS FOR FOURTH YEAR UG PROGRAMS

The Head of the Departments presented the key features and new concepts brought in the scheme & syllabus of 8th semester for the batch admitted during 2021-22 and the scheme & syllabus of 7th & 8th semester for the batch admitted during 2022-23 UG programs.

The Council noted and approved the scheme and syllabus for the final year B.E. Programs. The scheme of 8th semester for the batch admitted during 2021-22 and scheme of 7th and 8th semester for the batch admitted during 2022-23 are provided in **Annexure-IV**.

SECTION 5: ANY OTHER SUBJECT WITH PERMISSION OF THE CHAIR

1. Submission of AQAR-2023-24:


The Vice Principal (Aca) informed the members that, submission of the Annual Quality Assurance Report (AQAR) is mandatory of institutions under the National Assessment and Accreditation Council (NAAC). The AQAR for the year 2023-24 for the period 01.06.2023 to 31.05.2024 was prepared by the Internal Quality Assurance Cell (IQAC) and submitted online on NAAC portal on January 21, 2025. The Council noted and ratified the same.


2. Modified 2022 scheme to provide options for Internship:

The Vice Principal informed the Council that the VTU through Circular dated 06.08.2024 has notified modification in the scheme for the 2022 batch of students by providing options for internships. The Vice-Principal sought the approval of the Council for its implementation. The Council reviewed and approved the proposal.

Additionally, the Council approved that the College shall make any changes/modifications in academic regulations and UG and PG curricula as may be notified by the University from time to time.

The Meeting concluded with thanks to the Chair.


DEAN (ACADEMICS)
Dean (Academics)
BMS College of Engineering
Bangalore - 560 019


PRINCIPAL
Principal
B.M.S. College of Engineering
Bangalore - 560 019

ANNEXURE –I

Certificate of Accreditation by NAAC Cycle-III



राष्ट्रीय मूल्यांकन एवं प्रत्यायन परिषद
विश्वविद्यालय अनुदान आयोग का स्वायत्त संस्थान
NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL
An Autonomous Institution of the University Grants Commission

Certificate of Accreditation

*The Executive Committee of the
National Assessment and Accreditation Council
is pleased to declare
B.M.S. College of Engineering (Autonomous)
Bull Temple Road, Bengaluru, Bangalore Urban,
affiliated to Visvesvaraya Technological University, Karnataka as
Accredited
with CGPA of 3.56 on four point scale
at A⁺⁺ grade
valid up to October 29, 2031*

Date : October 30, 2024



Director

EC(SC)/223/3rd Cycle/KACOGN80356

ANNEXURE – II

Minutes of BOS meetings of various departments / clusters
held from July 2024 till date



B.M.S. COLLEGE OF ENGINEERING, BENGALURU
Autonomous institute affiliated to VTU

MINUTES OF BOARD OF STUDIES

for various departments / clusters held since July, 2024

SNo	Name of the Department / Cluster	Date of conduction
1	Civil Engineering	10.12.2024
2	Electrical Science Custer (EE, EC, TE, IT & ML)	21.12.2024
3	Mechanical Engineering	15.01.2025
4	Computer Science Engineering	12.12.2024
5	Masters in Computer Applications	07.12.2024
6	Master of Business Administration	19.10.2024



B.M.S. College of Engineering, Bengaluru-560 019
(Autonomous Institute, Affiliated to VTU)

DEPARTMENT OF CIVIL ENGINEERING

Minutes of BOS Meeting

On : 10th December 2024 in Sir M V Hall, First Floor, PG Block.

Agenda: Approval of scheme and syllabus of PG (Construction Technology). PG (Environmental Engineering) and PG (Transportation Engineering and Management) of I to IV Semesters for AY 2024-25.

Members Present:

Sl. No	BOS members	
1	Dr. Sureka Naagesh	BOS, Chair person Professor and HOD
2	Dr. Radhakrishna	External Member , BOS, (Nominated by VTU) Professor and Head, RVCE, Bengaluru
3	Dr. Ramachandra. V	External Member , BOS , Principal advisor (Tech), Ultra Tech Cements Ltd., (subject expert)
4	Sri. N. P. Sharma	External Member , BOS , Chief Engineer, BMRCL, Bengaluru. (industry representative)
5	Dr. Ganesh K	Internal Member, BOS. Professor, B.M.S. College of Engineering.
6	Dr. Ramakrishnaiah C. R.,	Internal Member, BOS, Professor, B.M.S. College of Engineering
7	Dr. Arun Kumar A. S.	Internal Member, BOS, Professor, B.M.S. College of Engineering

Sureka Naagesh

Invitees:

Sl.No.	Faculty Name	
1	Dr. K Parthan	Assistant Professor, Department of Civil Engineering, B.M.S. College of Engineering
2	Dr. Manjunath R,	
3	Mrs. Prathima B	

HOD welcomed all the BOS members and invitees to the meeting. HOD briefed the agenda of the meeting to all the BOS members. HOD requested respective three PG program coordinators to present their scheme and syllabus.

Common suggestions on all PG program Scheme and syllabus

- All the three options of the PG program as prescribed by the VTU was presented to the BOS members.
- Dr. Radhakrishna expressed its concern on III semester (option C) about evaluation of major project in comparison with Option A and B. Professor suggested to provide a systematic orientation to students to have clarity and also academic expectation from each options.
- All the BOS members raised their concerns on offering online courses during their third semester internship period.
- The sites visit planned for the course to be mentioned the syllabus.
- It was suggested to list all NPTEL MOOC courses relevant to the respective PG programs which students are supposed to takeup as per the academic requirements.
- BOS suggested to have atleast one Indian author book for the courses in references and to format the same properly.

PG - Transportation Engineering and Management scheme and syllabus:

The following are the suggestions given by all BOS members on PG - Transportation Engineering and Management scheme and syllabus.

1. Sri. N. P. Sharma suggested to mention specific application of analytical techniques in the field of civil engineering for the course MCV101.
2. Dr. Radhakrishna expressed to make courses intensive and interesting for the students with the help of appropriate pedagogy skills.
3. Dr. Ramachandra. V suggested to revamp the content of the course Pavement Materials (MCV115D). Suggested points are:
 - Unit 1 and Unit 2 are to be combined.

- Unit 3 and Unit 4 are to be combined to one unit.
 - Introducing a unit on PQC and Modified bituminous
 - Provide more emphasis on PMBC and CRMB in the course.
4. Sri. N. P. Sharma suggested to give exposure to students about public domain survey formats like survey monkey, google forms etc., in the course Urban Transportation Planning (MCV114C).
 5. BOS members suggested to revisit unit 1 and unit 2 of the course Analysis and Design of Pavements (MCTE201). It is suggested to list all the relevant code books in the references. And also it is advised to include IIT PAVE software in the course.
 6. The following topics are suggested by the BOS members to include in the course Pavement Construction and Technology (MCTE412A):
 - Construction methods and maintenance
 - Life cycle cost
 - Aspects of maintenance
 - Aspects of Stresses
 - All failure modes of pavement
 - Cold mix asphalt
 - Repair work management
 - Precast and latest trends in pavement construction
 7. BOS members suggested to approach IISc for the 5-day training program to students and faculties on Drone survey if possible.
 8. BOS members recommended to have collaboration with CRRI for student internships and projects.

PG – Construction Technology scheme and syllabus:

- BOS members suggested to provide proper orientation for the students, beginning of their classes about list of electives.
- Sri. N. P. Sharma suggested to add specific application of the statistics in construction field in the syllabus of MCV101.
- Dr. Radhakrishna instructed to add detailed content of the topics in all the units of the course Construction Project Management (MCV115A).
- BOS members suggested add topics like Concepts of 3D printing, mass concrete and operations of RMC in the course Advances in Concrete Technology (MCV103).
- Dr. Radhakrishna suggested to add a book by Dr. K S Jagadish for the course Sustainable Construction (MCCT202).

- BOS members suggested to give AAT in the domain GRIHA and LEED guidelines for green building evaluation in the course Sustainable Construction (MCCT202).
- BOS members advised to mention numericals for the courses Mechanization in Construction (MCV114A) and Remedial Engineering (MCCTXXXB).
- BOS members proposed to add bridge design in the course Pre-Stressed Concrete (MCCTXXXG).
- Dr. Radhakrishna suggested to modify COI of the course Soil Exploration and Ground Improvement Techniques (MCCTXXXJ). Also to rewrite the Unit 1 heading as Principles of geo exploration rather than Principles of exploration in the course Soil Exploration and Ground Improvement Techniques (MCCTXXXJ).
- BOS members suggested to add case study based AAT for the course DISASTER MANAGEMENT (MCCTXXXP).
- BOS members recommended to mention number of bays and storeys in the syllabus of the course Advanced Reinforced Concrete Design (MCCTXXXH).

PG – Environmental Engineering scheme and syllabus:

- BOS members advised to seek feedback on curriculum from Dr. Ravi Kumar, Professor, UVCE, Bangalore, who is also a BOS member.
- Members suggested having collaboration with TERI for student internship and projects.
- Dr. Radhakrishna suggested introducing design thinking concepts in the program to facilitate students to come out with innovative solution for real time societal problems.

The scheme and syllabus of PG (Construction Technology), PG (Environmental Engineering) and PG (Transportation Engineering and Management) was approved by BOS members for AY 2024-25.

Any other matter: UG courses:

The one credit courses of UG [III sem - 23CV3BSBFE (Biology for Engineers), V Sem- 23CV5HSEVS, (Environmental Studies) and VII Sem - 22CV7BSBFE (Biology for Engineers)] is mentioned in the syllabus as offline exam. BOS members consented to change it as an online exam for SEE with MCQs.

At the end, HOD conveyed thanks to all the BOS members for giving their valuable suggestions and feedback on the all PG program scheme and syllabus of AY 2024-25.



B.M.S. College of Engineering, Bengaluru-560 019

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DEPARTMENT OF CIVIL ENGINEERING

Addendum to BOS meeting held on 10-12-24

The first semester scheme and syllabus of PG (Construction Technology), PG (Environmental Engineering) and PG (Transportation Engineering and Management) that was approved by BOS members on 10.12.2024 for AY 2024-25 was slightly modified later to be in line with the VTU scheme as per advice from Dean(academics). In view of this, one course was introduced, common to all 3 PG programs.

The course “Artificial Intelligence and Applications in Civil Engineering” (MCV102) is introduced and one of the course title is renamed as “Numerical methods and optimization Techniques” in the first semester.

The modified first semester scheme of all PG programs of Civil Engineering was approved by the BOS members.

Shreekanth
11-12-2024




B.M.S. COLLEGE OF ENGINEERING, Bengaluru-19
(Autonomous Institute, Affiliated to VTU)

Board of Studies (BoS), Electrical Cluster

Proceedings of BoS meeting held on 21/12/2024

The Electrical Cluster BoS meeting was conducted on 21/12/2024 and following were the members present for the meeting.

SN o	Category	Status	Name
1	Electrical Cluster	Chairperson	Dr. Veena N Hegde, Professor, EIE
2	Head of the Department	Member	Dr.R .S. Geetha, HoD, EEE
3			Dr. K. P. Lakshmi, HoD ,ECE
4			Dr. Balchandra K., HoD, ETE
5			Dr. Santosh R. Desai, HoD, EIE
6			Dr. R. Jayagowri, HoD, ML
7	Subject Experts with in college covering different specializations nominated by HoD.	Member	Dr.C. Lakshminarayana, Professor, EEE
8			Dr.Usha. A, Associate Prof. EEE
9			Dr. S. B. Bhanu Prashanth, Professor,ML
10			Dr. K Vijayalakshmi , Professor ,ML
11			Dr. Dr. Suma M.N, Professor, ECE
12			Dr. N Srinivasa Rao, Associate Prof., ETE
13			Dr. Veena M.B, Associate Prof. ECE
14			Dr. Preethi K. Mane, Associate Prof. EIE
15			Dr. Kiran Bailey, Assistant Prof .ECE
16			Dr. Surendra H H, Assistant Prof. ECE
17	Subject Experts from outside the College nominated by Academic Council		Dr. Narayanan G Professor, Dept. of Electrical Engineering IISc , Bangalore
18			Vijayrajan A, Founder & CTO, InnAccel Bengaluru
19	Expert from outside College, nominated by Vice Chancellor – Visvesvaraya Technological University (VTU)	Member	Dr. Kumaraswamy,Professor, Department of Electronics and Communication Engineering, Siddaganga Institute of Technology, Tumkur

The BoS meeting for the Electrical Cluster was held at the Library, Department of EIE, B.M.S College of Engineering, on 21st December 2024. The meeting saw participation from Cluster BoS representatives both in-person and online.

Dr. Veena N. Hegde, the Cluster Chairperson, warmly welcomed all BoS members to the session. The HoD of Electrical and Electronics Engineering presented the first- and second-semester scheme and syllabus for the M.Tech program in Power Electronics. Similarly, the HoD of Electronics and Communication Engineering presented the first-semester scheme and syllabus, as prescribed by VTU, for M.Tech programs in Digital Communication Engineering, Electronics, and VLSI Design & Embedded Systems.

Based on suggestions from external BoS experts, more focus on curricular reforms aligned with industry requirements were elaborated. These discussions emphasized balancing academic and industry perspectives, exploring the feasibility of industry collaborations.

The Department of Electrical Engineering also presented the syllabus for a new institution-level open elective course (24EE6OEAMM) for BoS approval.

General points for the PG scheme and syllabus were subsequently discussed, as the proposed syllabi were placed for approval.

I. Department of Electrical and Electronics Engineering (EEE):

Syllabus- Semester-I

Course Title:	Advanced Engineering Mathematics		
Course Code:	MEE101	CIE MARKS	50
L:T:P :	(3:0:0)	SEE MARKS	100
Credits:	03	EXAM HOURS	03
Suggestions:			
Suggested to retain syllabus for First 4 units and for the last unit, AI fundamental and applications to Power Electronics domain.			

Course Title:	Advanced Modelling Methods in Power Electronics Systems		
Course Code:	MEE102	CIE MARKS	50
L:T:P :	(3:0:1)	SEE MARKS	100

Credits:	04	EXAM HOURS	03
Suggestions: <ul style="list-style-type: none"> • Wide band gap device modelling topic can be discussed with Semiconductor devices topics. • HVDC transmission system can be considered under topic Power Electronics to Power system application. 			

Course Title:	Solid State Power Converters		
Course Code:	MEE103	CIE MARKS	50
L:T:P :	(3:0:0)	SEE MARKS	100
Credits:	03	EXAM HOURS	03
Suggestions: Suggestions within the topics proposed and additional text books to be added.			

Syllabus- Semester-II

Course Title:	AC – DC Drives		
Course Code:	MEPE201	CIE MARKS	50
L:T:P :	(3:0:1)	SEE MARKS	100
Credits:	04	EXAM HOURS	03
Suggestions: Suggested to include the following topics: chopper fed drives, current and speed control of DC drives, closed loop control of AC drives, and to emphasize on Brushless DC motors.			

Course Title:	PWM Converters and Applications		
Course Code:	MEPE204	CIE MARKS	50
L:T:P :	(3:0:0)	SEE MARKS	100
Credits:	03	EXAM HOURS	03
Suggestions: Unit 1 to include the following topics : Electronic switches and Power converter topologies			

For VI Semester : U.G

OPEN ELECTIVE COURSE

Subject:	Advanced Micro fabrication & Device Manufacturing
Course Code:	24EE6OEAMM

Module 2 : suggested to change the title as 'Basics of MOSFETs and FinFETs'

II. Department of Electronics and Communication Engineering (ECE):

The VTU guidelines with respect to I semester courses will be followed in all the three M.Tech programs offered by the department of ECE.

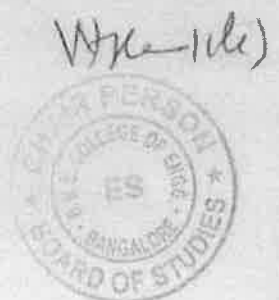
Specific Ratifications placed for Approval :

Dept. of ECE:

NEP2 NEP1 Equivalence

3rd sem	
NEP2	NEP1
23EC3PCAEC (3:0:0)	22EC3PCAEC (3:1:0)
23EC3PCSAS (3:0:1)	22EC3PCSAS (3:0:1)
23ES3PCNAL (2:1:0)	22ES3PCNAL (2:1:0)
23EC3PCIEL (0:0:1)	22EC3PCIEL (0:0:1)
23EC3AEHPL (0:0:1)	22EC3AEHDL (0:0:1)
4th sem	
NEP2	NEP1
23ES4ESCST (2:1:0)	22ES4ESCST (3:1:0)
23EC4PCFAW (2:1:0)	22EC4PCFAW (2:1:0)
23ES4PCAPP (3:0:1)	22ES4PCAPP (3:0:1)
23EC4PCPCS (3:0:1)	22EC4PCPCS (3:0:1)
5th sem	
NEP2	NEP1
23EC5PCFOV (3:0:0)	22EC5PCFOV (3:0:0)
23EC5PCMTA (3:1:0)	22EC5PCMTA (3:1:0)
23EC5PCDSP (3:0:0)	22ES5PCDSP (3:0:1)
23EC5PCDCT (3:0:1)	22EC5PCDCT (3:0:0)
23EC5PE1IP (3:0:0)	22EC5PE1IP (3:0:0)
23EC5PE1SC (3:0:0)	22EC5PE1SC (3:0:0)
23EC5PE1AI (3:0:0)	22EC5PE1AI (3:0:0)
23EC5PE1AD (3:0:0)	22EC5PE1AD (3:0:0)
23EC5PE1IC (3:0:0)	22EC5PE1IC (3:0:0)
23EC5PE1VR (3:0:0)	22EC5PE1VR (3:0:0)
23EC5PE1OS (3:0:0)	22EC5PE1OS (3:0:0)
23EC5PE1IT (3:0:0)	22EC5PE1IT (3:0:0)
23EC5PE1OP (3:0:0)	22EC5PE1OP (3:0:0)

23ES5HSPMF (2:0:0)	22ES5HSPMF (2:0:0)
6th sem	
NEP2	NEP1
23EC6PCCCN (3:0:1)	22EC6PCCCN (3:0:1)
23EC6PCMSD (3:0:1)	22EC6PCMSD (3:0:1)
23EC6PE2CV (3:0:0)	22EC6PE2CV (3:0:0)
23EC6PE2ML (3:0:0)	22EC6PE2ML (3:0:0)
23EC6PE2SV (3:0:0)	22EC6PE2SV (3:0:0)
23EC6PE2DE (3:0:0)	22EC6PE2DE (3:0:0)
23EC6PE2DS (3:0:0)	22EC6PE2DS (3:0:0)
23EC6PE2MC (3:0:0)	22EC6PE2MC (3:0:0)
23EC6PE2WN (3:0:0)	22EC6PE2WN (3:0:0)
23EC6PE2VR (3:0:0)	22EC6PE2VR (3:0:0)
23EC6OE1IR (3:0:0)	22EC6OE1IR (3:0:0)
8th sem	
23EC8OE3MT? (3:0:0)	22EC8OE3MT (3:0:0)





Department of Mechanical Engineering, BMSCE, Bengaluru

MINUTES OF THE 44th BOS MEETING HELD ON WEDNESDAY 15.01.2025 AT 4.00 P.M. THROUGH ONLINE AND OFFLINE MODE.

Members Present:

External Members			Internal Members		
1	Dr. Ramsharan Rangarajan	6	Dr. H. M. Shivaprasad	12	Dr. R. Suresh Kumar
2	Dr. Ramprabhu	7	Dr. G. Giridhara	13	Dr. K. Veerabhadrappe
3	Dr. C. K. Umesh	8	Dr. L. Ravikumar	14	Prof. Nirupama Mohan
4	Mr. Vasanth Kumar	9	Dr. Tataram K. Chavan	15	Dr. Shivashankar R Srivatsa
5	Mr. Vivek	10	Dr. Vardhaman S Mudakappanavar	16	Dr. Sangamesh C. Godi
		11	Dr. G. Saravanakumar		

Agenda:

1. Approval of M. Tech Machine Design Scheme for I to IV Semesters (2024)
2. Approval of Syllabus of First Semester M.Tech Machine Design
3. To shift an open elective course Optimization Techniques 23ME7OEOP to 6th semester as an Open Elective with the following course code 25ME6OEOP with the same syllabus

The Chairman - BOS extended a cordial welcome to all the members present and briefed the Agenda. The following points were noted.


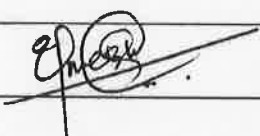



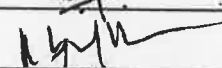
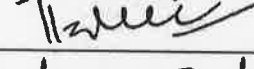

Proposed scheme for I to IV Semester M.Tech Machine Design was presented by the program coordinator for discussion and approval.

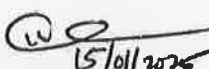
- Expert members appreciated the program structure, specialized courses and the choice of electives proposed in the curriculum like Machine Learning, Design for Sustainability, Mechatronics, etc.
- Dr. Ramprabhu emphasized inclusion of Digital Twin Technology in related courses like Mechatronics.
- Dr. Ramsharan enquired about course content for various courses and the same were appreciated and approved.
- Mr. Vasanthkumar suggested that semester commencement and ending has to be advanced to facilitate Industry hiring.
- Mr. Vivek insisted involving Industry experts for providing insights, for a couple of sessions, in terms of software applications for industrial applications can be exercised for various courses.
- Discussion on pattern of SEE examination question paper was held regarding the number of question choices to be provided. It was opined that outcome of HODs council and Academic council meeting would be followed and implemented.

- All the members granted their consensus and the board granted approval for the proposed scheme (I to IV Semester) and syllabus of M.Tech Machine Design Program.
- Approval was also granted by the board for shifting open elective on Optimization Techniques from 7th Semester to 6th Semester with the proposed Syllabus.

The meeting concluded with a vote of thanks from the chairperson.

BOS Members:

Sl. No.	Status	Name	Signature
1	Chairperson	Dr. H. M. Shivaprasad	
2	External Members	Dr. Ramsharan Rangarajan	
3		Dr. Ramprabhu	
4		Dr. C. K. Umesh	
5		Mr. Vasanth Kumar	
6		Mr. Vivek	
7	Internal Members	Dr. G. Giridhara	
8		Dr. L. Ravikumar	
9		Dr. Tataram K Chavan	
10		Dr. Vardhaman S Mudakappanavar	
11		Dr. G. Saravanakumar	
12		Dr. R. Suresh Kumar	
13		Dr. K. Veerabhadrapa	
14		Prof. Nirupama Mohan	
15		Dr. Shivashankar R Srivatsa	
16		Dr. Suhas B.G.	leave of absence
17		Dr. Sangamesh C Godi	


15/01/2024
Dr. H.M. Shivaprasad
BOS Chairperson



B.M.S. College of Engineering
Department of Computer Science and Engineering Board of Studies
Computer Science and Engineering

Minutes of the External BOS Meeting

Venue: Seminar Hall on 12-12-2024 at 11:00AM

Agenda:

PG Scheme approval (2024-2025)

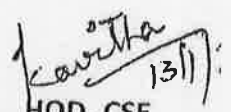
Member Present External:

SL NO	NAME	DESIGNATION
1.	Dr. Vidya Raj C (Online)	Professor, Department of CSE, National Institute of Engineering (NIE), Mysuru -570008
2.	Dr. Asha T (Online)	Professor, Department of CSE, Bangalore Institute of Technology, Bangalore
3.	Mr. Karthik A (Online)	Manager , Citibank, Bangalore
4.	Mr. Shravan S K (Online)	Research Fellow, Technical Secretariat to the National Steering Committee for National Curriculum Framework 2022-23 (NCF)
5.	Dr. Shobha G (Online)	Professor, Department of CSE, RV College of Engineering, Bangalore

Member Present Internal:

SL NO	NAME	DESIGNATION
1.	Dr. Jyothi S Nayak	Professor & HoD
2.	Dr. G R Prasad	Professor
3.	Dr. Kavitha Sooda	Professor
4.	Dr. Kayarvizhy N	Professor
5.	Dr. Selva Kumar S	Associate Professor
6.	Dr. Nandhini Vineeth	Associate Professor

1. HoD welcomed the BOS members and Dr. Kavitha Sooda Presented PG Scheme to the external BOS member
2. BOS members have given the following suggestions for the PG Scheme
 - Karthik suggested to make multicore architecture and programming as a core subject and Computer Network as an open elective
 - Dr. Asha T suggested to introduced Cyber Security instead of Machine Learning and to introduce Generative AI one of the Elective
 - Shravan has suggested to introduce interdisciplinary subjects
 - Subject on testing related concepts can be introduced
 - Syllabus to be framed keeping VTU and other autonomous college content
 - 1st year courses should be same across the M.Tech Courses offered in the college / VTU (CNE & CSE)
3. The following are suggestions for syllabus content
 - Advances in DS
 - i. Unit 4 to be refined
 - ii. 2-0-1 (LPT)
 - iii. Unit 3 (Application specific concepts)
 - iv. Remove overlapping concept with UG
 - v. Latest ref book to be added
 - Intelligent System
 - i. Overlapping concept with AI should be removed
 - ii. Expand unit 5
 - Advanced CN
 - i. Start the syllabus with IP v6
 - ii. SDN Concepts can be spread to 2 UNITS
 - iii. Add IoT protocols Concepts
 - Data Science
 - i. Depth concepts to be introduced
 - Instead of SPM & AGILE, complete syllabus could be framed only AGILE or DEVOPS


HOD, CSE
Head of the Department
Department of Computer Science &
B.M.S. College of Engineering
Bangalore - 560 019.

Online Meeting Details

External BoS Meeting (PG Scheme and Syllabus)

Thursday, December 12, 2024 · 11:00am – 12:00pm

Time zone: Asia/Kolkata

Google Meet joining info

Video call link: <https://meet.google.com/jbs-cega-scw>

Or dial: (US) +1 954-228-6269 PIN: 738 965 708#





B.M.S College of Engineering, Bangalore – 19.

(Autonomous Institute, Affiliated to VTU)

Department of Computer Applications

Date: 03-01-2025

Submitted) Principal

It is to bring to your notice that due to the change in the position of HoD, the chairperson of the BOS is now changed to Dr. S. Uma. The Details of BOS team members are as follows:

Dr.S. Uma	Professor & HoD	Chairperson	BMSCE
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Internal Members				
1	Dr.D. N. Sujatha	Professor	BMSCE	Faculty members covering different specializations
2	Dr.Ch. Ram Mohan Reddy	Professor	BMSCE	
3	Dr.k. Vijayakumar	Professor	BMSCE	
4	Smt T. S. Pushpa	Assistant Professor	BMSCE	
5	Smt. K. P. Shailaja	Assistant Professor	BMSCE	
6	Smt. S. Shilpa	Assistant Professor	BMSCE	
External Members				
1	Dr.M.Mrunalini	Professor	Dept. of MCA, RV Institute of Technology & Management, Bangalore	Subject Experts from outside the College nominated by Academic Council
2	Dr. Ganesh	Professor	Dept of MCA, BMSIT, Bangalore	
3	Dr.U Srinivasulu Reddy	Associate Professor	Dept of MCA, National Institue of Technology, Tanjore main Road, NH67 near BHEL, Tiruchirappalli,Tamil Nadu – 620015	Expert form outside college nominated by Vice Chancellor – Vivesvaraya Technological University (VTU)
4	Mr. Prabhudatta Praharaja	Head Bigdata & Data Engineering	TCS, Bangalore.	Representative from industry/ Corporate sector/ allied area relating to placement nominated by academic council
5	Mr.Mekala Venkat Reddy	Consultant – Program Management.	nasscom.ai, Bangalore	Representative from industry/ Corporate sector/ allied area relating to placement nominated by academic council
Alumni				
1	Mr.Narashima Murthy SR	Site Reliability Engineer.	Google India	Postgraduate Meritorious Alumni

Kindly approve the same and oblige.

Approved
Dr

Dr
03/01/25
HoD, Dept. of Computer Applications
B M S College of Engineering
Bull Temple Road, Bangalore-560 019.



B.M.S. COLLEGE OF ENGINEERING, BANGALORE-19

(Autonomous Institute, Affiliated to VTU)

Department of Computer Applications

The minutes of the BOS meeting held on 7th Dec. 2024 at FDC at 11am

Agenda:

Review of MCA 2024 Scheme and First year Syllabus

Members present:

At the outset, Prof. S Shilpa, BoS member, welcomed all the BoS members for the meeting. Dr. Ch. Ram Mohan Reddy, HoD presented a brief profile of the department and presented draft MCA 2024 scheme and I year syllabus. The following suggestions are given by External BoS members:


- (i) Inclusion of "C Programming course" as a separate refresher course or as a part of Linux and Shell programming (Dr Mrunalini, Mr. Mekala V Reddy, and Mr. Narasimha Murthy).
- (ii) The name of "English course" can be changed to "Professional communication" or any other suitable title (Dr. Srinivasulu Reddy, Mr. Mekala V Reddy)
- (iii) The topics such as "Types of Data structures, applications, Tries, G-Tries" may be considered in Data structures course (Dr. Srinivasulu Reddy).
- (iv) Ensemble learning and Q-learning can be included in Machine learning course (Dr. Srinivasulu Reddy).
- (v) The course "Advanced topics in AI" can be renamed as "Generative AI" or any other suitable title (Dr. Srinivasulu Reddy, Prof. Mekala V Reddy)
- (vi) The course "UI/UX" can be renamed to "UI/UX design" and "Analysis and Design of algorithms" course to "Design and analysis of algorithms" (Dr. Srinivasulu Reddy).
- (vii) The topics "TLS, HTTPS, Certificates, etc." may be included in Computer Networks course (Mr. Narasimha Murthy). The CN course is to be changed to Non-Integrated course.
- (viii) Microservices and Software services may be added to "Software engineering" course (Dr. Srinivasulu Reddy).
- (ix) Reliability engineering can be added to "DevOps" course (Mr. Narasimha Murthy)
- (x) Optimization techniques need to be included as separate course since it has lot of applications in various fields including machine learning (Dr. Srinivasulu Reddy).
- (xi) The elective courses "Blockchain, Robotics, Mobile application development" may be retained based on their need in the industry. A job survey may be conducted to ascertain this aspect. (Mr. Mekala V Reddy). The course "Optimization Techniques" may be introduced as it will be beneficial to students. (Dr. Srinivasulu Reddy)
- (xii) Introduce courses "AI & Machine learning and Deep learning" instead of "Machine learning and AI & Deep learning" (Dr. Srinivasulu Reddy).

- (xiii) The name of AR/VR course may be changed to Immersive technologies (Dr. Srinivasulu Reddy).

External BoS members appreciated the efforts put by the faculty members in designing good curriculum for MCA scheme 2024.

Prof. Shilpa proposed vote of thanks to all the BoS Members

The HoD thanked all the BoS members and faculty members for their active participation and inputs on curriculum.


12/12/2024
Head, Dept. of Computer Applications
HoD, Dept. of CA
B.M.S. College of Engineering
Bull Temple Road, Bengaluru-560 019.



B.M.S. COLLEGE OF ENGINEERING, BENGALURU
Department of Management Studies & Research Centre

Date: 19/10/2024

Time: 10.30 am

Meeting of the BOS members- External and Internal to finalize the syllabus 2024-2026.

Members present:

Dr. Minu Zachariah	Chairperson
Dr. Anupama.K.Malagi	VTU-Nominee
Dr. Mathirajan	Subject Expert Joined Online
Dr. A.Satya Nandini	Internal Expert
Dr. K.R.A.Balaji	Internal Expert
Dr. Tejaswi Patil	Internal Expert
Dr. Smitha.V.Shenoy	Internal Expert
Ms. Lara Mary Matthai	Industry Expert
Mr. Vinay Suresh	Alumni Member
Dr. U.Dinesh Kumar	Subject Expert (Leave of absence)


Agenda:

1. Approval of Scheme 2024-2026.
2. Approval of Syllabus for I and II semester.

Minutes:

1. Prof. Mathirajan suggested inclusion of Operations Management instead of Logistics and Supply Chain Management in III semester.
2. Marketing to be included in II year and not in I year was suggested by Prof. Mathirajan.
3. Prof. Mathirajan strongly opined; we write to VTU to include Operations Management.
4. Ms. Lara suggested to focus on practical components in each course. She also added to incorporate cultural aspects.
5. MOB content is more was the feedback from Prof. Mallagi. She suggested to reduce theories in module 4 and she suggested to re check Module 2.

6. For ME Prof. Mallagi suggested addition of National income measurement and removal of Business Environment consumption function.
7. Prof Mathirajan suggested inclusion of Market Research Books in Marketing Elective and Predictive analytics to be more practical oriented.
8. Mr. Vinay suggested including Legal aspects of Communication in BC.
9. Prof. Mallagi suggested the following in the HRM, Module 3 career planning and dev, compensation and benefits and training and dev can be brought to next module.
10. For BRM – Prof Mathirajan suggested removing book by Kothari.
11. Prof. Tejaswi Patil suggested including Naresh Malhotra in BRM.
12. Prof. Mathirajan suggested job sequencing and project Management not required in OR but can be added to OM.
13. Prof. Mathirajan suggested removal of Gupta Sharma in Statistics and include Anderson.
14. N.D.Vohra and Taha to be removed in OR was suggested by Prof. Mathirajan.
15. Paneer Selvam book also not required for OR was suggested by Prof. Mathirajan but he suggested to add LINDO/LINGO.
16. In corporate Strategy Prof. Mallagi suggested inclusion of Business Environment.
17. Prof.Mallagi suggested to remove forms of Business in module 3 in ED. In module 5 IPR to be removed.
18. The meeting concluded with a Vote of Thanks


Professor & HOD
Dept. of Management Studies
B.M.S. College of Engineering
Bull Temple Road, Bangalore - 19

ANNEXURE – III

**Revised scheme of PG programs for batch
admitted during AY 2024-25**

Department of Civil Engineering

M.Tech. in Construction Technology

CONSTRUCTION TECHNOLOGY: I Sem M.Tech

	Course Type	Code	Course Title	Credits			Total Credits
				L	T	P	
1	BSC	MCV101	Numerical methods and Optimization Techniques	3	1	0	4
2	PCC	MCV102	Artificial Intelligence and Applications in Civil Engineering	3	0	0	3
3	PCC	MCV103	Advances in Concrete Technology	3	0	0	3
4	PEC	MCV114 X	Professional Elective – I	3	0	0	3
5	PEC	MCV115 X	Professional Elective – II	3	0	0	3
6	PCCL	MCVL106	Advanced Concrete Technology Lab	0	0	2	2
7	NCMC	MRMI107	Research Methodology and IPR	-	-	-	-
		TOTAL		15	1	2	18

Professional Elective – I		Professional Elective – II	
Course Code	Course Title	Course Code	Course Title
MCV114A	Mechanization in Construction	MCV115A	Construction Project Management
MCV114B	RS & GIS in Environmental Engg.	MCV115B	Solid and Hazardous Waste Management
MCV114C	Urban Transportation Planning	MCV115C	Geometric Design of road infrastructure
		MCV115D	Pavement Materials

CONSTRUCTION TECHNOLOGY: II semester M.Tech

	Course Type	Code	Course Title	Credits			Total Credits
				L	T	P	
1	PCC	MCCT201	Construction Economics and Finance	3	1	0	4
2	PCC	MCCT202	Sustainable Construction	3	0	1	4
3	PCC	MCCT203	Structural Masonry	3	0	0	3
4	PCC	MCCT204	Construction Quality and Safety	3	0	0	3
5	PEC-III	MCCT215X	Professional Elective-III	3	0	0	3
	PEC-IV	MCCT216X	Professional Elective IV	3	0	0	3
6	PCCL	MCCT258	Ability enhancement Course- (AEC) – BIM	0	0	2	2
		TOTAL		17	2	3	22

Construction Technology : List of Electives

Course Code	Course Name	L	T	P	Course Code	Course Name	L	T	P
MCV114A	Mechanization in Construction	3	0	0	MCCTXXXI	Pavement Design and Construction	3	0	0
MCV115A	Construction Project Management	3	0	0	MCCTXXXJ	Soil Exploration & ground Improvement Techniques	3	0	0
MCCTXXXB	Remedial Engg	3	0	0	MCCTXXXK	Advanced Design of Sub- Structures	3	0	0
MCCTXXXC	Building Science	3	0	0	MCCTXXXL	Design of Earthquake Resistant Structures	3	0	0
MCCTXXXD	Building Services and Maintenance	3	0	0	MCCTXXXM	Digital Construction	3	0	0
MCCTXXXE	Construction and Contract Management	3	0	0	MCCTXXXN	Design of Formwork	3	0	0
MCCTXXXF	Pre-Engineered Construction Technology	3	0	0	MCCTXXXP	Disaster Management	3	0	0
MCCTXXXG	Prestressed concrete	3	0	0			3	0	0
MCCTXXXH	Advanced Reinforced Concrete Design	3	0	0					
MCCTXXXO	(ONLINE MOOCs/NPTEL COURSE (12 WEEKS))								

Department of Civil Engineering

M.Tech. in Environmental Engineering

ENVIRONMENTAL ENGG : I Sem M.Tech

	Course Type	Code	Course Title	Credits			Total Credits
				L	T	P	
1	BSC	MCV101	Numerical methods and Optimization Techniques	3	1	0	4
2	PCC	MCV102	Artificial Intelligence and Applications in Civil Engineering	3	0	0	3
3	PCC	MCV104	Water Treatment Technology	3	0	0	3
4	PEC	MCV114X	Professional Elective – I	3	0	0	3
5	PEC	MCV115X	Professional Elective – II	3	0	0	3
6	PCCL	MCVL107	Water Quality Analysis Lab	0	0	2	2
7	NCMC	MRMI107	Research Methodology and IPR	-	-	-	-
		TOTAL		15	1	2	18

Professional Elective – I		Professional Elective – II	
Course Code	Course Title	Course Code	Course Title
MCV114A	Mechanization in Construction	MCV115A	Construction Project Management
MCV114B	RS & GIS in Environmental Engg.	MCV115B	Solid and Hazardous Waste Management
MCV114C	Urban Transportation Planning	MCV115C	Geometric Design of road infrastructure
		MCV115D	Pavement Materials

ENVIRONMENTAL ENGG : II semester M.Tech

	Course Type	Code	Course Title	Credits			Total Credits
				L	T	P	
1	PCC	MCEE201	Wastewater Treatment Engineering	3	0	0	3
2	PCC	MCEE202	Atmospheric Environmental Pollution and Control	3	1	0	4
3	PCC	MCEE203	Ecology and Environmental Impact Assessment	3	0	0	3
4	PCC	MCEE204	Occupational Safety and Health Administration	3	0	0	3
5	PEC-III	MCEE215 A	Environmental Planning and Management	3	0	0	3
		MCEE215 B	Operation & Maintenance of Environmental Facilities	3	0	0	
		MCEE215 C	Sustainability and Life Cycle Assessment	3	0	0	
6	PEC-IV	MCEE216 A	Environmental Legal Aspects and Policy Guidelines	3	0	0	3
		MCEE216 B	Industrial Wastewater Treatment	3	0	0	
		MCEE216 C	Transport Processes and Modelling of Aquatic Systems	3	0	0	
7	PCCL	MCEEL207	Wastewater Quality Analysis Lab	0	0	2	2
8	AEC/SEC	MCEE258	Application of Advanced Software Tools in Environmental Engineering	0	0	1	1
		TOTAL		18	1	3	22

Department of Civil Engineering

**M.Tech. in Transportation Engineering
and Management**

Transportation Engg & Management : I Sem M.Tech

	Course Type	Code	Course Title	Credits			Total Credits
				L	T	P	
1	BSC	MCV101	Numerical methods and Optimization Techniques	3	1	0	4
2	PCC	MCV102	Artificial Intelligence and Applications in Civil Engineering	3	0	0	3
3	PCC	MCV105	Traffic Engineering	3	0	0	3
4	PEC	MCV114 X	Professional Elective – I	3	0	0	3
5	PEC	MCV115 X	Professional Elective – II	3	0	0	3
6	PCCL	MCVL108	Pavement Materials Laboratory	0	0	2	2
7	NCMC	MRMI107	Research Methodology and IPR	-	-	-	-
		TOTAL		15	1	2	18

Professional Elective – I		Professional Elective – II	
Course Code	Course Title	Course Code	Course Title
MCV114A	Mechanization in Construction	MCV115A	Construction Project Management
MCV114B	RS & GIS in Environmental Engg.	MCV115B	Solid and Hazardous Waste Management
MCV114C	Urban Transportation Planning	MCV115C	Geometric Design of road infrastructure
		MCV115D	Pavement Materials

TE & M : II semester M.Tech

	Course Type	Code	Course Title	Credits			Total Credits
				L	T	P	
1	PCC	MCTE201	Analysis & Design of Pavements	3	0	0	3
2	PCC	MCTE202	Pavement Evaluation and Management	2	1	0	3
3	PCC	MCTE203	Traffic Flow Theory	3	0	0	3
4	PCC	MCTE204	Travel Behavior Modeling	3	1	0	4
5	PEC	MCTE215X	Professional Elective - III	3	0	0	3
	PEC	MCTE216X	Professional Elective - IV	3	0	0	3
7	PCCL	MCTEL207	Traffic Measurement Laboratory	0	0	2	2
8	SEC	MCTE258	Introduction to Civil 3D	0	0	1	1
		TOTAL		17	2	3	22

Professional Elective – III		Professional Elective – IV	
Course Code	Course Title	Course Code	Course Title
MCTE215A	Road Safety Engineering	MCTE216A	Transportation Economics
MCTE215B	Low Volume Roads	MCTE216B	Transport Policy and Financing
MCTE215C	GIS for Transportation	MCTE216C	Multimodal Transportation Systems

Department of Mechanical Engineering
M.Tech. in Machine Design

B. M. S. COLLEGE OF ENGINEERING, BENGALURU.
Draft Scheme of Instruction for M. Tech. (Machine Design) 2024 - 25

First Semester

Sl. No.	Course Type	Course Code	Name of the Course	Credits			Total Credits
				L	T	P	
1	BSC	MME101	Applied Mathematics	3	0	0	3
2	IPCC	MME102	Finite Element Method	3	0	1	4
3	PCC	MME103	Advanced Mechanics of Solids	3	0	0	3
4	PCC	MME104	Dynamics & Mechanism Design	3	0	0	3
5	PCC	MME105	Vibration & Acoustics	3	0	0	3
6	PCCL	MMEL106	Design Laboratory	0	1	1	2
7	NCMC	MRMI19	Research Methodology & IPR (Online-NPTEL)	0	0	0	PP
Total				15	1	2	18

Second Semester

Sl. No.	Course Type	Course Code	Name of the Course	Credits			Total Credits
				L	T	P	
1	PCC	MMMD201	Advanced Machine Design	3	0	0	3
2	IPCC	MMMD202	Advanced Finite Element Method	3	0	1	4
3	PEC	MMMD203	Program Elective – 1	3	0	0	3
4	PEC	MMMD204	Program Elective – 2	3	0	0	3
5	PEC	MMMD205	Program Elective – 3	3	0	0	3
6	MDC	MMMD206	Open Elective - 1	3	0	0	3
7	PCCL	MMMDL207	Simulation Laboratory	0	1	1	2
8	SEC	24MMMD271	Python Programming & Applications	0	0	1	1
Total				18	1	3	22

Program Electives

Program Elective – 1 (II Semester)

MMMD2031	Composite Materials Technology
MMMD2032	Statistical Modeling & Experimental Design
MMMD2033	Additive Manufacturing

Program Elective – 2 (II Semester)

MMMD2041	Tribology in Design
MMMD2042	Mechanics & Control of Robotic Manipulation
MMMD2043	Principles of CAD/CAM/CAE

Program Elective – 3 (II Semester)

MMMD2051	Fracture Mechanics
MMMD2052	Design for Manufacture & Assembly
MMMD2053	Product Lifecycle Management

Open Elective – 1 (II Semester)

MMMD2061	Machine Learning
MMMD2062	Mechatronics for Industrial Applications
MMMD2063	Advanced Control Engineering

Note: Electives to be chosen one from each group.
 Elective will be offered for a minimum strength of six candidates (out of 18)

**Department of Electronics and
Communication Engineering**

M.Tech. in Digital Communication

M.Tech. in Digital Communication

First Semester Scheme

S.No	Course Type	Course Code	Course Title	Credits			CREDITS
				L	T	P	
1	PCC	MEC101	Advanced Machine Learning	3	0	0	3
2	IPCC	MEC102	Advanced Embedded Systems	3	0	1	4
3	PCC	MEC103	Digital Circuits & Logic	3	0	0	3
4	PEC	MEC114	Elective- 1	3	0	0	3
5	PEC	MEC115	Elective- 2	3	0	0	3
6	PECL	MECL116X	Lab Elective	0	0	2	2
7	NCMC	MRMI107	Research Methodology & IPR	0	0	0	0
		Total		15	0	3	18

Professional Elective I		Professional Elective II	
MEC114A	ASIC Design	MEC115A	System Verilog
MEC114B	Advanced Computer Networking	MEC115B	Advanced Wireless Communication
MEC114C	Advanced Signal Processing	MEC115C	Multimedia & Applications
MEC114D	Advanced Digital IC design	MEC115D	Advanced Digital Communications
MEC114E	Advanced DSP	MEC115E	Static Timing Analysis
MEC114F	Data Networks	-	-

Lab Elective			
MECL116A	Advanced Machine Learning and Deep Learning Lab	MECL116B	Electronics and Communication Lab
MECL116C	Digital System Design Lab		

M.Tech. in Digital Communication

Second Semester Scheme

Sl. No	Course Type	Course Code	Course Title	Credits			CREDITS
				L	T	P	
1	PCC	MLEL201	Antenna Theory and Design	3	0	0	3
2	IPCC	MLEL204	Real Time operating systems	3	0	1	4
3	PCC	MLEL205	Low power VLSI Design	3	0	0	3
4	PCC	MLEL206	VLSI Testing and Verification	3	0	0	3
5	PEC	MLEL215x	Elective-3	3	0	0	3
6	PEC	MLEL216x	Elective-4	3	0	0	3
7	PECL	MLEL209	VLSI Testing and Verification Lab	0	0	2	2
8	AEC/SEC	MLEL258x	Ability/Skill Enhancement Course(Offline/Online)	1	0	0	1
		Total		19	0	3	22

Professional Elective 3		Professional Elective 4	
MLEL215A	CMOS RF Circuit Design	MLEL216A	Mechatronics
MLEL215B	Statistical Signal Processing	MLEL216B	Internet of Things and Applications
MLEL215C	Probability and Random Process	MLEL216C	Cyber Security
MLEL215D	Simulation Modelling and Analysis	MLEL216D	Automotive Electronics
MLEL215E	Scripting Languages	MLEL216E	Cryptography and Network security

**Department of Electronics and
Communication Engineering**

M.Tech. in Electronics

M.Tech. in Electronics

First Semester Scheme

S.No	Course Type	Course Code	Course Title	Credits			CREDITS
				L	T	P	
1	PCC	MEC101	Advanced Machine Learning	3	0	0	3
2	IPCC	MEC102	Advanced Embedded Systems	3	0	1	4
3	PCC	MEC103	Digital Circuits & Logic	3	0	0	3
4	PEC	MEC114	Elective- 1	3	0	0	3
5	PEC	MEC115	Elective- 2	3	0	0	3
6	PECL	MECL116X	Lab Elective	0	0	2	2
7	NCMC	MRMI107	Research Methodology & IPR	0	0	0	0
		Total		15	0	3	18

Professional Elective I		Professional Elective II	
MEC114A	ASIC Design	MEC115A	System Verilog
MEC114B	Advanced Computer Networking	MEC115B	Advanced Wireless Communication
MEC114C	Advanced Signal Processing	MEC115C	Multimedia & Applications
MEC114D	Advanced Digital IC design	MEC115D	Advanced Digital Communications
MEC114E	Advanced DSP	MEC115E	Static Timing Analysis
MEC114F	Data Networks	-	-

Lab Elective			
MECL116A	Advanced Machine Learning and Deep Learning Lab	MECL116B	Electronics and Communication Lab
MECL116C	Digital System Design Lab		

M.Tech. in Electronics

Second semester scheme

S.No	Course Type	Course Code	Course Title	Credits			CREDITS
				L	T	P	
1	IPCC	MLDC201	Antenna Theory and Design	3	0	1	3
2	PCC	MLDC203	Cryptography and Network Security	3	0	0	3
3	PCC	MLDC205	Multimedia communication	3	0	0	4
4	PCC	MLDC206	Real Time Operating Systems	3	0	0	3
5	PEC	MLDC215X	Elective- 3	3	0	0	3
6	PEC	MLDC216X	Elective- 4	3	0	0	3
7	PECL	MLDCL207	High Frequency Component Design Lab	0	0	2	2
8	AEC/SEC	MLDCL257X	Ability / Skill Enhancement Course(Offline/Online)	1	0	0	1
Total				19	0	3	22

Professional Elective 3		Professional Elective 4	
--	--	MLDC216A	High Speed Communication Networks
MLDC215B	Statistical Signal Processing	MLDC216B	Applied Cyber Security
MLDC215C	Probability and Random Process	MLDC216C	Optical Communication and Networking
MLDC215D	Simulation Modelling and Analysis	MLDC216D	Error Control Coding
MLDC215E	Scripting languages	MLDC216E	Automotive Electronics

**Department of Electronics and
Communication Engineering**

**M.Tech. in VLSI Design and Embedded
Systems**

M.Tech. in VLSI Design & Embedded Systems

First Semester Scheme

S.No	Course Type	Course Code	Course Title	Credits			CREDITS
				L	T	P	
1	PCC	MEC101	Advanced Machine Learning	3	0	0	3
2	IPCC	MEC102	Advanced Embedded Systems	3	0	1	4
3	PCC	MEC103	Digital Circuits & Logic	3	0	0	3
4	PEC	MEC114	Elective- 1	3	0	0	3
5	PEC	MEC115	Elective- 2	3	0	0	3
6	PECL	MECL116X	Lab Elective	0	0	2	2
7	NCMC	MRMI107	Research Methodology & IPR	0	0	0	0
Total				15	0	3	18

Professional Elective I		Professional Elective II	
MEC114A	ASIC Design	MEC115A	System Verilog
MEC114B	Advanced Computer Networking	MEC115B	Advanced Wireless Communication
MEC114C	Advanced Signal Processing	MEC115C	Multimedia & Applications
MEC114D	Advanced Digital IC design	MEC115D	Advanced Digital Communications
MEC114E	Advanced DSP	MEC115E	Static Timing Analysis
MEC114F	Data Networks	-	-

Lab Elective			
MECL116A	Advanced Machine Learning and Deep Learning Lab	MECL116B	Electronics and Communication Lab
MECL116C	Digital System Design Lab		

M.Tech. in VLSI Design & Embedded Systems

Second Semester Scheme

Sl. No	Course Type	Course Code	Course Title	Credits			CREDITS
				L	T	P	
1	PCC	MLVS 201	Design of Analog and Mixed Mode VLSI Circuits	3	0	0	3
2	PCC	MLVS 202	VLSI Testing and verification	3	0	0	3
3	IPCC	MLVS204	Real Time Operating Systems	3	0	1	4
4	PCC	MLVS 205	LP VLSI Design	3	0	0	3
5	PEC	MLVS 215X	Elective-3	3	0	0	3
6	PEC	MLVS 216X	Elective-4	3	0	0	3
7	PECL	MLVS L209	VLSI Testing and Verification Lab	0	0	2	2
8	AEC/SEC	MLVS 258x	Ability/Skill Enhancement Course(Offline/Online)	1	0	0	1
Total				19	0	3	22

Professional Elective 3		Professional Elective 4	
MLVS215A	FinFETs and Other Multi-Gate Transistors	MLVS216A	Reconfigurable Computing
MLVS215B	Hardware Security	MLVS216B	Long term reliability of VLSI Systems
MLVS215D	Embedded Linux System Design and Development Processing	MLVS216D	RISCV
MLVS215E	Physical Design	MLVS216E	Cryptography and network security
MLVS215F	Scripting Languages	MLVS216F	Arm Cortex M3 and M4

**Department of Electrical and
Electronics Engineering**

M.Tech. in Power Electronics

Semester-I

Course Type	Code	Course Title	Credits			Total Credits	Total Hours
			L	T	P		
BSC	MEE101	Advanced Engineering Mathematics	3	0	0	3	3
IPCC	MEE102	Advanced Modelling Methods in Power Electronics Systems	3	0	1	4	5
PCC	MEE103	Power Devices and Solid State Power Converters	3	0	0	3	3
PEC	MEE104	Energy Ecology and Environment	3	0	0	3	3
PEC	MEE105	Embedded Controllers for Energy Management	3	0	0	3	3
PCCL	MEEL106A	Power Converters Laboratory	1	0	1	2	3
	MEEL106B	Energy Laboratory					
NCMC	MRMI107	Research Methodology and IPR (Online)	Online course (online.vtu.ac.in)			PP	
TOTAL			16	0	2	18	20

Semester-II

Course Type	Code	Course Title	Credits			Total Credits	Total Hours
			L	T	P		
IPCC	MEPE201	AC and DC drives	3	0	1	4	5
OEC	MEPE212	Python Programming	2	1	0	3	4
PCC	MEPE203	Switched Mode Power Conversion	3	0	0	3	3
PCC	MEPE204	PWM converters and applications	3	0	0	3	3
PEC	MEPE215x	Professional Elective III	3	0	0	3	3
PEC	MEPE216x	Professional Elective IV	2	1	0	3	4
PCCL	MEPEL207	SMPC laboratory	0	0	2	2	4
AEC	24EPE258A	Ki CAD software	0	0	1	1	2
TOTAL			16	2	4	22	28

Professional Elective III		Professional Elective IV	
MEPE215A	Power Electronics System design using ICs	MEPE216A	HVDC and FACTS
MEPE215B	Power quality enhancement using custom power devices	MEPE216B	Renewable Energy & Photovoltaics
MEPE215C	Advanced control systems	MEPE216C	Advanced Micro fabrication & Device Manufacturing

**Department of Computer Science and
Engineering**

**M.Tech. in Computer Science and
Engineering**



DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
B.M.S. COLLEGE OF ENGINEERING, BENGALURU
Autonomous Institute affiliated to VTU

M.Tech. In Computer Science and Engineering											
I SEMESTER											
Sl. No	Course	Course Code	Course Title	Teaching Hours per Week			Examination				Credits
				Theory	Tutorial/ Skill Development Activities	Practical/Seminar	Duration in hours	CIE Marks	SEE Marks	Total Marks	
				L	T/SDA	P					
1	PCC	MCS101	Artificial Intelligence	0	00	00	0	50	50	100	3
2	PCC	MCS102	Data Science and Management	0	00	00	0	50	50	100	3
3	PCC	MCS103	Data Structures & Algorithms for Problem Solving	0	00	00	0	50	50	100	3
4	PCC	MCS104A	Multicore Architecture & Programming	0	00	00	0	50	50	100	3
5	IPCC	MCS105B	Forensic Security	0	00	02	0	50	50	100	4
6	PCCL	MCSL106	Algorithms & AI Laboratory *	0	00	02	0	50	50	100	2
7	NCMC	MRMI107	Research Methodology and IPR (Online)	Online courses (online.vtu.ac.in)							0
								300	300	600	18
<p>Note: BSC-Basic Science Courses, PCC: Professional Core Courses. IPCC-Integrated Professional Core Courses, PCC(PB): Professional Core Courses (Project Based), PCCL-Professional Core Course lab , NCMC- Non Credit Mandatory Course, L-Lecture, P-Practical, T/SDA-Tutorial / Skill Development Activities (Hours are for Interaction between faculty and students)</p> <p>MRMI107- Research Methodology and IPR (Online) for the students who have not studied this course in the Undergraduate level. This course is not counted for vertical progression, students have to qualify for the award of the master's degree.</p>											



DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
B.M.S. COLLEGE OF ENGINEERING, BENGALURU
Autonomous Institute affiliated to VTU

M.Tech. In Computer Science and Engineering											
II SEMESTER											
Sl. No	Course	Course Code	Course Title	Teaching Hours / Week			Examination				Credits
				Theory	Tutorial/ Skill Development Activities	Practical/Seminar	Duration in hours	CIE Marks	SEE Marks	Total Marks	
				L	T/SDA	P					
1	PCC	MSCS201	DevOps and MLOps	02	02	00	04	50	50	100	3
2	PCC	MSCS202	Deep Learning and Generative AI	03	00	00	03	50	50	100	3
3	IPCC	MSCS203	Cloud Computing and Infrastructure Management	03	00	01	05	50	50	100	4
4	PEC1	MSCS214x	Professional Elective-1	03	00	00	03	50	50	100	3
5	PEC2	MSCS215x	Professional Elective-2	03	00	00	03	50	50	100	3
6	PBLC	MSCS286	Mini Project/Technology-Based Societal Project	00	00	03	06	50	50	100	3
7	PCCL	MSCSL207	Deep Learning and Generative AI Lab	00	00	02	04	50	50	100	2
8	AEC/SEC	MSCS258x	Ability/Skill Enhancement Course (Offline/Online)	00	00	02	04	50	50	100	1
TOTAL								450	350	800	22
Note: PCC : Professional Core Courses. IPCC -Integrated Professional Core Courses, PCC(PB) : Professional Core Courses (Project Based), PCCL -Professional Core Course lab, PEC - Professional Elective Courses, MDC - Multi-Disciplinary Courses, L -Lecture, P -Practical, T/SDA -Tutorial / Skill Development Activities (Hours are for Interaction between faculty and students), PBLC : Project Based Learning Course.											
Ability / Skill Enhancement Courses											
Course Code		Course Title									
MSCS258A		Advanced Web Technology									
MSCS258B		Augmented and Virtual Reality									
MSCS258C		Competitive Coding									



DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
B.M.S. COLLEGE OF ENGINEERING, BENGALURU
Autonomous Institute affiliated to VTU

Professional Elective-1		Professional Elective-2	
MSCS214A	Advanced Cryptography	MSCS215A	Big Data Technologies
MSCS214B	Pattern Classification	MSCS215B	System and Network Security
MSCS214C	Edge and Fog Computing	MSCS215C	Applied Natural Language Processing
MSCS214D	Quantum Computing	MSCS215D	High-Performance Computer Architectures

**Department of Information Science and
Engineering**

**M.Tech. in Computer Networking and
Engineering**



B.M.S COLLEGE OF ENGINEERING, BENGALURU-19

Autonomous College under VTU
Department of Information Science and Engineering

M.Tech. Computer Networking Engineering

I SEMESTER

Sl. No	Course	Course Code	Course Title	Teaching Hours per Week			Examination				Credits
				Theory	Practical/Seminar	Tutorial/Skill Development Activities	Duration in hours	CIE Marks	SEE Marks	Total Marks	
				L	P	T/SDA					
1	PCC	MCS101	Artificial Intelligence	03	00	00	03	50	50	100	3
2	PCC	MCS102	Data Science and Management	03	00	00	03	50	50	100	3
3	PCC	MCS103	Data Structures & Algorithms for Problem Solving	03	00	00	03	50	50	100	3
4	PCC	MCS104B	Cloud Computing	03	00	00	03	50	50	100	3
5	IPCC	MCS105C	Cryptography and Network security	02	02	00	03	50	50	100	4
6	PCCL	MCSL106	Algorithms & AI Laboratory	00	02	00	03	50	50	100	2
7	NCMC	MRMI107	Research Methodology and IPR (Online)	Online courses (online.vtu.ac.in)							PP
				14	04	00	18	300	300	600	18

Note: **PCC**: Professional Core Courses. **IPCC**-Integrated Professional Core Courses, **PCC(PB)**: Professional Core Courses (Project Based), **PCCL**-Professional Core Course lab, **NMC**- Non Credit Mandatory Course, **L**-Lecture, **P**-Practical, **T/SDA**-Tutorial / Skill Development Activities (Hours are for Interaction between faculty and students) **MRMI107**- Research Methodology and IPR (Online) for the students who have **not studied** this course in the Undergraduate level. This course is not counted for vertical progression, students have to qualify for the award of the master's degree.



B.M.S COLLEGE OF ENGINEERING, BENGALURU-19

Autonomous College under VTU
Department of Information Science and Engineering

M.Tech. Computer Networking Engineering

II SEMESTER

SL No	Course Type	Course Code	Course Title	Teaching Hours per Week			Examination				Credits
				Theory	Practical/ Seminar	Tutorial/ SDA	Duration in hours	CIE Marks	SEE Marks	Total Marks	
				L	P	T/SDA					
1	PCC/PEC/ MDC/PCC(PB) /IPCC	MSCS201	Advances in Operating Systems	3	0	0	03	50	50	100	3
2		MSCN202	Advances in Computer Networks	3	0	0	03	50	50	100	3
3		MSCN203	Block Chain Technology	3	0	1	04	50	50	100	4
4		MSCN214x	Professional Elective Course 1	3	0	0	03	50	50	100	3
5		MSCN215x	Professional Elective Course 2	3	0	0	04	50	50	100	3
6		MSCN206	Mini Project with Seminar	0	2	0	03	50	50	100	3
7	PCCL	MSCNL207	Computer Network and IoT Laboratory	0	2	0	03	50	50	100	2
8	AEC/SEC	MSCS258	Skill Enhancement for Research Excellence-1	0	0	1	02	50	50	100	1
TOTAL								400	400	800	22

Note: **BSC**-Basic Science Courses, **PCC**: Professional core. **IPCC**-Integrated Professional Core Courses, **PCC(PB)**: Professional Core Courses (Project Based), **PCCL**-Professional Core Course lab, **NMC**- None Credit Mandatory Course, **L**-Lecture, **P**-Practical, **T/SDA**-Tutorial / Skill Development Activities(Hours are for Interaction between faculty and students) **MRMI19**- Research Methodology and IPR (**Online**) for the students who have **not studied** this course in the Undergraduate level. This course is not counted for vertical progression, Students have to qualify for the award of the master's degree.

M- Master program **xx** – **ME** for Mechanical Engineering Stream, **CV** for Civil Engineering Stream, **EE** – Electrical & Electronics Engineering Stream, **EC**- Electronics and Communication Engineering Stream, **CS**- Computer Science and Engineering **BA**- Business Administration **AR**- Architecture- etc.

For Professional Elective Course

Professional Elective Course-I (PEC)		Professional Elective Course-II (PEC)	
Code	Title of the Course	Code	Title of the Course
MSCN214A	Wireless Ad Hoc Networks	MSCN215A	Network Protocol Design
MSCN214B	Advances In Storage Area Network	MSCN215B	Network Programming
MSCN214C	Internet Of Things And Applications	MSCN215C	Multimedia Communications
MSCN214D	Software Defined Networks	MSCN215D	Network Management

Department of Computer Applications

Master of Computer Applications



B.M.S. COLLEGE OF ENGINEERING, BENGALURU

Autonomous Institute, affiliated to VTU

DEPARTMENT OF COMPUTER APPLICATIONS

Semester-1

Sl. No.	Course Type	Course Code	Course Title	Credits				Contact Hrs./Wk.	Marks		
				L	T	P	Total		CIE	SEE	Total
1.	BSC	MMC101	Mathematical Foundations for Computer Applications	3	0	0	3	3	50	50	100
2.	Integrated (IPCC)	MMC102	Database Management Systems	3	0	1	4	5	50	50	100
3.	Integrated (IPCC)	MMC103	Web Technologies	3	0	1	4	5	50	50	100
4.	Integrated (IPCC)	MMC104	Python Programming	3	0	1	4	5	50	50	100
5.	PCL	MMC105	Linux and Shell Programming	0	1	1	2	4	50	50	100
6.	HS	MMC106	English Course	0	0	1	1	2	50	50	100
7.	NCMC	MRMI107	Research Methodology and IPR (Online)	Online Courses (online.vtu.ac.in)						PP/NP	
8.	NCMC	MMAT108	Mathematics for MCA Students	2	1	0	3	4	100	-	100(PP/NP)
Total				12	1	5	18	24	300	300	600

MRMI107-Research Methodology and IPR- Non-Credit Mandatory Course (NCMC) If students have not studied this course in their undergraduate program then he /she has to take this course at <http://online.vtu.ac.in> and to qualify for this course is compulsory before completion of the minimum duration of the program (Two years), however, this course will not be considered for vertical progression.

Bridge Course: Non-Credit Mandatory Course MMAT108-Mathematics for MCA Students: Students who have not taken Mathematics at the 10+2 or degree level must study and pass this course in the 1st semester. However, this course/subject will not be considered for vertical progression.

BSC: Basic Science Courses

IPCC: Integrated Professional Core Courses.

PCC: Professional Core Course

PCL: Professional Core lab

NCMC: None Credit Mandatory Course

HS/SDA: Humanities, Social Science, Management/Skill Development Activities

RMI: Research Methodology & IPR

PEC: Professional Elective Course

PCC(PB): Professional Core Courses (Project Based)



B.M.S. COLLEGE OF ENGINEERING, BENGALURU

Autonomous Institute, affiliated to VTU

DEPARTMENT OF COMPUTER APPLICATIONS

Semester -2

Sl. No.	Course Type	Course Code	Course Title	Credits				Contact Hrs./Wk.	Marks		
				L	T	P	Total		CIE	SEE	Total
1.	Integrated (IPCC)	MMC201	Data Structures	3	0	1	4	5	50	50	100
2.	Integrated (IPCC)	MMC202	Artificial Intelligence and Machine Learning	3	0	1	4	5	50	50	100
3.	Integrated (IPCC)	MMC203	Computer. Networks	2	1	0	3	4	50	50	100
4.	Integrated (IPCC)	MMC204	Java Programming	3	0	1	4	5	50	50	100
5.	Non-Integrated (HS)	MMC205	Software Project Management	3	0	0	3	3	50	50	100
6.	NCMC	MMCPA206	Physical Activity	-	-	-	-	-	-	-	PP/NP
7.		Professional Elective -1 (A)									
	PEC (Professional Elective Course)	MMCE20A1	Augmented Reality	3	0	1	4	5	50	50	100
		MMCE20A2	Big Data Analytics								
		MMCE20A3	Advanced Web Programming								
		MMCE20A4	.Net Programming								
		MMCE20A5	Deep Learning								
Total				17	1	4	22	27	300	300	600

MMCPA206: Students can participate in any physical activities such as Sports, Yoga, etc.

**Management studies and Research
Centre**

Master of Business Administration



I Semester

Sl. No.	Course	Course Code	Course Title	Teaching Hours /Week		Examination				Credits
				Theory	Practical component	Duration in hours	CIE Marks	SEE Marks	Total Marks	
1	PCC	MBA101	Management and Organizational Behaviour	04	00	03	50	50	100	04
2	PCC	MBA102	Financial Accounting & Reporting	04	00	03	50	50	100	04
3	PCC	MBA103	Economics for Decision Making	04	00	03	50	50	100	04
4	PCC	MBA104	Business Statistics	04	00	03	50	50	100	04
5	PCC	MBA105	Marketing Management	04	00	03	50	50	100	04
6	PCC	MBA106	Managerial Communication	04	00	03	50	50	100	04
TOTAL				24	00	18	300	300	600	24



II SEMESTER

Sl. No	Course	Course Code	Course Title	Teaching Hours /Week		Examination				Credits
				Theory	Practical Component	Duration in hours	CIE Marks	SEE Marks	Total Marks	
1	PCC	MBA201	Human Resources Management	04	00	03	50	50	100	04
2	PCC	MBA202	Financial Management	04	00	03	50	50	100	04
3	PCC	MBA203	Research Methodology and IPR	04	00	03	50	50	100	04
4	PCC	MBA204	Operations Research	04	00	03	50	50	100	04
5	PCC	MBA205	Corporate Strategy	04	00	03	50	50	100	04
6	PCC	MBA206	Entrepreneurship Development	04	00	03	50	50	100	04
7	SEC	MBASP287	Societal Project	-	-	-	-	-	-	-
TOTAL				24	00	18	300	300	600	24

ANNEXURE – IV

**Approved scheme for fourth year UG programs
(for the batches admitted during AY 2021-22 & 2022-23)**



B.M.S. COLLEGE OF ENGINEERING, BENGALURU-19
Autonomous Institute, Affiliated to VTU

8th SEMESTER SCHEME
for the batch admitted during AY 2021 - 2022



BMS COLLEGE OF ENGINEERING BENGALURU

Autonomous institute, affiliated to VTU

Department of Civil Engineering

8th Semester Scheme

for the batch admitted during AY 2021-22



B. M. S. COLLEGE OF ENGINEERING, BENGALURU
DEPARTMENT OF CIVIL ENGINEERING

Scheme for VIII sem B.E

(Admission year 2021-2022).

wef: AY 2024-25

Course Type	Code	Course Title	Teaching Dept.	Credits			Total Credits	Contact Hours /week	Marks			SEE duration (Hours)
				L	T	P			CIE	SEE	Total	
PE-4	22CV8PExxx	Program Elective-4	Civil	3	0	0	3	3	50	50	100	3
PW-5	22CV8PWMP2	Major project Phase-2	Civil	0	0	5	5	10	100	100	200	1
OE-3	22CV7OExxx	Open Elective-3	Civil	3	0	0	3	3	50	50	100	3
HS-9	22CV8HSPPC	Professional Practice	Civil	2	0	0	2	2	50	50	100	3
HS-10	25MA8HSIKS	Indian knowledge System	Civil/ humanities	1	0	0	1	1	50	50	50	
INT-2	22CV8SRIN2	Seminar on Technical Internship	Civil	0	0	2	2	1	50	50	100	1
				TOTAL			16	20hrs			650	
		Details of 100 AICTE activity points										



B. M. S. COLLEGE OF ENGINEERING, BENGALURU
DEPARTMENT OF CIVIL ENGINEERING

Scheme for VIII sem B.E

(Admission year 2021-2022).

Electives

wef: AY 2024-25

Course Type	Code	Course Title	Teaching Dept.	Credits			Total Credits	Contact Hours /week	Marks			SEE duration (Hours)
				L	T	P			CI E	SE E	Total	
PE-4	22CV8PEERD	Earthquake Resistant Design of Structures	Civil	3	0	0	3	3	50	50	100	3
PE-4	22CV8PEELA	Environmental Impact Assessment	Civil	3	0	0	3	3	50	50	100	3
PE-4	22CV8PEGSR	Geosynthetics and Soil Reinforcement	Civil	3	0	0	3	3	50	50	100	3
PE-4	22CV8PEIWM	Integrated Watershed Management	Civil	3	0	0	3	3	50	50	100	3
PE-4	22CV8PEUTP	Urban Transport Planning	Civil	3	0	0	3	3	50	50	100	3
		Open electives										
OE-3	22CV8OEOSH	Occupational safety and Health Administration		3	0	0	3	3	50	50	100	3
OE-3	22CV8OESLA	Sustainability and life cycle Assessment	Civil	3	0	0	3	3	50	50	100	3



BMS COLLEGE OF ENGINEERING BENGALURU

Autonomous institute, affiliated to VTU

Department of Mechanical Engineering

8th Semester Scheme

for the batch admitted during AY 2021-22



DEPARTMENT OF MECHANICAL ENGINEERING

Scheme & Syllabus for UG Programme - I & VIII Semesters

SCHEME OF INSTRUCTION FOR FOURTH YEAR B.E.

8th SEMESTER

	Code	Course Title	Credits				Contact Hours	Marks			SEE Hrs
			L	T	P	Tot		CIE	SEE	Tot	
1	22ME8PEXXX	Program Elective-4	3	0	0	3	03	50	50	100	3
2	22ME8PWPW4	Project-4	0	0	5	5	10	50	50	100	3
3	22**8IE**	Open Elective-3	3	0	0	3	03	50	50	100	3
4	25MA8HSIKL	Indian Knowledge system	1	0	0	1	01				
5	22ME8HSIPR	Intellectual Property Right	2	0	0	2	02	50	50	100	3
6	22ME8SRIN3	Internship	0	0	2	2	04	50	50	100	3
7	22XX8NCMC2	Moocs Course-2	0	0	0	0	00				
	TOTAL		8	0	8	16	23	Total	500		

22ME8PE *** ELECTIVE - 4

Sl.No	Code	Course Title
1.	22ME8PEFRM	Fracture Mechanics
2.	22ME8PEGAD	Gas Dynamics
3.	22ME8PEAMP	Advanced Material Processing
4.	22ME8PEEMA	Energy Management and Auditing
5.	22ME8PETRI	Tribology

22**8IE** Open Elective -3

Sl.No	Code	Course Title
1.	22ME8OEEEG	Energy Engineering
2.	22ME8OEPST	Polymer Science and Technology
3.	22ME8OEFIM	Financial Management
4.	22ME8OEORB	Organizational Behaviour
5.	22ME8OEORE	Operation Research
6.	22ME8OEWRB	Wearable Robotics



BMS COLLEGE OF ENGINEERING BENGALURU

Autonomous institute, affiliated to VTU

**Department of Electrical & Electronics
Engineering**

**8th Semester Scheme
for the batch admitted during AY 2021-22**

SCHEME FOR EIGHTH SEMESTER

Sl No.	Code	Course title	Type	Credits				Hours	Marks		
				L	T	P	Total		CIE	SEE	Total
1	22EE8PE4XX	Program Elective -4	PE-4	3	0	0	3	3	50	50	100
2	22EE8PWPJ4	Project -4	PW-4	0	0	5	5	10	50	50	100
3	22EE8OE3XX	Open Elective -3	OE-3	3	0	0	3	3	50	50	100
4	22ES8HSIFE	Innovation for Entrepreneurship	HS	2	0	0	2	2	50	50	100
5	22EE8SRIN3	Internship Based Seminar	ISR	0	0	2	2	4	50	50	100
6	25MA8HSIKL	Indian knowledge system	HS	1	0	0	1	2	50	50	100
7	22EE8NCMC2	MOOCs Course - 2	NCMC-6	-	-	-	PP/NP	-	-	-	PP/NP
		Details of 20 AICTE Activity Points									
		Total		9	0	7	16	24	300	300	600

Area/Domain	Course Code	Program Elective- 4
Advances in Power Engineering	22EE8PE4PQ	Electrical power quality
Renewable Energy Resources and Electric Vehicle	22EE8PE4SS	Smart Grid & Energy Storage System
Electronics Engineering	22EE8PE4CS	Communication Systems
Computer Engineering	22EE8PE4BP	Big Data Analytics In Power Systems

Area/Domain	Course Code	Open Elective- 3
Electrical Engineering	22EE8OE3EC	Electrical Energy conservation and auditing
Mathematics	22EE8OE3EV	*Electric and Hybrid Vehicles (Expect EEE)
Computer science	22EE8OE3CB	Cyber Security
Renewable Energy Resources	22EE8OE3SG	Smart Grid Technologies

* Excluding



BMS COLLEGE OF ENGINEERING BENGALURU

Autonomous institute, affiliated to VTU

**Department of Electronics &
Communication Engineering**

8th Semester Scheme
for the batch admitted during AY 2021-22

SEMESTER: VIII

Sl. No.	Code	Course Title	Type	Credits				Hours	Marks		
				L	T	P	Total		CIE	SEE	Total
1	22EC8PE4XX	Professional Elective – 4	PE-4	3	0	0	3	3	50	50	100
2	22EC8OE3XX	Open Elective – 3	OE-3	3	0	0	3	3	50	50	100
3	22EC8PWPJ4	Project Work – 4	PW-4	0	0	6	6	12	50	50	100
4	22ES8HSIFE	Innovation for Entrepreneurship*	HS-9	2	0	0	2	2	50	50	100
5	22EC8SRIN3	Internship	INT-3	0	0	2	2	4	50	50	100
6	22EC8NCMC2	MOOCs Course – 2	NCMC-6	-	-	-	-	2	-	-	P/NP
Total				8	0	8	16	26	250	250	500

*Common to EC, EE, EI & ET

Professional Elective – 4:

Course Code	Course Title	Course Code	Course Title	Course Code	Course Title
22EC8PE4MC	Multimedia Communication	22EC8PE4AI	Applications of AI	22EC8PE4LV	Low Power VLSI
22EC8PE4NG	Next Generation Networks	22EC8PE4DS	Database Security and Access Control	22EC8PE45G	5G Enabled IoT
22EC8PE4RT	Real-Time Systems	22EC8PE4MR	Applications of Mixed Reality	22EC8PE4UX	UI/UX Design

Open Elective – 3:

Course Code	Course Title	Course Code	Course Title
22EC8OE3AE	Automotive Electronics	22EC8OE3IS	IoT for Structures
22EC8OE3AR	Applications of Robotics	22EC8OE3MT	Mobile Technology and Applications



BMS COLLEGE OF ENGINEERING BENGALURU

Autonomous institute, affiliated to VTU

**Department of Industrial
Engineering and Management**

8th Semester Scheme

For the batch admitted during AY 2021-22

NEP- 1 SCHEME OF INSTRUCTIONS FOR VIII SEMESTER

Course type	Course Code	Name of the Course	Credits			Total Credits	Contact Hrs/Wk	MARKS		
			L	T	P			CIE	SEE	Total
PE-4	22IM8PEXXX	PROGRAM ELECTIVE -4	3	0	0	3	3	50	50	100
PW-4	22IM8PWPR2	PROJECT WORK - 2	0	0	5	5	12	50	50	100
OE-3	22IM8OEXXX	OPEN ELECTIVE - 3	3	0	0	3	3	50	50	100
HS-9	22IM8HSPRM	PROJECT MANAGEMENT	2	0	0	2	2	50	50	100
HS-10	25MA8HSIKS	INDIAN KNOWLEDGE SYSTEM	1	0	0	1	1	50	50	100
INT-3	22IM8SRIN3	INTERNSHIP SEMINAR	0	0	2	2	4	50	50	100
	DETAILS OF 100 AICTE ACTIVITY POINTS EARNED									
	TOTAL		8	0	8	16	24	250	250	500

PROGRAM ELECTIVE-4

22IM8PEIDE	INDUSTRIAL EXPERIMENTATION
22IM8PEMKM	MARKETING MANAGEMENT
22IM8PEAML	ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

OPEN ELECTIVE-3

22IM8OEPDD	PRODUCT DESIGN & DEVELOPMENT
22IM8OESCM	SUPPLY CHAIN & LOGISTICS MANAGEMENT
22IM8OELMS	LEAN MANUFACTURING SYSTEM
22IM8OEOPR	OPERATIONS RESEARCH
22IM8OEHRM	HUMAN RESOURCE MANAGEMENT



BMS COLLEGE OF ENGINEERING BENGALURU

Autonomous institute, affiliated to VTU

Department of Computer Science and Engineering

8th Semester Scheme
for the batch admitted during AY 2021-22

COMPUTER SCIENCE AND ENGINEERING

VIII Semester (Admitted during 2021-2022)

Course Code		Course Title	Type	L:T:P	Credits	Hours	CIE	SEE	Total
22CS8PWMP2		Major Project Phase 2	PW-4	0:0:8	8	16	50	50	100
22CS8OE XXX	DEL	Deep Learning	OE-3	3:0:0	3	3	50	50	100
	CYS	Cyber Security							
	OOJ	Object Oriented Programming with Java							
22CS8HSGNC		Green Computing	HS-8	2:0:0	2	2	50	50	100
22CS8SRIN3		Internship	INT-3	0:0:2	2	4	50	50	100
25MA8HSIKL		Indian Knowledge Systems	HS-9	1:0:0	1	1	50	50	100
22CS8NCMC2		MOOCs Course -2*	NCMC-6	----	---	----	P/NP	---	---
Total				5:0:11	16	26	200	200	400



BMS COLLEGE OF ENGINEERING BENGALURU

Autonomous institute, affiliated to VTU

Department of Electronics and Telecommunication Engineering

8th Semester Scheme

for the batch admitted during AY 2021-22

ELECTRONICS AND TELECOMMUNICATION ENGINEERING

VIII Semester Scheme

Course Code		Course Title	Type	L:T:P	Credits	Hours	CIE	SEE	Total
22ES8HSIFE		Innovation for Entrepreneurship	HS	2:0:0	2	2	50	50	100
25MA8HSIKL		Indian Knowledge System	HS	1:0:0	1	1	50	50	100
22ET8PE4	LV	Low Power VLSI	PE	3:0:0	3	3	50	50	100
	SN	Adhoc and Sensor Networks							
	BS	Block Chain & Cyber Security							
	AI	Machine Learning & Artificial Intelligence							
22ET8OE3	NS	Network Security	OE	3:0:0	3	3	50	50	100
	SC	Principles of Satellite Communication							
	NM	Numerical Methods							
22ET8SRIN3		Seminar based on Internship	INT	0:0:2	2	2	50	50	100
22ET8PWMPJ		Major Project	PW	0:0:5	5	10	50	50	100
22ET8NCMC2		MOOCs/ Virtual Lab with certification	NCMC		P/NP				P/NP
		<i>Details of 100 AICTE Activity Points Earned</i>							P/NP
Total				9:0:7	16	21	300	300	600



BMS COLLEGE OF ENGINEERING BENGALURU

Autonomous institute, affiliated to VTU

**Department of Information
Science and Engineering**

8th Semester Scheme
for the batch admitted during AY 2021-22

Scheme of Instructions Semester – VIII

Course Type	Code	Course Title	Credits			Total Credits	Total Hours
			L	T	P		
PW-3	22IS8PWPP2	Project – Phase 2	0	0	8	8	18
OE-3	22IS8OEISF	Information Security and Forensic	3	0	0	3	3
	22IS8OERPA	Robotic Process Automation Design and Development					
HS-9	22IS8HSGCT	Green Computing	2	0	0	2	2
HS-10	25MA8HSIKL	Indian Knowledge Systems	1	0	0	1	1
INT-3	22IS8SRIN3	Seminar Based on Internship	0	0	2	2	4
NCMC-6	22IS8NCMC2	MOOCs Course – 2 *	-	-	-	PP/NP	-
		Details of 100 AICTE Activity Points Earned	-	-	-	-	-
TOTAL			6	0	10	16	27



BMS COLLEGE OF ENGINEERING BENGALURU

Autonomous institute, affiliated to VTU

Department of Electronics and Instrumentation Engineering

8th Semester Scheme
for the batch admitted during AY 2021-22



B.M.S. College of Engineering, Bengaluru-19
(Autonomous Institute, Affiliated to VTU)
Department of Electronics and Instrumentation Engineering
160 Credit Scheme

Batch Admitted 2021 onwards

Semester-VIII

Sl. No.	Code	Course Title	Course Type	Credits			Total Credits	Total Hours
				L	T	P		
1.	22ES8PE4XX	Professional Elective -4	PE	3	0	0	3	3
2.	22EI8PWPW4	Project -4	PW	0	0	5	5	10
3.	22EI8OE3XX	Open Elective -4	OE	3	0	0	3	3
4.	22ES8HSIFE	Innovation for Entrepreneurship *	HS	2	0	0	2	2
5.	22EI8SRIN3	Seminar on Internship	SR	0	0	2	2	4
6.	25MA8HSIKL	Indian Knowledge Systems	HS	1	0	0	1	1
7.	22EI8NCMC2	MOOCs Course - 2	NCMC	-	-	-	-	-
TOTAL				8	0	8	16	23



BMS COLLEGE OF ENGINEERING BENGALURU

Autonomous institute, affiliated to VTU

**Department of Aerospace
Engineering**

**8th Semester Scheme
for the batch admitted during AY 2021-22**



Scheme of 8th semester UG programs (batch admitted during the AY 2021-22)

VIII Semester Syllabus

Course Type	Code	Course Title				Total Credits	Total Hours	CIE	SEE	TOTAL
			L	T	P					
PE-4	22AS8PE***	Program Elective -4	3	0	0	3	3	50	50	100
PW-4	22AS8PCPW2	Major Project Phase-2	0	0	5	5	12	50	50	100
OE-3	22AS8OE***	Open Elective -3	3	0	0	3	3	50	50	100
HS-9	22AS8HSERG	Ergonomics	2	0	0	2	2	50	50	100
INT-3	22AS8SRIN3	Internship	0	0	2	2	4	50	50	100
HS	25MA8HSIKL	Indian Knowledge Systems	1	0	0	1	2	50	50	100
NCMC-6	22AS8NCMC6	MOOCs Course - 2	0	0	0	0	-	PASS/FAIL		
Details of AICTE Activity Points			For Submission							
TOTAL			8	0	8	16	24	250	250	500

Professional Electives-4

22AS8PE/RPR	22AS8PE/DME	22AS8PE/HLD
Rocket Propulsion	Design of Machine Elements	Helicopter Dynamics

Open Elective-3

22AS8OE/CAE
Cryogenics for Aerospace Engineering



BMS COLLEGE OF ENGINEERING BENGALURU

Autonomous institute, affiliated to VTU

Department of Chemical Engineering

8th Semester Scheme
for the batch admitted during AY 2021-22



DEPARTMENT OF CHEMICAL ENGINEERING
B.M.S. COLLEGE OF ENGINEERING, BENGALURU
Autonomous Institute, Affiliated to VTU

Scheme for batch admitted during the AY 2021-22

SCHEME OF INSTRUCTION FOR EIGHTH SEMESTER

Course Type	Code	Course Title	Credits			Total Credits	Total Hours
			L	T	P		
PE-4	22CH8PELD1	Advanced Separation Techniques	3	0	0	3	3
	22CH8PELD2	Plant Utilities					
	22CH8PELD3	Pilot Plant and Scale-up Studies					
PW-4	22CH8PCFPW	Final Project Work	0	0	7	7	14
OE-3	22CH8OEISO	Industrial Safety and Occupational Health	3	0	0	3	3
INT-3	22CH8PCSR3	Seminar Based on Summer/Winter Internship	0	0	2	2	4
NCMC-6	22CH8NCGRT	Green Technology	-	-	-	P/NP	-
	22CH8NCBHE	Biomaterials in Health Care and Engineering					
HS	25CH8HSIKS	Indian Knowledge System	1	0	0	1	1
Details of 100 AICTE Activity Points Earned							
TOTAL			7	0	9	16	25

Humanities and Social Sciences including Management Courses (HS); Basic Science Courses (BS); Engineering Science Courses (ES); Professional Core Courses (PC); Professional Elective Courses (DE); Open Electives (OE); Project Work (PW); Technical Seminar (SR); Internship in industry or Institution (IN); Non-Credit Mandatory Courses (NC).



BMS COLLEGE OF ENGINEERING BENGALURU

Autonomous institute, affiliated to VTU

Department of Biotechnology

8th Semester Scheme
for the batch admitted during AY 2021-22

B.M.S. COLLEGE OF ENGINEERING
(Affiliated to Visveswaraiah Technological University)

DEPARTMENT OF BIO-TECHNOLOGY

Scheme of 8th semester UG programs (batch admitted during the AY 2021-22)

Course Type	Code	Course Title	Credits			Total Credits	Total Hours
			L	T	P		
PE	22BT8PE PE-4	Professional Elective -4	3	0	0	3	3
OE	22BT80E OE-3	Open Elective-3	3	0	0	3	3
INT	22BT8SR IN3	Internship-Based Seminar	0	0	10	10	20
HS	22BT8HSBEB	Bioethics & Biosafety	2	0	0	2	2
HS	25MA7HSIKL	Indian Knowledge systems	0	0	1	1	2
PW	22BT 8PVPW4	Project work	0	0	5	5	10
NCMC	22BT8NCMC2	MOOCS course	0	0	0	P/NP	
		<i>Details of 100 AICTE Activity Points</i>					
TOTAL:-			8	0	16	24	40

Professional Electives List

Course Type	Code	Course Title	Credits			Total Credits	Total Hours
			L	T	P		
PE-4	22BT8PEDSA	Data Science & Analytics	3	0	0	3	3
PE-4	22BT8PEDRD	Drug discovery	3	0	0	3	3
PE-4	22BT8PEABP	Advanced BT processes and Products	3	0	0	3	3
PE-4	22BT8PEFWM	Food waste management	3	0	0	3	3
PE-4	22BT8PENAT	Nanotechnology	3	0	0	3	3

Open Electives List

Course Type	Code	Course Title	Credits			Total Credits	Total Hours
			L	T	P		
OE-3	22 BT8OEFRS	Forensic Science	3	0	0	3	3
OE-3	22 BT8OEHAN	Health and Nutrition	3	0	0	3	3



BMS COLLEGE OF ENGINEERING BENGALURU

Autonomous institute, affiliated to VTU

Department of Medical Electronics Engineering

**8th Semester Scheme
for the batch admitted during AY 2021-22**

DEPARTMENT OF MEDICAL ELECTRONICS ENGINEERING

Scheme VIII Semesters For the UG Batch 2021-2025

VIII Semester Scheme

Course Code		Course Title	Type	L:T:P	Credits	Hours	CIE	SEE	Total
22MD8PE4 XX	BA	Biomaterials and Artificial Organs	PE-4	3:0:0	3	3	50	50	100
	BC	Brain Computer Interface							
22MD8OE3 XX	AI	Artificial Intelligence for Healthcare	OE-3	3:0:0	3	3	50	50	100
	FR	Fundamentals of Robotics							
	NE	NanoElectronics							
22MD8PWMPJ		Major Project	PW	0:0:5	5	10	50	50	100
22MD8SRIN3		Seminar on Industry Internship	SR	0:0:4	4	8	50	50	100
25MA8HSIKS		Indian Knowledge systems	HS	1:0:0	1	1	50	50	100
22MD8NCMOC		MOOC -2	NCMC	---	---	---	P/NP	---	---
Total				7:0:9	16	25	250	250	500



BMS COLLEGE OF ENGINEERING BENGALURU

Autonomous institute, affiliated to VTU

**Department of Artificial
Intelligence and Machine Learning**

**8th Semester Scheme
for the batch admitted during AY 2021-22**

B.M.S. College of Engineering, Bengaluru – 19
(Autonomous Institute, Affiliated to VTU | Approved by AICTE)

Scheme of Instructions Semester – VIII (With effect from the Academic Year 2021-22: admitted batches and onwards)

Sl.#	Course Type	Course Code	Course Title	Teaching Hours in Credits/Week			Total Credits	Examination			
				Theory Lecture	Tutorial	Practical		Duration in hours	CIE Marks	SEE Marks	Total Marks
				L	T	P					
1	HS-8	24AM8HSNIC	Nature Inspired Computing	1	0	0	1	01	50	50	100
2	HS-9	24AM8HSMEI	Management, Entrepreneurship and IPR	2	0	0	2	02	50	50	100
3	OE-3	24AM8OEBDS	Big Data Analytics	3	0	0	3	03	50	50	100
		24AM8OEPPG	Python Programming								
4	PW-6	24AM8PWCP2	Capstone Project – Phase II	0	0	7	7	14	50	50	100
5	SR-4	24AM8SRINP	Internship	0	0	2	2	04	50	50	100
6	BS-9	25MA8HSIKL	Indian Knowledge Systems	0	0	1	1	01	50	50	100
7	NC-8	24AM8NCPCM	Competitive Exam / MOOC Course	Non-credit mandatory Course							
Total				6	0	10	16	25	300	300	600



B.M.S. COLLEGE OF ENGINEERING, BENGALURU-19

Autonomous Institute, Affiliated to VTU

7TH AND 8TH SEMESTER SCHEME
for the batch admitted during AY 2022 - 2023

Department of Civil Engineering

7th and 8th semester scheme

for the batch admitted during 2022-2023

BMS COLLEGE OF ENGINEERING
DEPARTMENT OF CIVIL ENGINEERING

Scheme for VII sem B.E

(Admission year 2022 & onwards)

wef: AY 2025-26

Course Type	Code	Course Title	Teaching Department	Credits			Total Credits	contact Hours/ week	Marks			SEE duration (Hours)
				L	T	P			CIE	SEE	Total	
PC-13	23CV7PCQSC	Quantity survey and Estimation	Civil	2	1	0	3	4	50	50	100	3
PC-14	23CV7BSMLC	Machine learning for Civil Engineering Applications	Civil	2	0	0	2	2	50	50	100	3
PC-15	23CV7PCPPR	Professional Practice for civil Engineers	Civil	1	0	0	1	1	50	50	50	1.5
PE-3	23CV7PEXXX	Professional Elective -4	Civil	3	0	0	3	3	50	50	100	3
OE-2	23CV7OEXXX	Open Elective -2	Civil	3	0	0	3	3	50	50	100	3
PW	23CV7PWMP2	Major project phase 2	Civil	0	0	7	7	-	100	100	200	-
HSS	25MA7HSIKS	Indian knowledge system	Civil/ Humanities	1	0	0	1	1	50	50	50	
	AICTE activity points		Total credits	12	1	7	20	14 hrs.			700	

BMS COLLEGE OF ENGINEERING
DEPARTMENT OF CIVIL ENGINEERING
Scheme for VII sem B.E

(Admission year 2022 & onwards)

Electives

wef: AY 2025-26

Course Type	Code	Course Title	Teaching Department	Credits			Total Credits	contact Hours/ week	Marks			SEE duration (Hours)
				L	T	P			CIE	SEE	Total	
PE-3	23CV7PEADR	Advanced Design of RC structures	Civil	3	0	0	3	3	50	50	100	3
PE-3	23CV7PEERS	Earth Retaining structures	Civil	3	0	0	3	3	50	50	100	3
PE-3	23CV7PEIWT	Industrial Wastewater Treatment	Civil	3	0	0	3	3	50	50	100	3
PE-3	23CV7PESDY	Structural Dynamics	Civil	3	0	0	3	3	50	50	100	3
PE-3	23CV7PEGDR	Geometric Design of Roads	Civil	3	0	0	3	3	50	50	100	3
PE-3	23CV7PEGWH	Ground Water Hydrology	Civil	3	0	0	3	3	50	50	100	3
PE-3	23CV7PEPSC	Prestressed Concrete Structures	Civil	3	0	0	3	3	50	50	100	3
		OPEN ELECTIVE-2										
OE-2	23CV7OEFEA	Finite Element Analysis	Civil	3	0	0	3	3	50	50	100	3
OE-2	23CV7OERSG	Remote Sensing and GIS	Civil	3	0	0	3	3	50	50	100	3

**BMS COLLEGE OF ENGINEERING
DEPARTMENT OF CIVIL ENGINEERING**

Scheme for VIII sem B.E

(Admission year 2022 & onwards)

wef: AY 2025-26

Course Type	Code	Course Title	Teaching Department	Credits			Total Credits	contact Hours/ week	Marks			SEE duration (Hours)
				L	T	P			CIE	SEE	Total	
OE-3	23CV8OEXXX	Open Elective -3	Civil	3	0	0	3	3	50	50	100	3
PE-4	23CV8PEXXX	Program Elective-4	Civil	3	0	0	3	3	50	50	100	3
INT	23CV8SRINT	Seminar on Internship	Civil	0	0	6	6	1	50	50	100	1
			Total	6	0	6	12	6hrs			300	

AICTE activity Points

**BMS COLLEGE OF ENGINEERING
DEPARTMENT OF CIVIL ENGINEERING**

Scheme for VIII sem B.E

(Admission year 2022 & onwards)

Electives

wef: AY 2025-26

Course Type	Code	Course Title	Teaching Department	Credits			Total Credits	contact Hours/ week	Marks			SEE duration (Hours)
				L	T	P			CIE	SEE	Total	
PE-4	23CV8PEERD	Earthquake Resistant Design of structures	Civil	3	0	0	3	3	50	50	100	3
PE-4	23CV8PEEIA	Environmental Impact assessment	Civil	3	0	0	3	3	50	50	100	3
PE-4	23CV8PEGSR	Geosynthetics and Soil Reinforcement	Civil	3	0	0	3	3	50	50	100	3
PE-4	23CV8PEIWM	Integrated watershed Management	Civil	3	0	0	3	3	50	50	100	3
PE-4	23CV8PEUTP	Urban Transport Planning	Civil	3	0	0	3	3	50	50	100	3
		OPEN ELECTIVE-3										
OE-3	23CV8OEOSH	Occupational safety and Health Administration	Civil	3	0	0	3	3	50	50	100	3
OE-3	23CV8OESLA	Sustainability and Life cycle assessment	Civil	3	0	0	3	3	50	50	100	3

Department of Mechanical Engineering

7th and 8th semester scheme

for the batch admitted during 2022-2023



DEPARTMENT OF MECHANICAL ENGINEERING
Scheme & Syllabus for UG Programme - I & VIII Semesters

SCHEME OF INSTRUCTION FOR FOURTH YEAR B.E.

7th SEMESTER

	Code	Course Title	Credits				Contact Hours	Marks			SEE Hrs
			L	T	P	Tot		CIE	SEE	Tot	
1	23ME7PCMCT	Mechatronics	2	0	1	3	04	50	50	100	3
2	23ME7PLDES	Design Lab	0	0	1	1	02	50	50	100	3
3	23ME7LAML	Advanced Manufacturing Lab	0	0	1	1	02	50	50	100	3
4	23ME7PE***	Professional Elective-3	3	0	0	3	03	50	50	100	3
5	23**7OE***	Open Elective-2	3	0	0	3	03	50	50	100	3
6	23ME7AEPMF	Project Management and Finance	2	0	0	2	02	50	50	100	3
7	23ME7PWMJ2	Project work Phase -2	0	0	7	7	14	50	50	100	3
		TOTAL	10	0	10	20	30			700	

22ME7PE * ELECTIVE – 3**

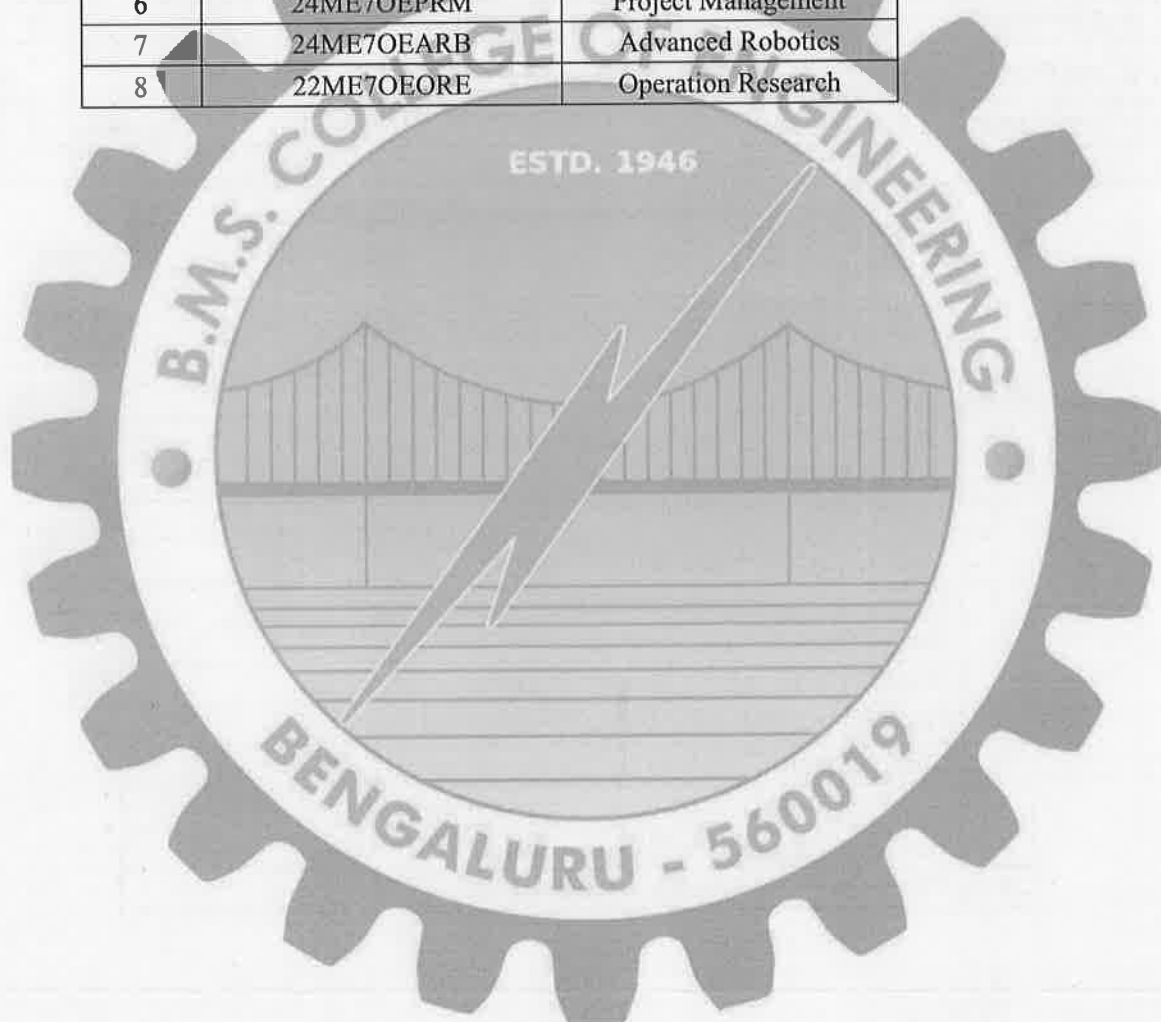
Sl.No	Code	Course Title
1	23ME7PENDT	Non-Destructive Testing
2	23ME7PEPDM	Product Design and Manufacturing
3	23ME7PEIN4	Industry 4.0
4	23ME7PETQM	Total Quality Management
5	23ME7PEEFD	Experimental Fluid Dynamics
6	23ME7PETED	Tool Engineering Design
7	23ME7PEHAP	Hydraulics and Pneumatics
8	23ME7PEFBH	Fundamental of Boiling Heat Transfer
9	23ME7PEESA	Experimental Stress Analysis
10	23ME7PEBMS	Battery Management System
11	23ME7PEPPE	Power Plant Engineering
12	23ME7PEAUE	Automotive Engineering



DEPARTMENT OF MECHANICAL ENGINEERING
Scheme & Syllabus for UG Programme - I & VIII Semesters

22**7IE***	Open Elective-2
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Sl.No	Code	Course Title
1	22ME7OESSE	Sustainable Engineering
2	23ME7OEOPT	Optimization Techniques
3	22ME7OEDSP	Data science using Python
4	22ME7OECOB	Consumer Behaviour
5	24ME7OELAP	Laws of Performance
6	24ME7OEPRM	Project Management
7	24ME7OEARB	Advanced Robotics
8	22ME7OEORE	Operation Research





DEPARTMENT OF MECHANICAL ENGINEERING

Scheme & Syllabus for UG Programme - I & VIII Semesters

SCHEME OF INSTRUCTION FOR FOURTH YEAR B.E.

8th SEMESTER

	Code	Course Title	Credits				Contact Hours	Marks			SEE Hrs
			L	T	P	Tot		CIE	SEE	Tot	
1	23ME8PEXXX	Professional Elective-4	3	0	0	3	03	50	50	100	3
3	23**8OE**	Open Elective-3	3	0	0	3	03	50	50	100	3
5	23ME8SRINT	Internship	0	0	6	6	12	50	50	100	3
	TOTAL		6	0	6	12	18	Total	500		

22ME8PE *** ELECTIVE - 4

Sl.No	Code	Course Title
1.	23ME8PEFRM	Fracture Mechanics
2	23ME8PEAMP	Advanced Material Processing
3	23ME8PEEMA	Energy Management and Auditing
4	23ME8PETRI	Tribology

22**8IE** Open Elective -3

Sl.No	Code	Course Title
1.	23ME8IEEEG	Energy Engineering
2.	23ME8IEPST	Polymer Science and Technology
3.	23ME8IEFIM	Financial Management
4.	23ME8IEORB	Organizational Behaviour
5.	23ME8IEORE	Operation Research
6.	23ME8IEWRB	Wearable Robotics

**Department of Industrial Engineering &
Management**

**7th and 8th semester scheme
for the batch admitted during 2022-2023**

SCHEME OF INSTRUCTIONS FOR VII SEMESTER

Course Type	Code	Course Title	Credits			Total Credits	Total Hours	CIE	SEE	TOTAL
			L	T	P					
IPCC	23IM7PCSRP	Supply chain Management and ERP	3	0	1	4	5	50	50	100
PC	23IM7PCPRM	Project Management	2	0	0	2	2	50	50	100
PE	23IM7PEXXX	Professional Elective -3	3	0	0	3	3	50	50	100
OE	23IM7OEEXX	Open Elective -2	3	0	0	3	3	50	50	100
PW	23IM7PCPW2	Project work-2	0	0	8	8	16	100	100	200
		Details of 80 AICTE Activity Points Earned								
TOTAL			11	0	9	20	27	250	250	500

Professional Elective -3

Course code	Course
23IM7PETOC	Theory of Constraints
23IM7PEFPD	Facilities Planning and Design
23IM7PEDMS	Database Management Systems
23IM7PEWCM	World Class Manufacturing

Open Elective -2

Course code	Course
23IM7OEMAE	Management and Entrepreneurship
23IM7OEOPR	Operations Research
23IM7OEMKM	Marketing Management
23IM7OEHRM	Human Resource Management
23IM7OESCM	Supply chain management

SCHEME OF INSTRUCTIONS FOR VIII SEMESTER

Course Type	Code	Course Title	Credits			Total Credits	Total Hours	CIE	SEE	TOTAL
			L	T	P					
PE	23IM8PEXXX	Professional Elective -4	3	0	0	3	3	50	50	100
OE	23IM8OEXXX	Open Elective -3	3	0	0	3	3	50	50	100
INT	23IM8SRINT	Internship (16-20 weeks)	0	0	06	06	12	100	100	200
		Details of 100 AICTE Activity Points								
TOTAL			6	0	06	12	18	200	200	400

Professional Elective -4 Open Elective -3

Course code	Course
23IM8PETMT	Technology Management
23IM8PEFTM	Future Trends in Manufacturing
23IM8PEIDE	Industrial Design and Ergonomics
23IM8PEBIA	Business Intelligence and Analysis

Course code	Course
23IM8EOBE	Organizational Behavior
23IM8OEMKM	Marketing Management
23IM8OELOM	Lean and Operations Management
23IM8OEHRM	Human Resource Management
23IM8OESCM	Supply chain Management
23IM8OEOPR	Operations Research

**Department of Computer Science and
Engineering**

**7th and 8th semester scheme
for the batch admitted during 2022-2023**



BMS COLLEGE OF ENGINEERING, BANGALORE-19
(Autonomous College under VTU Belagavi)

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Scheme of 7th Semester (Admitted during 2022-2023)

No.	Course Type	Code		Course Title	Credits			Total Credits	Total Hours
					L	T	P		
1	PC	23CS7PCNWP		Network Programming	2	1	0	3	3
2	PC	23CS7PCMNE		Management and Entrepreneurship	3	0	0	3	3
3	PE	23CS7PE XXX	SWA	Software Architecture	3	0	0	3	3
			SCN	Soft Computing					
			NLP	Natural Language Processing					
			WMC	Wireless and Mobile Communication					
4	OE	23CS7OE XXX	MAL	Introduction to Machine Learning	3	0	0	3	3
			INS	Information and Network security					
			ADA	Analysis and design of Algorithms					
5	PW	23CS7PWPP2		Major Project Phase-2	0	0	8	8	16
				Details of 80 AICTE Activity Points Earned					
TOTAL					11	1	8	20	28

Scheme of 8th Semester (Admitted during 2022-2023)

No.	Course Type	Code		Course Title	Credits			Total Credits	Total Hours
					L	T	P		
1	PE	23CS8PE XXX	NES	Network Security	3	0	0	3	3
			NDL	Neural network and Deep Learning					
			VAR	Virtual & Augmented Reality					
			HPC	High Performance Computing					
2	OE	23CS8OE XXX	DEL	Deep Learning	3	0	0	3	3
			CYS	Cyber Security					
			OOJ	Object Oriented Programming with Java					
3	INT	23CS8SRINT		Internship	0	0	6	6	12
				Details of 100 AICTE Activity Points Earned					
TOTAL					6	0	6	12	18

**Department of Electronics and
Telecommunication Engineering**

**7th and 8th semester scheme
for the batch admitted during 2022-2023**

Department of Electronics and Telecommunication Engineering

**Scheme: VII to VIII Semesters
for Batch Admitted 2022-23 onwards**

VII Semester Scheme

Course Code	Course Title	Type	L:T:P	Credits	Hours	CIE	SEE	Total
23ET7PCSGC	Signal Integrity and EMI/EMC	PC	2:0:0	2	2	50	50	100
23ET7PCWCN	Wireless and Cellular Networks	PC	2:1:1	4	6	50	50	100
23ET7PEASC	ASIC Design	PE	3:0:0	3	3	50	50	100
23ET7PEIML	Introduction to Machine Learning							
23ET7PEOFC	Optical Fiber Communication							
23ET7PEIOT	Internet of Things							
23ET7OEMCS	Mobile Communication and Sustainable Networks	OE	3:0:0	3	3	50	50	100
23ET7OEDSC	Data Science							
26MA7HSIKL	Indian Knowledge system	HS	1:0:0	1	1	50	50	100
23ET6PWPJ2	Project work -2	PW	0:0:7	7	14	50	50	100
Total			11:1:8	20	29	300	300	600

VIII Semester Scheme

Course Code	Course Title	Type	L:T:P	Credits	Hours	CIE	SEE	Total
23ET8PELVS	Low Power VLSI	PE	3:0:0	3	3	50	50	100
23ET8PEDSC	Data Science							
23ET8PEMIP	Machine learning based image Processing							
23ET8PEBCS	Block Chain & Cyber Security							
23ET8OEPSC	Principles of Satellite Communication	OE	3:0:0	3	3	50	50	100
23ET8OECNS	Cryptography & Network Security							
23ET8SRINT	Internship	INT	0:0:6	6	12	50	50	100
Details of 100 AICTE Activity Points Earned								
Total			6:0:6	12	18	150	150	300

**Department of Information Science and
Engineering**

**7th and 8th semester scheme
for the batch admitted during 2022-2023**

Semester-VII

Course Type	Code	Course Title	Credits			Total Credits	Total Hours
			L	T	P		
PC-17	23IS7PCGCT	Green Computing	2	0	0	2	2
PC-18	23IS7PCPME	Project Management & Entrepreneurship	2	0	0	2	2
PC-19	23IS7PCICL	Cyber Security and Cyber Law	2	0	0	2	2
HS	25MA7HSIKL	Indian Knowledge Systems	1	0	0	1	1
PE-3	23IS7PEDVS	DevOps	0	1	2	3	4
	23IS7PEIOT	Internet of Things					
	23IS7PEM5G	Mobile Computing and 5G Technologies					
	23IS7PEDVR	Data Visualization and Reporting					
OE-2	23IS7OEICS	Introduction to Cyber Security	3	0	0	3	3
	23IS7OEAIS	Artificial Intelligence					
PW-3	23IS7PWPW2	Project Work-2	0	0	7	7	16
TOTAL			10	1	9	20	29

Semester-VIII

Course Type	Code	Course Title	Credits			Total Credits	Total Hours
			L	T	P		
PE-4	23IS8PERPA	Robotic Process Automation Design and Development	2	0	1	3	4
	23IS8PEDSE	Data Science for Software Engineering					
	23IS8PEDFS	Digital Forensic					
	23IS8PEGAI	Generative AI					
OE-3	23IS8OEPDA	Python for Data Analysis	3	0	0	3	3
	23IS8OESTG	Software Engineering					
INT	23IS8SRINT	Internship	0	0	6	6	12
TOTAL			5	0	7	12	19

**Department of Electronics and
Instrumentation Engineering**

**7th and 8th semester scheme
for the batch admitted during 2022-2023**



B.M.S. College of Engineering, Bengaluru-19
(Autonomous Institute, Affiliated to VTU)
Department of Electronics and Instrumentation Engineering
160 Credit Scheme

Batch Admitted 2022 onwards

Semester-VII

Sl. No.	Course Type	Code	Course Title	Credits			Total Credits	Total Hours
				L	T	P		
1	PC	23EI7PCGAP	5G and its Applications	2	0	1	3	4
2	PC	23EI7PCSSC	Sustainable Solutions for Smart Cities	2	0	0	2	2
3	PC	23EI7PCTRA	Technological Trends in Automation	1	0	0	1	1
4	PE	23EI5PE3XX	Professional Elective -3	3	0	0	3	3
5	OE	23EI7OE2XX	Open Elective -2	3	0	0	3	3
6	PW	23EI7PWPJ2	Project work-2	0	0	8	8	16
			<i>Details of 80 AICTE Activity Points Earned</i>					
	TOTAL			11	0	9	20	29



B.M.S. College of Engineering, Bengaluru-19
(Autonomous Institute, Affiliated to VTU)
Department of Electronics and Instrumentation Engineering
160 Credit Scheme

Batch Admitted 2022 onwards

Semester-VIII

Sl. No.	Course Type	Code	Course Title				Total Credits	Total Hours
				L	T	P		
1	PE	23EI8PE4XX	Professional Elective -4	3	0	0	3	3
2	OE	23EI8OE3XX	Open Elective -3	3	0	0	3	3
3	INT	23EI8SRINT	Internship	0	0	6	6	12
			<i>Details of 100 AICTE Activity Points Earned</i>					
TOTAL				6	0	6	12	18

Internship shall be carried for (16-20 weeks) out at an Industry, NGO, MSME, Innovation center, Incubation center, Start-up, center of Excellence (CoE), Study Centre established in the parent institute and /or at reputed research organizations/institutes.

**Department of Medical Electronics
Engineering**

**7th and 8th semester scheme
for the batch admitted during 2022-2023**

DEPARTMENT OF MEDICAL ELECTRONICS ENGINEERING
Scheme VII & VIII Semesters
For the UG Batch 2022-2026

VII Semester Scheme

Course Code		Course Title	Type	LT:P	Credits	Hours	CIE	SEE	Total
23MD7PCMD		Medical Device Development	PC	3:1:0	4	5	50	50	100
23MD7PCFMR		Fundamentals of Medical Device Regulations and Standards	PC	2:0:0	2	2	50	50	100
23MD7PE3XX	MR	Medical Robotics	PE-3	3:0:0	3	3	50	50	100
	IP	Advanced Image Processing							
23MD7OE2XX	IH	IoT in Healthcare	OE-2	3:0:0	3	3	50	50	100
	FS	Introduction to Forensic Science							
25MA7HSIKS		Indian Knowledge systems	HS	1:0:0	1	1	50	50	100
23MD7PWPJ2		Project -2	PW	0:0:7	7	14	50	50	100
Total				12:1:7	20	28	300	300	600

VIII Semester Scheme:

Course Code		Course Title	Type	L:T:P	Credits	Hours	CIE	SEE	Total
23MD8PE4 XX	BA	Biomaterials and Artificial Organs	PE-4	3:0:0	3	3	50	50	100
	BC	Biometric Systems							
23MD8OE3 XX	IR	Introduction to Robotics	OE-3	3:0:0	3	3	50	50	100
	I4	Industry 4.0							
23MD8SRINT		Internship (16-20 weeks)	PW	0:0:6	6	12	50	50	100
Total				6:0:6	12	18	150	150	300

Department of Chemical Engineering

7th and 8th semester scheme

for the batch admitted during 2022-2023



DEPARTMENT OF CHEMICAL ENGINEERING
B.M.S. COLLEGE OF ENGINEERING, BENGALURU
 Autonomous Institute, Affiliated to VTU

Scheme for batch admitted during the AY 2022-23

SCHEME OF INSTRUCTION FOR SEVENTH SEMESTER

Course Type	Code	Course Title	Credits			Total Credits	Contact Hours/ week
			L	T	P		
PC	23CH7PCPED	Process Equipment Design	2	1	0	3	4
PC	23CH7PCRSM	Risk and Safety Management	0	0	1	1	2
PC	23CH7PCBCE	Biochemical Engineering	2	0	0	2	2
PE	23CH7PELC1	Food Engineering	3	0	0	3	3
	23CH7PELC2	Nanomaterials and Characterization					
	23CH7PELC3	Recycle and Reuse of waste materials for sustainable development					
OE	23CH7OEAET	Advances in Energy Technology	3	0	0	3	3
	23CH7OEIPU	Industrial Plant Utilities					
PW	23CH7PCFPW	Final Project Work	0	0	7	7	14
HS	25MA7HSIKL	Indian knowledge system	1	0	0	1	1
Details of 80 AICTE Activity Points Earned							
TOTAL			11	1	8	20	29

SCHEME OF INSTRUCTION FOR EIGHT SEMESTER

Course Type	Code	Course Title	Credits			Total Credits	Contact Hours/ week
			L	T	P		
PE	23CH8PELD1	Advanced Separation Techniques	3	0	0	3	3
	23CH8PELD2	Pilot Plant and Scale-up Studies					
OE	23CH8OEISO	Industrial Safety & Occupational Health	3	0	0	3	3
INT	23CH8SRINT	Internship (16-20 weeks)	0	0	6	6	12
Details of 100 AICTE Activity Points Earned							
TOTAL			3	0	9	12	18

Department of Bio-Technology

**7th and 8th semester scheme
for the batch admitted during 2022-2023**

Department of Biotechnology

Scheme of 7th and 8th semester UG programs (batch admitted during the AY 2022-23)

VII Semester

Course Type	Code	Course Title	Credits			Total Credits	Total Hours
			L	T	P		
PC-17	23BT7PCEQD	Bioprocess Equipment Design and CAED	2	1	0	3	4
PC	23BT7PCEQL	Bioprocess Equipment Design and CAED Lab	0	0	1	1	2
PE-3	23BT7PEPE-3	Professional Elective -3	3	0	0	3	3
PW-3	23BT7PCPW-3	Project -3	0	0	5	5	10
OE-2	23BT7OEOE-2	Open Elective -2	3	0	0	3	3
HS	25MA7HSIKL	Indian Knowledge systems	0	0	1	1	2
		<i>Details of 80 AICTE Activity Points</i>					
TOTAL:-			8	1	7	16	24

Professional Electives List

Course Type	Code	Course Title	Credits			Total Credits	Total Hours
			L	T	P		
PE-3	23BT7PEGIN	Genome Informatics	3	0	0	3	3
PE-3	23BT7PEBNB	Biologics & Biopharmaceuticals	3	0	0	3	3
PE-3	23BT7PEABT	Animal BT	3	0	0	3	3
PE-3	23BT7PEFPC	Food processing and quality control	3	0	0	3	3
PE-3	23BT7PETEN	Tissue Engineering	3	0	0	3	3

Open Electives List

Course Type	Code	Course Title	Credits			Total Credits	Total Hours
			L	T	P		
OE-2	23BT7OEIPR	IPR in Engineering	3	0	0	3	3
OE-2	23BT7OEEEM	Ecology and Environmental Management	3	0	0	3	3
OE-2	23BT7OESEN	Sustainability Engineering	3	0	0	3	3

VIII Semester

Course Type	Code	Course Title	Credits			Total Credits	Total Hours
			L	T	P		
PE-5	23BT8PEPE-4	Professional Elective -4	3	0	0	3	3
PW-4	23BT80E	Open Elective-3	3	0	0	3	3
INT-3	23BT8SRIN	Internship-Based Seminar	0	0	10	10	20
		<i>Details of 100 AICTE Activity Points</i>					
TOTAL:-			6	0	10	16	26

Professional Electives List

Course Type	Code	Course Title	Credits			Total Credits	Total Hours
			L	T	P		
PE-4	23BT8PEDSA	Data Science & Analytics	3	0	0	3	3
PE-4	23BT8PEDRD	Drug discovery	3	0	0	3	3
PE-4	23BT8PEABP	Advanced BT processes and Products	3	0	0	3	3
PE-4	23BT8PEFWM	Food waste management	3	0	0	3	3
PE-4	23BT8PENAT	Nanotechnology	3	0	0	3	3

Open Electives List

Course Type	Code	Course Title	Credits			Total Credits	Total Hours
			L	T	P		
OE-3	23BT8OEFRS	Forensic Science	3	0	0	3	3
OE-3	23BT8OEHAN	Health and Nutrition	3	0	0	3	3

Department of Aerospace Engineering

**7th and 8th semester scheme
for the batch admitted during 2022-2023**



B.M.S. COLLEGE OF ENGINEERING, BENGALURU-19

Autonomous Institute, Affiliated to VTU, Belagavi

DEPARTMENT OF AEROSPACE ENGINEERING

Scheme of 7th and 8th semester UG programs (batch admitted during the
AY 2022-23)

VII Semester Scheme

Course Type	Code	Course Title	Credits			Total Credits	Total Hours	CIE	SEE	TOTAL
			L	T	P					
BS-9	23AS7BSBFE	Biology for Aerospace Engineers	2	0	0	2	2	50	50	100
PC-19	23AS7PCAMC	Aviation Maintenance Concepts and Technologies	3	0	0	3	3	50	50	100
PC-20	23AS7PCACD	Aircraft Design	1	1	0	2	3	50	50	100
PE-3	23AS7PE***	Professional Elective -3	3	0	0	3	3	50	50	100
PW-3	23AS7PCPW1	Major Project Phase -1	0	0	2	2	4	50	50	100
OE-2	23AS7OE***	Open Elective -2	3	0	0	3	3	50	50	100
HS	25MA8HSIKL	Indian Knowledge Systems	1	0	0	1	2	50	50	100
NCMC-5	23AS7NCMC5	MOOC-1	0	0	0	0	-	PASS/FAIL		
TOTAL			14	1	2	16	19	350	350	700

OPEN ELECTIVE	
23AS7OEANS	23AE7OEATE
Avionics and Navigation Systems	Applied Thermal Engineering

DEPARTMENT ELECTIVE	
23AS7PEMLA	23AS7PERDY
Machine Learning for Aerospace Engineering	Rotor Dynamics



B.M.S. COLLEGE OF ENGINEERING, BENGALURU-19
Autonomous Institute, Affiliated to VTU, Belagavi
DEPARTMENT OF AEROSPACE ENGINEERING

VIII Semester Scheme

Course Type	Code	Course Title				Total Credits	Total Hours	CIE	SEE	TOTAL
			L	T	P					
PE-4	23AS8PE***	Program Elective -4	3	0	0	3	3	50	50	100
PW-4	23AS8PCPW2	Major Project Phase-2	0	0	6	6	12	50	50	100
OE-3	23AS8OE***	Open Elective -3	3	0	0	3	3	50	50	100
HS-9	23AS8HSERG	Ergonomics	2	0	0	2	2	50	50	100
INT-3	23AS8SRIN3	Internship	0	0	2	2	4	50	50	100
NCMC-6	23AS8NCMC6	MOOCs Course - 2	0	0	0	0	-	PASS/FAIL		
Details of AICTE Activity Points			For Submission							
TOTAL			8	0	8	16	24	250	250	500

Professional Electives-4

23AS8PERPR	23AS8PEDME	23AS8PEHLD
Rocket Propulsion	Design of Machine Elements	Helicopter Dynamics

Open Elective-3

23AS8OECAE
Cryogenics for Aerospace Engineering

Department of AIML

**7th and 8th semester scheme
for the batch admitted during 2022-2023**

B.M.S. College of Engineering, Bengaluru - 19 (Autonomous Institute, Affiliated to VTU Approved by AICTE)											
Scheme of Instructions Semester - VII (With effect from the Academic Year 2022-23: Admitted batches and onwards)											
Sl. #	Course Type	Course Code	Course Title	Teaching Hrs. In Credits/Week			Total Credits	Examination			
				Theory Lecture	Tutorial	Practical		Duration in Hrs.	CIE Marks	SEE Marks	Total Marks
				L	T	P					
1	PC-20	24AM7PCTSA	Time Series Analysis	2	0	1	3	4	50	50	100
2	PC-21	24AM7PCLLM	Natural Language Processing for LLM	2	0	0	2	2	50	50	100
3	PE-3	24AM7PEVCV	Video Analytics using OpenCV	3	0	0	3	3	50	50	100
		24AM7PESNA	Social Network Analysis								
		24AM7PECYS	Cyber Physical Systems								
4	OE-2	24AM7OEAIIG	Introduction to AI	3	0	0	3	3	50	50	100
		24AM7OEMLG	Introduction to Machine Learning								
		24AM7OEINN	Introduction to Neural Networks								
5	PW-3	24AM7PWPW2	Project work-2	0	0	4	4	8	50	50	100
6	BS-5	25MA8HSIKL	Indian Knowledge Systems	0	0	1	1	01	50	50	100
			Details of 80 AICTE Activity Points Earned								
Total				10	0	6	16	21	250	250	500

Note: HS: Humanities and Social Sciences/Management Course, BS: Basic Science Course, ES: Engineering Science Course, PC: Professional Core Course, PE: Professional Elective Course, OE: Open Elective Course; PW: Project/Mini Project Work, INT: Seminar on Internship, AE: Ability Enhancement Course / Mandatory Course, NCMC: Non-credit mandatory course

Note: HS: Humanities and Social Sciences/Management Course, BS: Basic Science Course, ES: Engineering Science Course, PC: Professional Core Course, PE: Professional Elective Course, OE: Open Elective Course; PW: Project/Mini Project Work, INT: Seminar on Internship, AE: Ability Enhancement Course / Mandatory Course, NCMC: Non-credit mandatory course

B.M.S. College of Engineering, Bengaluru - 19
(Autonomous Institute, Affiliated to VTU | Approved by AICTE)

Scheme of Instructions Semester - VIII (With effect from the Academic Year 2022-23: admitted batches and onwards)

Sl. #	Course Type	Course Code	Course Title	Teaching Hrs. In Credits/Week			Total Credits	Examination			
				Theory Lecture	Tutorial	Practical		Duration in Hrs.	CIE Marks	SEE Marks	Total Marks
				L	T	P					
1	PE-4	24AM8PEFMS	Financial Mathematics	3	0	0	3	3	50	50	100
		24AM8PEFMT	Financial Management								
		24AM8PEEPM	Entrepreneurship and Management								
2	OE-3	24AM8OEIAI	Introduction to AI	3	0	0	3	3	50	50	100
		24AM8OEIML	Introduction to Machine Learning								
		24AM8OEINN	Introduction to Neural Networks								
3	INT-1	24AM8SRINT	Internship (16-20 weeks)	0	0	10	10	20	50	50	100
			<i>Details of 100 AICTE Activity Points Earned</i>								
Total				6	0	10	16	26	150	150	300
Note: HS: Humanities and Social Sciences/Management Course, BS: Basic Science Course, ES: Engineering Science Course, PC: Professional Core Course, PE: Professional Elective Course, OE: Open Elective Course; PW: Project/Mini Project Work, INT: Seminar on Internship, AE: Ability Enhancement Course / Mandatory Course, NCMC: Non-credit mandatory course											

**Department of Computer Science
Engineering(Data Science)**

**7th and 8th semester scheme
for the batch admitted during 2022-2023**



Semester-VII

	Course Type	Code	Course Title	Credits			Total Credits	Total Hours
				L	T	P		
1	PC	23DC7PCENM	Entrepreneurship & Management	3	0	0	3	3
2	PC	23DC7PCPMF	Project Management & Finance	2	0	0	2	2
3	BS	23DC7BSBIO	Bio-inspired Algorithms	0	0	1	1	2
4	PE	23DS7PECSL	Cyber Security & Cyber law	3	0	0	3	3
		23DS7PESNA	Social Network Analysis					
		23DS7PEBCT	Block chain Technology					
		23DS7PEIRT	Information Retrieval					
5	OE	23DS7OEXXX	Open Elective - 2	3	0	0	3	3
6	PW	23DS7PWPP2	Project work – Phase II	0	0	7	7	14
7	HS	23DS7HSIKS	Indian Knowledge Systems	0	1	0	1	2
			<i>Details of 80 AICTE Activity Points Earned</i>					
	TOTAL						20	29

PC-5, BS-1, PE-3, OE-3, PW-7, HS-1



Semester-VIII

	Course Type	Code	Course Title	Credits			Total Credits	Total Hours
				L	T	P		
1	PE	23DS8PEBDM	Business Data Management	3	0	0	3	3
		23DS8PEITA	IoT Analytics					
		23DS8PEQML	Quantum Machine Learning					
		23DS8PEMLO	Machine Learning Operations MLOps					
2	OE	23DS8OEXXX	Open Elective - 3	3	0	0	3	3
3	INT	23DS8SRINT	Internship (16-20 weeks)	0	0	6	6	12
			<i>Details of 100 AICTE Activity Points Earned</i>					
	TOTAL						12	18

PE-3, OE-3, INT-6

Internship shall be carried out at an Industry, NGO, MSME, Innovation center, Incubation center, Start-up, Center of Excellence (CoE) established in the institute and /or at reputed research organizations/institutes.

**Department of Computer Science
Engineering(IoT and CS)**

**7th and 8th semester scheme
for the batch admitted during 2022-2023**

Semester-VII

	Course Type	Code	Course Title	Credits			Total Credits	Total Hours
				L	T	P		
1	BS	23IC7BSCBS	Cyber BioSecurity	1	0	0	1	1
2	PC	23DC7PCEPM	Entrepreneurship and Project Management	3	0	0	3	3
3	PC	23IC7PCDFC	Digital Forensics and Cyber Law	2	0	0	2	2
4	PE	23IC7PEMWA	Malware Analysis	3	0	0	3	3
		23IC7PEBSP	Blockchain Security and Performances					
		23IC7PEAAI	Adversarial AI Attacks					
5	OE	23IC7OEXXX	Open Elective -2	3	0	0	3	3
6	PW	23IC7PWPP2	Major Project Phase-2	0	0	8	8	16
			<i>Details of 80 AICTE Activity Points Earned</i>					
TOTAL				12	0	8	20	28

PC-6, PE-3,OE-3, PW-8

Semester-VIII

	Course Type	Code	Course Title	Credits			Total Credits	Total Hours
				L	T	P		
1	PE	23IC8PECPS	Cyber Physical Systems	3	0	0	3	3
		23DC8PEDPT	Design Patterns					
		23IC8PEITA	IoT Analytics					
2	OE	23IC8OEXXX	Open Elective -3	3	0	0	3	3
3	INT	23IC8SRINT	Internship (16-20 weeks)	0	0	6	6	12
			<i>Details of 100 AICTE Activity Points Earned</i>					
			TOTAL	6	0	6	12	18

PE-3, OE-3, INT-6

Internship shall be carried out at an Industry, NGO, MSME, Innovation center, Incubation center, Start-up, center of Excellence (CoE), Study Centre established in the parent institute and /or at reputed research organizations/institutes.

**Department of Artificial Intelligence and
Data Science**

**7th and 8th semester scheme
for the batch admitted during 2022-2023**



Semester-VII

	Course Type	Code	Course Title	Credits			Total Credits	Total Hours
				L	T	P		
1	PC	23DC7PCEPM	Entrepreneurship & Project Management	3	0	0	3	3
2	PC	23AI7PCEAI	Explainable AI	2	0	0	2	2
3	BS	23DC7BSBIO	Bio-inspired Algorithms	0	0	1	1	2
4	PE	23AI7PEAIR	AI in Robotics	3	0	0	3	3
		23DS7PESTT	Software Testing					
		23DS7PEBCT	Blockchain Technology					
		23DS7PEDPT	Design Patterns					
5	OE	23AI7OEXXX	Open Elective - 2	3	0	0	3	3
6	PW	23AI7PWPP2	Project work – Phase II	0	0	7	7	14
7	HS	23DS7HSIKS	Indian Knowledge Systems	0	1	0	1	2
			<i>Details of 80 AICTE Activity Points Earned</i>					
	TOTAL						20	29

PC-5, PE-3, OE-3, PW-7, BS-1, HS -1



Semester-VIII

	Course Type	Code	Course Title	Credits			Total Credits	Total Hours
				L	T	P		
1	PE	23DS8PEBDM	Business Data Management	3	0	0	3	3
		23DS8PEITA	IoT Analytics					
		23DS8PEQML	Quantum Machine Learning					
		23DS8PEMLO	Machine Learning Operations MLOps					
2	OE	23AI8OEXXX	Open Elective - 2	3	0	0	3	3
3	INT	23AI8SRINT	Internship (16-20 weeks)	0	0	6	6	12
			<i>Details of 100 AICTE Activity Points Earned</i>					
	TOTAL						12	18

PE-3, OE-3, INT-6

Internship shall be carried out at an Industry, NGO, MSME, Innovation center, Incubation center, Start-up, Center of Excellence (CoE) established in the institute and /or at reputed research organizations/institutes.