SIDDAGANGA INSTITUTE OF TECHNOLOGY, TUMAKURU

(An autonomous institution affiliated to VTU, Belagavi, Approved by AICTE, New Delhi, Accredited by NAAC with 'A++' grade & ISO 9001:2015 Certified)

Proceedings of the 43rd Academic Council Meeting held on 23-09-2023 in the Board Room, SIT Campus from 10:00 AM.

Members present:

1.	Dr. S.V. Dinesh	Chairman
2.	Dr. M.H. Kori	Member, GC Nominee
3.	Dr. U.S. Mallik	Member, IQAC Coordinator & HoD, ME
4.	Dr. M. Siddalinga Prasad	Member, CoE
5.	Dr. Pavan Kumar Emani	Member, HoD, CV
6.	Dr. Rashmi	Member, HoD, EEE
7.	Dr. K.V. Suresh	Member, HoD, ECE
8.	Dr. S. Murthy Shekhar	Member, HoD, CH
9.	Dr. H.M. Kalpana	Member, HoD, EIE
10.	Dr. G.V. Prabhushankar	Member, HoD, IEM
11.	Dr. N.R. Sunitha	Member, HoD, CSE
12.	Dr. R. Aparna	Member, HoD, ISE
13.	Dr. K. Viswanath	Member, HoD, ETE
14.	Dr. B.S. Gowrishankar	Member, HoD, BT
15.	Dr. K.C. Tanuja	Member, HoD, Architecture
16.	Dr. H.M. Suresh Kumar	Member, HoD, Physics
17.	Dr. H.S. Lalithamba	Member, HoD, Chemistry
18.	Dr. S. Suresh Kumar	Member, HoD, Maths
19.	Dr. Panneerselvam	Member, HoD, MBA
20.	Dr. B.G. Premasudha	Member, HoD, MCA
21.	Dr. Jagadeesh P. Ganjigatti	Member, Principal Nominee
22.	Dr. K. Chandrappa	Member, Principal Nominee
23.	Dr. K.G. Manjunath	Member, Principal Nominee
24.	Dr. M.N. Channabasappa	Invitee, Director, SIT
25.	Dr. Shivakumaraiah	CEO, SIT & Joint Secretary, SSES
26.	Mr. K.K. Chowdari	Placement Officer, T&P, SIT
27.	Mr. Darshan	Student Representative, VII Sem, ISE
28.	Mr. Hemanth Gowda R.	Student Representative, VII Sem, ME
29.	Dr. H.S. Jayanna	Member Secretary

Members sought the leave of absence:

1.	Dr. Kori Jagadish	Member, VTU Nominee
2.	Dr. Venugopal K.A.	Member, VTU Nominee
3.	Dr. Mrityunjaya V. Latte	Member, VTU Nominee
4.	Dr. U. Chandrasekhar	Member, GC Nominee
5.	Dr. M. Manjuprasad	Member, GC Nominee

6. Dr. Mamatha P. Raj	Member, GC Nominee
7. Dr. Channappa B. Akki	Member, GC Nominee
8. Dr. V. Siddeswara Prasad	Member, Dean Student Welfare
9. Dr. B.N. Shashikala	Member, Principal Nominee

Dr. H.S. Jayanna, Dean Academic & Member Secretary welcomed Prof. S.V. Dinesh, Principal and requested him to Chair the session. Prof. S.V. Dinesh welcomed the member of the Academic Council Dr. M.H. Kori, Dr. M.N. Channabasappa, Director, Dr. Shivakumaraiah, Joint Secretary, SSES & CEO, SIT and all the Chairpersons of BoS, Faculty and Student representatives.

Dr. S.V. Dinesh, Principal Chaired the meeting and conducted the proceedings.

AGENDA AND DISCUSSION

43.1 Reading and recording the proceedings of the previous meeting of the council

Dr. H.S. Jayanna, Dean Academic placed before the council, the proceedings of the 42nd Academic Council Meeting held on 22-10-2022.

As it was previously circulated, and as there were no comments from the members, the council permitted to take it as read and recorded.

43.2 Presentation of action taken report on suggestions given in the 42nd AC Meeting held on 22-10-2022.

Dr. H.S Jayanna, Dean Academic placed before the council the Action Taken Report for the suggestions given in the 42nd Academic Council Meeting.

Suggestions	Action Taken
Dr. U. Chandrashekar suggested that the Academic Council shall discuss the Pedagogy and Evaluation Criteria to make programme more effective rather than simply looking into scheme and syllabus which has already been thoroughly scrutinized by BoS.	The Chairpersons of the respective BoS shall present pedagogical and evaluation methods adopted in the department for effective teaching and learning during the scheme and syllabus presentation in the AC meeting. However, the following pedagogical initiatives are being used in different departments for effective teaching and learning: 1) Experiential Learning 2) Story Telling 3) Inquiry Learning 4) Outside Classroom Learning 5) Community Problem Solving 6) Collaborative Approach etc.,
Dr. U. Chandrashekar and Dr. M. Manjuprasad suggested to develop a road map for implementation of Internship-II and Internship-III by identifying various industries in and	As per the latest VTU guidelines, if the students are not able to get the internship in the industry/society, they can take skill enhancement online courses of 3 credit and qualify in the courses before the completion of III year of the program. However, the

<table>
<tr><td>around Tumakuru and industries in Peenya Industrial Estate, Bengaluru which can provide Internship and interact with them to find out the numbers they can accommodate and the same shall be notified to students well in advance. Also they have suggested to interact with bigger organizations like BARC, CMTI, HAL, ITI, BFW, etc. to accommodate all the students of the institute. Also, they suggested that Internships in NGOs, Ramakrishna Vivekananda Ashram, APMC, family courts, hospitals can be carried out.</td><td>department of Training and Placement has arranged industry internship-II for 45 days from the GeeksForGeeks (Industry) for Circuit branch students. A total of 300 students have registered for this internship. Other Departments have identified skill enhancement courses which are available on NPTEL platform and deputing students to industries. SIT has MoUs with the industries and arrangements are made for Internships as mentioned in Annexure-I (Pg-5)</td></tr>
<tr><td>Dr. U. Chandrashekar and Dr. M. Manjuprasad suggested to prepare Internship calendar in line with one prepared at IIT, Jodhpur. They also advised not to encourage paid Internship.</td><td><table>
<tr><td>Step -1</td><td>The company contacts the Placements Department or Vice Versa, schedules a date and makes a PPT to the students interested and eligible to participate in the process.</td></tr>
<tr><td>Step-2</td><td>The resumes/list of interested candidates are sent to the company. The company in turn reverts with a shortlist. The company's slot in the placement process is confirmed by the Training and Placement Department in the month of April 2024.</td></tr>
<tr><td>Step-3</td><td>Selection process for recruiting students for internship by various participating companies are organised in slots.</td></tr>
<tr><td>Step-4</td><td>Acceptance of the offer by the students is communicated to the company. The students shall join for work from April/June.</td></tr>
</table>
Students are encouraged for paid internships.
Every effort is made for getting internship for paid.</td></tr>
<tr><td>The Council suggested that all the units shall have same weightage i.e., number of hours allocated for each unit in the syllabus of every course shall be the same.</td><td>This suggestion is taken care in all the departments and in all the courses.</td></tr>
<tr><td>Dr. Venugopal suggested to introduce Geometrical Dimensioning and Tolerancing after all the prerequisite courses are conducted in the earlier semester. Therefore, he suggested to keep it at the 5th semester level for B.E. Mechanical Engineering Programme.</td><td>The course " AECME51: Geometrical Dimensioning and Tolerancing" is introduced in 5th Semester as Professional Elective.</td></tr>
</table>

Dr. Channappa B Akki suggested to change the title of the courses "Data Structures and Applications" as "Data Structures"; and "OOPs with C++" as "OOPs" in the Computer Science and Engineering Stream.	The course title "Data Structures and Applications" is changed as "Data Structures" in the Computer Science and Engineering stream as suggested.
Dr. M. Manjuprasad and Dr. Channappa B. Akki suggested that the 4th semester IEM course "Data Analytics" shall be taught by the faculty of Computer Science and Engineering with emphasis on case studies from Industrial Engineering domain.	The course on Data analytics has been replaced by "Statistics for Engineers" in 4th Semester and Course "Data Analytics" has been moved to 7th Semester as a Professional Elective and this course will be Taught by the CSE faculty, emphasizing case studies from IEM.
Dr. M. Manjuprasad reiterated his earlier stand that the faculty of IT Departments shall interact with Non-IT Departments for Domain Applications as a part of Project Work / Internships.	The CSE stream departments faculty are planning to carryout interdisciplinary students projects from the Academic year 2023-2024 with other department faculty and students. However, a batch of VI semester students including ISE and ECE have carried out a mini project during the Academic Year 2022-23. The title of the project is "Gateway Security for IoT based Smart Automation System". The project is guided by Dr. V.M. Aparanji, ECE and Dr. G. Jagadamba, ISE.
Dr. Channappa B. Akki suggested to include BoS members in the HoDs Presentation while seeking approval for Scheme of Teaching and Examination and Syllabus.	The BoS comprises of experts from Industry and Academia. Before we place the curriculum for approval in Academic Council meeting, BoS meetings are held in the Departments and approval for Scheme of Teaching, Examination and Syllabus was taken.
Dr. Manjuprasad M. expressed concern over introduction of non-technical courses like Kannada, Indian Constitution, Environmental Engineering, Universal Human Values and reduction in total credits from 175 to 160 as it may result in compromising core technical content. Dr. Mamatha P. Raj suggested that if the BoS feels that certain contents have been missed, they could be offered as Value Added Courses.	Introduction of non-technical courses like Kannada, Indian Constitution, Environmental Engineering, and UHV are mandated by AICTE and VTU. Therefore, these courses are introduced in the curriculum. The students have provision to take up MOOCs courses online for enhancing their knowledge in certain domain areas.
Suggestions pertaining to Architecture Programme given by Dr. Mamatha P Raj and Dr. Manjuprasad M.:	
Integrate Basic Design and Visual Arts in I semester	Basics of Architectural Design is introduced in the first semester with an objective of visual grammar, elements of design and methods of visual composition with the intention of space design activity. Exercises on human anthropometry and

	activity are introduced in the syllabus. Visual Arts are taught as a separate course with an objective of pure artistic course with basic drawings and rendering skills.
Study Tour to be scheduled after I and II year of Architecture to create an experience of different Historical Architectural precinct.	Changes are made in the scheme-2022-23 as suggested.
Work shop Practice at I semester- Instead of just model making, Workshops of Photography, Sketching skills, Climatology can be added.	Workshop practice is designed as model making studio at first semester to introduce the different model making materials and scale of buildings. It is the studio subject with hands on session to explore the materials and its limitations. Nomenclature is now changed to Architectural Model making. 3D printing is also introduced.
Theory subjects which all contribute to the design studio can be studied earlier and the theories can be applied in the further semester.	As suggested, introduced Climatology as theory subject in III semester and its application in VI semester design studio. Landscape architecture in IV semester and its application in V semester design studio. Building services are also incorporated in the design studios after learning of theory of building services. Urban Design in VII semester and studio in 9th semester.
Change the nomenclature of Practical oriented courses to Supportive courses.	Changes are made in the scheme as suggested. Supportive subjects like, Building construction and materials, Architectural graphics, computer applications, Working Drawing, Structural systems and behaviours etc.,
Dr. M. Manjuprasad suggested Virtual Reality, Material Testing and Geological Aspects can be introduced in the course of architecture and Department shall connect with AICTE-SIT Idea Lab.	Augmented Reality and Virtual Reality (ARVR) is introduced as an elective course at 7th Semester. Material testing and Geological aspects are introduced in Building construction at various levels.

ANNEXURE - I

SIT has collaborated with CMTI, Bengaluru for Internship cum Project for

1) **M.Tech students** – 2 students from EIE department are pursuing Internship/ project.
2) **UG students**- 30 students include from Computer Science, AI&DS and Information Science are pursuing 9 projects in different domains from 2nd May 2023.

M.Tech. Students of III semester CSE are pursuing internship/projects in the following companies.

1) Microchip Technologie, Bangalore
2) Igeeks Technologies, Bangalore
3) Celestial V solutions, Bangalore
4) Bosch Global Software Solutions, Bangalore

M.Tech students of III semester EIE department are pursuing internship/ projects in the following companies.

1) Continental Automotive Components (India) Pvt. Ltd. Bangalore
2) Mechwin Technologies India Pvt. Ltd. Bangalore
3) PPPASSCHIP Technologies Private Limited, Vijayanagara,, Bangalore, Karnataka, India.
4) Cisco systems, Bengaluru
5) V V Technologies, Bangalore
6) Bosch, Coimbatore.

Eleven (11) UG students from Chemical engineering department are pursuing internship in the following companies:

1) Aero treatments Pvt. Ltd. Tumakuru
2) Jindal South West, Toranagallu, Bellary
3) Prakruthi Herbal Products, Vasantha Narasapura Industrail Area, Tumakuru
4) Jayanth Life Sciences Pvt. Ltd, Raichur

Agenda 43.3: Approval for

i) III to VIII semesters scheme of Teaching, Examination and syllabus for students admitted during 2022-23 BE Programs (160 credits)

ii) V to VIII semesters scheme of Teaching, Examination and syllabus for students admitted during 2021-22 BE Programs (160 credits)

iii) VII to VIII semesters scheme of Teaching, Examination and syllabus for students admitted during 2020-21 BE Programs (175 credits)

iv) III to X semesters scheme of Teaching, Examination and syllabus for students admitted during 2022-23 B.Arch. Program (260 credits)

v) V to X semesters scheme of Teaching, Examination and syllabus for students admitted during 2021-22 B.Arch. Program (260 credits)

vi) VII to X semesters scheme of Teaching, Examination and syllabus for students admitted during 2019-20, 2020-21 B.Arch. Program (260 credits)

vii) Modification in I & II semesters Scheme of Teaching & Examination and Syllabus for students admitting during 2023-24 UG Programs, if any.

viii) I to IV semesters Scheme of Teaching & Examination and Syllabus for students admitting during 2023-24 PG Programs (80 credits; MBA, MCA, M.Tech.)

The Schemes of Teaching, Examination and Syllabus for the following Departments which were circulated earlier were presented by the respective Chairpersons of the BoS before the Academic Council.

		Pg No. in Agenda Book
i	Civil Engineering	23
ii	Mechanical Engineering	269
iii	Electrical and Electronics Engineering	397

iv	Electronics and Communication Engineering	513
v	Chemical Engineering	613
vi	Electronics and Instrumentation Engineering	733
vii	Industrial Engineering and Management	877
viii	Computer Science and Engineering	985
ix	Information Science and Engineering	1329
x	Electronics and Telecommunication Engineering	1463
xi	Biotechnology	1557
xii	Architecture	1733
xiii	M.B.A.	1871
xiv	M.C.A.	2055

The Academic Council approved the Schemes of Teaching, Examination and Syllabus as presented in the Agenda Book with some suggestions **(Refer pages from 21 to 2160 of Agenda Book).**

Agenda 43.4: Approval for Syllabus of new Open Elective courses to be offered from Academic Year 2023-24

Syllabus for the following Open Elective Courses which was circulated earlier was presented by the respective Chairpersons of BoS before the Academic Council,

			Pg No. in Agenda Book
OE61	Electric Vehicle Technology	EE	506
OE62	Renewable Energy Resources	EE	509
OE63	Graph Theory and Combinatorics	Maths	1729
OE64	Disaster Management	CV	138
OE65	Finite Element Method	CV	140
OE66	Robotics and Automation	ME	390
OE67	Digital Manufacturing	ME	393
OE68	Sensors and Actuators	EC	563
OE69	Image Processing and Computer Vision	EC	605
OE70	Augmented Reality and Virtual Reality	EC	608
OE71	Introduction to sustainable engineering	CH	724
OE72	Hydrogen Production Technologies	CH	727
OE73	Risk Management in Manufacturing Industries	CH	729
OE74	Industrial Control & Automation	EI	810
OE75	Vacuum Technology	EI	813
OE76	Industrial Design For Engineers	IEM	978
OE77	World Class Management Practices	IEM	980
OE78	Full Stack Development	CSE	1101
OE79	Industrial Internet of Things	CSE	1104
OE80	Object Oriented JavaScript	ISE	1458
OE81	Satellite System Design	ETE	1551
OE82	Protocol Engineering	ETE	1553
OE83	Bioinformatics	BT	1718
OE84	Mushroom Cultivation and Vermicomposting	BT	1721
OE85	Forensic Science Technology	BT	1723

OE86	Fundamentals of Finance for Engineers	MBA	2041
OE87	Development of Mobile Applications	MCA	2154
OE88	Web Technologies	MCA	2156

Academic Council approved the new Open Elective Courses as presented in the Agenda Book. (Refer pages from 21 to 2160 of Agenda Book)

Agenda 43.5: Approval for the conduction of Industrial Training–2 for the students admitted during AY 2021-22 [Training / NPTEL courses]

Dean Academic presented the issue before the Academic Council. The Council suggested not to recommend IV semester students to register for online courses as Internship-2 though the VTU has given permission to register for online courses. Further, the Council suggested the Institute to encourage students to carry out Internship in Industries to enhance their knowledge in Industry requirements.

The Council also suggested to communicate with industries and establish good contact to create Industry clusters for helping all students to carry out internship. However, the students who are unable to carry out Internship in Industries are permitted to register for online courses.

Agenda 43.6: Approval of Board of Examiners of all the UG and PG programmes for the Academic Year 2023-24

Dean Academic presented the various Boards of Examiners for all the UG and PG programs for the academic year 2023-24. The Council approved the Board of Examiners of all the UG and PG programmes **(Refer pages 2161-2171 of Agenda Book).**

Agenda 43.7: Ratification of approval taken through online circulation for

(i) First year Scheme of Teaching and Examination and Syllabus of 2022-23 UG Programs (160 credits)

(ii) I to IV semester Scheme of Teaching and Examination and Syllabus of 2022-23 to 2023-24 PG Programs (80 credits)

(iii) Syllabus of "Research Methodology and IPR"

The Council ratified the approval sought through email circulation for the above (Circulated through emails on 24-01-2023, 01-02-2023 and 23-05-2023).

Agenda 43.8: Presentation of Result Analysis for Academic Year 2022-23 and its approval

The Controller of Examinations presented result analysis of Academic Year 2022-23 for which approval was taken earlier through email circulation.

General Observations/Suggestions:

- Dr. Kori suggested to encourage students to carryout interdisciplinary projects to meet the global requirements and challenges. Further, he suggested to discuss this issue in the HoDs meeting and fix targets for each department and review the progress of the projects timely.

- Council suggested to empower the faculty members to teach Ability Enhancement Courses (AEC) in the curriculum for the students of all the branches by organizing Faculty Development Programs in the institute.
- Dr. Shivakumaraiah suggested to include Industry 4.0 and Robotics & Automation as core courses in the curriculum for Mechanical engineering students.
- Dr. Shivakumaraiah suggested to include Electric Drawing and Fields and Waves as core courses in the Curriculum for Electrical and Electronics Engineering students.
- Council suggested to redefine the Engineering Science Courses and Ability enhances courses in Chemical Engineering Department and Biotechnology departments.
- Council suggested to create central facilities for all students to work on IoT and Augmented Reality and Virtual Reality (ARVR) domains.

Dr. Kori suggested the following points on the curriculum.

1) Introduce new edition of textbooks in the curriculum to enable students to learn cutting edge technologies and include edition, publisher and year of publication for each text book.
2) Elaborate syllabus on Mechatronics in IEM department to help students to know the details in each unit.
3) Include Interior related courses in AEC for Civil engineering students in consultation with Architecture department and include lab components for Open Elective courses to make students to understand the practical applications of the subjects.
4) Generative AI and Deep Learning related courses are to be included in the CSE stream branches and ISE.
5) Include flavour of communication in the course "Mathematical Foundation for Communication system" in 3rd Semester in ETE department and remove the redundant topics in the syllabus which students studied in earlier semesters.
6) "Microwave and Antenna" course for V semester in ETE department requires revamping based on current needs and trends.
7) Theory and related laboratory courses in Architecture department must be in the same semester for better understanding of the students.

The Principal, Dr. S.V. Dinesh thanked all the members for participating in the meeting, approving the syllabus and providing valuable suggestions & guidance for improving academic standards of the Institute.

23/09/2023

Dr. S.V. DINESH
Principal and
Chairman, Academic Council