

SDM College of Engineering and Technology, Dhavalagiri, Dharwad-580002

Department of Mathematics

STRATEGIC PLAN IMPLEMENTATION REPORT



Audit Report of Strategic Plan for the Year 2022

July 2023 to to January 2024

INTRODUCTION:

The purpose of this document is to record the progress of the Department based on their stated strategic plan for the year 2023--2024 (starting from July 2023 and ending by January 2024).

In charge person indicted against each perspective/ Key areas have participated in the audit process and the records maintained by them are seen thoroughly by the audit team.

AUDIT TEAM:

Chairman:Principal, SDMCET, Dharwad

Members: Dean Academic Program

Dean R & D

IQAC Coordinator– Member Secretary

INSTITUTIONAL VISION AND MISSION:

VISION:

To develop **competent** professionals with **human values**.

MISSION:

- M1.** To have **contextually relevant** Curricula.
- M2.** To promote **effective Teaching Learning** Practices supported by **Modern Educational Tools and Techniques**.
- M3.** To enhance **Research Culture**.
- M4.** To involve the **Industrial Expertise** for connecting Classroom contents to real-life situations.
- M5.** To inculcate **Ethics and soft-skills** leading to overall personality development.

ADDITIONAL FOCUS:

- F1: Curriculum relevance- **M1**
- F2: Academic/ Exam results- **M1, M2, M4**
- F3: Research papers, Sponsored Projects, Root cause analysis for rejected papers and filling gap.-**M3**
- F4: Value additions: Teaching, Soft skills, Use of ICT / Presentation, Discussion Groups
(Communication skills)- **M2 & M5**
- F5: Community oriented services- **M3 & M5**
- F6: Placement.
- F7: Accreditation and Ranking: NBA, NAAC and NIRF -**M1 to M5 & Establishment of strong IQAC to support quality checks and Institutional repository.**
- F8: National Educational Policy- NEP-2020 – **M1 to M5.(Experiential Learning)**

CONTACT DETAILS:

1. DR. Jenifer J.Karnel, **Associate Professor and Head, Department** of Mathematics, SDM College of Engineering and Technology, Dharwad-580002.

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2. DR. Jenifer J.Karnel, **Faculty I/C- Strategic Plan**, Department of Mathematics, SDM College of Engineering and Technology, Dharwad-580002.

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Focus [1]	Perspective/ Key Areas [2]	Year 2022		
		PLANNING [3]	Observations / Remarks by Auditors	
			Outcomes achieved [4]	Reasons for any deviation [5]
F1 / M1 Curriculum Relevance	Re-establishing the relevance of critical thinking in Course outcomes and raising learning levels focusing on Experiential learning of NEP-2020.	<p>Activity 1: Framing syllabus</p> <p>Outcome/Target:</p> <ul style="list-style-type: none"> • Preparation of full syllabus with COs and POs mapping. • Branch specific Syllabus to be framed as per requirement of department. • Final syllabus as per NEP 2020 to meet OBE. <p>Budget : 00.10 Lakhs</p> <p>Deliverables: Documents of BOS conducted.</p> <p>In-charge Faculty: Dr.Jenifer J.Karnel Mobile:8884419523 Email:hodmaths@sdmcet.ac.in</p>	<p>1. BOS meet was conducted on 6th July 2023.</p> <p>2. in a prescribed format is maintained and documented(Pre-BoS).</p> <p>3. The highlights of the BOS were</p> <ul style="list-style-type: none"> ✓ Framing of syllabus focusing on experimental learning of NEP. ✓ The CO were reframed as per the changes made in syllabus. ✓ Details of the syllabus put-up in BoS <p>(1) 5% change in syllabus of I year .</p> <p>(2) The proposed syllabi (with 20% relevant changes in existing syllabi) of Mathematics for B.E for 3rd and 4th semester B.E were resolved to accept.Common to all branches</p> <p>(3) No change in syllabus of Mathematics (Bridge course) for III semester & IV semester.</p> <p>(4)No changes were made in the I semester PG syllabus</p>	(4)

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	<p>Re-establishing the relevance of Program</p>	<p>Activity 1:</p> <ul style="list-style-type: none"> • Reviewing current PAM with respect to meeting POs through theory / labs to identify the gaps. • Establishing the PAM to overcome the gaps. <p>Outcome/Target: Bridging the gaps to meet OBE.</p> <p>Budget : 00.10 Lakhs.</p>	<p>Mathematics laboratory was introduced during the year 2022-23 as per the new scheme of VTU</p> <ul style="list-style-type: none"> • Mathematics lab is conducted on regular bases (Doc 1, Doc 2). • Students write the problem executed (Anaconda 3 2019) in the lab in Journal (Document).
	<p>Articulation Matrix-PAM</p>	<p>Deliverables:</p> <p>1. Documents on minutes of meeting held.</p> <p>In-charge Faculty: Dr. Basavaraj Hoogar Mobile: 8951582908 Email: basavarajsh.12@gmail.com</p>	

	<p>Conducting internal and External Audits</p>	<p>Activity 1:</p> <ul style="list-style-type: none"> • Two internal • IQAC/DUGC team formation(Document) <p>Outcome/Target: Maintain quality of Internal/External question paper.</p> <p>Budget : 00.05 Lakhs.</p> <p>Deliverables: Documents on minutes of meeting at department level and BOE held for SEE.</p> <p>In-charge Faculty: Dr. Varsha D.Joshi Mobile: 8147886040 Email: varshajoshi@gmail.com</p> <p>Activity 2: External academician identified for audit.</p> <p>Outcome/Target: Maintain quality of Internal/External question paper.</p> <p>Budget : 00.05 Lakhs</p> <p>Deliverables:</p> <ol style="list-style-type: none"> 1. Documents of feedback by external auditor 2. In-charge Faculty: Dr. Varsha D.Joshi Mobile: 8147886040 	<p>Activity 1:(2023-24) Scrutinized I.A question paper. Scrutinized I.A question papers and SEE/STC question papers (IQAC) Department Internal audit (Internal Audit) conducted by Prof.Asma Tategar,Department of Chemistry, SDMCET, Dharwad.</p> <p>Activity 2: External audit (External Audit) conducted on (26-08-2023) by externalacademicians Dr.Shreedeви Masuti, Assistant Professor,IIT,Dharwad.</p>
	<p>Others- if any</p>		

Year 2022

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F2 M1,M2,M4 Exam Results	Bridge Course for Lateral entry students	Activity: Bridge course for lateral entry students.(II year) Outcome/Target: Strong in basics to handle engineering mathematics and its application from second year onwards. Budget : 00.01 Lakhs Deliverables: 1. Attendance of students. 2. Question papers of I.A's conducted. 3. Assignments 4. Result of I.A conducted. In-charge Faculty: Prof.Preeti Jinagouda Mobile: 9036242778 Email:preetijinagouda@gmail.com	2023-24 Lateral entry classes for III semester 2023-24 completed.(Documents)		
	Slow learners	Activity: Remedial classes for slow learners. Outcome/Target: Students are identified based on their I.A scores(preferably <8).Help them build confidence in understanding the concept. Budget : 00.01 Lakhs Deliverables: 1. Attendance of students. 2.Topics covered 3.Monitoring the level of understanding. In-charge Faculty: Prof.P.S.Badiger Mobile: 9741143057 Email:prakashbadiger601@gmail.com	2023-24 • Lateral entry classes for IV semester 2023-24 in progress. (Documents).	2023-24 • Remedial classes (2023-24) odd semester were conducted for slow learners(students scoring <8 marks in their internal) and for students who have not understood the concept in regular classes.(Documents).	
	Tutorials for complex courses	Activity: 2 tutorials per unit Outcome/Target: To understand the topic in-depth. Budget : 00.01 Lakhs Deliverables: 1. Attendance of students. 2. Assignment In-charge Faculty: Prof.P.S.Badiger Mobile: 9741143057 Email:prakashbadiger601@gmail.com Activity-: CTA from Mathematics lab component	2022-23 • Remedial classes for the even semester for the year (2023-24) are in progress .	2023-24 Two tutorials/unit were conducted for UG (Documents).	
	Strengthening Experiential Learning component:	Target/ Outcomes: Concepts in Mathematics are understood through mathematics		2023-24 Two tutorials/unit are being conducted for UG during odd sem 2023-24 for I sem and /III semester. Two tutorials/unit are being conducted for UG during odd sem 2023-24 for II sem and /IV semester. (in progress).	

		<p>lab.Students are evaluated on the basis of the concept learnt in mathematics lab Budget : 00.01 Deliverables: 1.Lab journal maintained 2.Attendence of students. 3. Marks obtained in the lab test which is conducted at the end of semester. In-charge Faculty: Dr. Basavaraj Hoogar Mobile: 8951582908 Email: basavarajsh.12@gmail.com</p>	<ul style="list-style-type: none"> Mathematics concepts are understood through programming using Python. Students write these programs in their Lab Journal. Semester end test conducted, marks of which will be considered for CTA .(Document).
	<p>Creation of learning materials</p>	<p>Activity-1: 5-6 Video's on topics covered during semester. Target/ Outcomes: Students can refer to the topics to understand better. Budget: 00.01 Lakhs Deliverables: Links of video created. In-charge Faculty: Prof.Shrikanth Kanguri. Mobile:9686799402 Email:shreekant.kanguri@gmail.com</p> <p>Activity-2: Lab manual Target/ Outcomes: Students can refer to the manual to work /visualize on the concepts of mathematics Budget: 00.01 Lakhs Deliverables: Copy of the manual In-charge Faculty: Prof.Shrikanth Kanguri. Mobile:9686799402 Email:shreekant.kanguri@gmail.com & Dr. Basavaraj Hoogar Mobile: 8951582908</p>	<p>Activity-1: 2022-23 Not done during this semester current academic.().</p> <p>Activity-2: Under preparation.</p>

		Email: basavarajsh.12@gmail.com	
	Awareness of Technology trends	<p>Activity-1: Interaction with industry expert</p> <p>Target/ Outcomes: To understand and apply/relate to their course content.</p> <p>Budget: 00.02 Lakhs</p> <p>Deliverables: Documentation of the program planned.</p> <p>In-charge Faculty: Dr.Jenifer J.Karnel Mobile:8884419523 Email:hodmaths@sdmcet.ac.in</p>	Not yet started
	Online Course/ mode of learning and their connectivity with curriculum	<p>Activity-1: Registering for online courses and getting certified through exam.</p> <p>Target/ Outcomes: Update with new emerging areas, and introduce them to students.</p> <p>Budget: 00.01 Lakhs</p> <p>Deliverables: Certificate of completion of course</p> <p>In-charge Faculty: Dr.Jenifer J.Karnel Mobile:8884419523 Email:hodmaths@sdmcet.ac.in</p>	
	Community Oriented Services	<p>Activity-1: Coaching in mathematics to students of low financial background in neighbouring vicinity schools.</p> <p>Target/ Outcomes: Students get free coaching, and also get introduced to higher learning.</p> <p>Budget: 00.05 Lakhs</p> <p>Deliverables: 1. Documents maintained regarding tie-up with any school/NGO.</p>	Identified two schools. Yet to begin

		2. Records of students attending the classes. In-charge Faculty: Prof.Preeti Jinagouda Mobile: 9036242778 Email:preetijinagouda@gmail.com	
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F3 M3 Research	Quality assessment of all research proposals	Activity-1: Review of research articles. Target/ Outcomes: 1. With experience high quality papers are reviewed. 2. Be updated with any emerging fields. Budget :00.10 Lakhs Deliverables: 1. Document of communication. 2.List of papers. In-charge Faculty: Dr.D.P.Basti Email:dpbasti2016gmail.com Mobile: 9900364739			
	IPR: Copyrights and Patents	Activity-1: Research work patent Outcome/Target: High quality research work getting patented. Budget :00.25 Lakhs Deliverables:		Not yet initiated the activity but attended the webinar on this topic.	

		<p>1.Documents on communication with agency.</p> <p>2. Patented document.</p> <p>In-charge Faculty: Dr.Shailaja S.Shirkol Mobile: 9482560244 Email:shailajashirkol@gmail.com</p>	
	<p>Paper Publications</p>	<p>Activity-1: Publication of 4-5 research papers.</p> <p>Outcome/Target:</p> <p>Improvement in research Publications</p> <p>Increase in number of publications</p> <p>Budget :00.25 Lakhs</p> <p>Deliverables: List of research papers with corresponding Links .</p> <p>In-charge Faculty: Dr.D.P.Basti Email:dpbasti2016gmail.com Mobile: 9900364739</p>	<p>4 faculty have published 3 research papers.(Documents)</p>

	<p>Funded Projects</p>	<p>Activity-1: Formation of core team to assess quality and review.</p> <p>Identification of emerging and interdisciplinary areas of research</p> <p>Outcome/Target:</p> <p>Improving success rate of research proposal acceptance.Secure external funding.</p> <p>Budget :00.25 Lakhs</p> <p>Deliverables:</p> <p>1.Documents on communication with funding agency.</p> <p>2.Report on various stages of the ongoing project</p> <p>In-charge Faculty: Dr.Shailaja S.Shirkol Mobile: 9482560244 Email:shailajashirkol@gmail.com</p>	<ul style="list-style-type: none"> Received a seed money of Rs.1,10000/- towards the project Titled “Experimental and computational studies of organic/polymeric derivatives in corrosion inhibition of Mild steel”(On-going) Principal Investigator :Dr.A.A.Kittur CO- Principal Investigator(i)Dr.Shailaja (Dept of Mathematics) (ii)Dr.Sahana. Received a seed money of Rs. 50000/- towards the project Titled “Smart health care system for patient monitoring” (On-going) Principal Investigator : Dr.S.R.Biradar CO- Principal Investigator’s:: (i)Prof.V.Parvati (ii) Dr.Basavaraj Hoogar(Department of Mathematics) (iii) Prof. Sharada H.N. (Documents)
	<p>Knowledge Sharing.</p>	<p>Activity-1: To attend international conference.</p> <p>Target/ Outcomes: To uplift the quality of research work through interaction.</p> <p>Budget :00.25 Lakhs</p> <p>Deliverables:</p> <p>1. List of papers.</p> <p>2. Report on conference attended.</p> <p>In-charge Faculty: Dr.Shailaja S.Shirkol Mobile: 9482560244 Email:shailajashirkol@gmail.com</p>	<p>Faculties could not attend.</p>

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F4 M2 & M5 Value additions	Learning for Placement				
	Soft Skills				
	Discussion Group				
	English Communication Skills				
	Use of ICT Information Communication Technology	<p>Activity: Use of online platforms like Zoom, Google meet for online classes Using the google classroom service for the collection of assignments from students and to distribute the class notes wherever applicable. Use of audio video tools for the conduction of online classes as applicable. Effective use of Management Information System for the attendance and academic progress records of the students Outcome/Target: Enhancement of domain knowledge. Additional study material for the students.</p> <p>In-charge Faculty: Prof.Shrikanth Kanguri. Mobile:9686799402 Email:shreekant.kanguri@gmail.com</p>	<p>Study material provided through google classroom. (Documents)</p> <p>Videos and ppts related to designed curriculum are shared with students using ICT so as to understand the subject matter clearly.</p>		
Others- if any					

Focus	Perspective/ Key Areas	PLANNING	Year 2022		
			Observations / Remarks by Auditors		
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F5 M3 & M5	Awareness Program				
	Learning Programs through workshops	< Activity/ Outcomes/Targets and Faculty I/C to be mentioned here >			
	Technology Transfer Programs	< Activity/ Outcomes/Targets and Faculty I/C to be mentioned here >			
	Others- if any				

Year 2022					
Focus	Perspective/ Key Areas	PLANNING	Observations / Remarks by Auditors		
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F6 Placement	No. of Offers		Not Applicable		
	No. of students getting Placed				
	pay packages being offered				
	MoUs				
	Internship				
	Others- if any				

Year 2022					
Focus	Perspective	Perspective/ Key Areas	Observations / Remarks by Auditors		
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F7 Accreditation Ranking and	NBA Faculty I/C: NBA Coordinator: Dr.Jenifer J.Karnel		
	NAAC Faculty I/C: NAAC Coordinator: Dr.Jenifer J.Karnel	Activity-1: NAAC preparedness Outcome/Target: Data collection and Documentation for submission	Documents submitted to administrative office as and when asked for.
	NIRF ranking. Faculty I/C: Dr.Jenifer J.Karnel PG Coordinator:	Activity : Aiming for ranking within 200 Strengthening institute by publication in high impact journals, by getting more fund from external agency	<ul style="list-style-type: none"> ▪ Published 04 research papers in international journals . ▪ Attended FDP, Seminars, Workshops, conferences and presented papers. Two inter-department project are ongoing.
	Others- if any		

Focus	Perspective	Perspective/ Key Areas	Year 2022		
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Others					

Remarks-by the auditing team.

The progress report mentioned above is presented by the concerned department team, verified for its correctness by the auditing team and approved by the concerned authorities mentioned below.

II Quarter	Name and Signature with Date of the concerned authority							
	DUGC Member Secretary	IQAC Coordinator	Faculty I/C of Strategic Plan	Head of the Department	Member-3 Audit Team	Member-2 Audit Team	Member-1 Audit Team	PRINCIPAL