## SDM College of Engineering and Technology, Dhavalagiri, Dharwad-580002 STRATEGIC PLAN

# **Department of Mechanical Engineering**

[5 Year Plan: 2022-2026]

## **OBJECTIVES:**

The purpose of this document is to establish the **roadmap for next 5 years** to plan how we wish to see our Institution in the future. This plan is **based on the vision and mission** established and also the additional focus suggested by the management keeping focus on National Educational Policy-NEP-2020. Mission statements are the **basic perspectives** driving the newer strategies established in this report. This report will serve as baseline for **budgeting** and also to establish the Institutional level **ANNUAL performance appraisal**.

## 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: Academic results- M1, M2, M4

F2: Curriculum relevance- M1

F3: Value additions: Teaching, Soft skills, Use of ICT / Presentation, Discussion Groups (Communication skills)- M2 & M5

F4: Community oriented services- M3 & M5

F5: Additional Academic perspectives: Research papers, Sponsored Projects, Root cause analysis for rejected papers and filling gap.- M3

F6: Accreditation and Ranking: NBA, NAAC and NIRF - M1 to M5 & Establishment of strong IQAC to support quality checks and Institutional repository.

F7: National Educational Policy- NEP-2020 – M1 to M5.( Experiential Learning)

#### PLANNING INCREMENTS:

1<sup>st</sup> year to 5<sup>th</sup> year, i.e. **2022** to **2026**; year commencing from 1<sup>st</sup> of January and ending by 31<sup>st</sup> December.

## **CONTACT DETAILS:**

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Focus	Perspective			STRATEGIC PLAN		
rocus	rerspective	2022	2023	2024	2025	2026
Curriculum Relevance	Re-establishing the relevance of critical thinking in Course outcomes and raising levels focusing on Experiential learning of NEP	Activities:  Conduct dept. meeting to discuss on the revision of course outcomes to incorporate higher order thinking skills as required by NEP.  Revise mapping levels of COs with POs.  Convene DUGC and BOS meetings for approval.	Activities:  Conduct dept. meeting to discuss on the revision of course outcomes to incorporate higher order thinking skills as required by NEP. Revise mapping of COs with POs. Convene DUGC and BOS meetings for approval.	Activities:  Conduct dept. meeting to discuss on the revision of course outcomes to incorporate higher order thinking skills as required by NEP. Revise mapping of COs with POs. Convene DUGC and BOS meetings for approval.	Activities:  Conduct dept. meeting to discuss on the revision of course outcomes to incorporate higher order thinking skills as required by NEP.  Revise mapping of COs with POs.  Convene DUGC and BOS meetings for approval.	Activities:  Conduct dept. meeting to discuss on the revision of course outcomes to incorporate higher order thinking skills as required by NEP. Revise mapping of COs with POs. Convene DUGC and BOS meetings for approval.
	Re-establishing the relevance of Program Articulation Matrix	Activities:  Revision of mapping of COs with POs  Analysis of PAM for better addressing of all POs.  Action plan based on attainment of POs will implemented.  Convene DUGC	mapping of COs with POs  • Analysis of PAM for better addressing of all POs.  • Action plan based on attainment of POs will implemented.	for better addressing of all POs.	PAM for better addressing of all POs.  • Action plan based on attainment of POs will implemented.	Activities:  Revision of mapping of COs with POs  Analysis of PAM for better addressing of all POs.  Action plan based on attainment of POs will implemented.  Convene

	and BO	S and	BOS	and	BOS	DUGC and	DUGC and
	meetings fo	r meetings	for	meetings	for	BOS meetings	BOS meetings
	approval.	approval.		approval.		for approval.	for approval.
Conducting internal and External Audits	Internal audit: 02 External audit:01	Internal audit: ( External audit:(		Internal audit: External audit		Internal audit: 02 External audit:01	Internal audit: 02 External audit:01

Focus	Perspective	2022	2023	2024	2025	2026
	Bridge Courses	Extra classes for lateral entry students will be taken to make up the syllabus	Extra classes for lateral entry students will be taken to make up the syllabus	Extra classes for lateral entry students will be taken to make up the syllabus	Extra classes for lateral entry students will be taken to make up the syllabus	Extra classes for lateral entry students will be taken to make up the syllabus
	Tutorials for complex courses	Tutorials for analytical subjects will be handled and will be shown in the timetable	Tutorials for additional analytical subjects will be identified. Tutorials will be conducted and will be shown in the timetable	Tutorials for additional analytical subjects will be identified. Tutorials will be conducted and will be shown in the timetable	Tutorials for additional analytical subjects will be identified. Tutorials will be conducted and will be shown in the timetable	Tutorials for additional analytical subjects will be identified. Tutorials will be conducted and will be shown in the timetable
<b>Exam Results</b>	Strengthening Experiential Learning component	Performance enhancing measures (PEM) incorporating experiential learning for all courses handled during the semester will implemented. Minimum one PEM for each subject will be implemented.	Performance enhancing measures (PEM) incorporating experiential learning for all courses handled during the semester will implemented. Minimum one PEM for each subject will be implemented.	Performance enhancing measures (PEM) incorporating experiential learning for all courses handled during the semester will implemented. Minimum one PEM for each subject will be implemented.	Performance enhancing measures (PEM) incorporating experiential learning for all courses handled during the semester will implemented. Minimum one PEM for each subject will be implemented.	Performance enhancing measures (PEM) incorporating experiential learning for all courses handled during the semester will implemented. Minimum one PEM for each subject will be implemented.
	Industry Connectivity for	• Industry relevant elective subjects	• Industry relevant elective subjects will	_	• Industry relevant	• Industry relevant
	Class room	will be	be incorporated in	will be	will be	will be

	incorporated in the	the curriculum.	incorporated in	incorporated in the	incorporated in
	curriculum.	Inviting industrial	the curriculum.	curriculum.	the curriculum.
	Inviting industrial	experts for guest •	Inviting industrial	<ul> <li>Inviting industrial</li> </ul>	Inviting industrial
	experts for guest	lectures for industrial	experts for guest	experts for guest	experts for guest
	lectures for	connectivity	lectures for	lectures for	lectures for
	industrial •	Industry based	industrial	industrial	industrial
	connectivity	projects will be	connectivity	connectivity	connectivity
	Industry based	offered to the	Industry based	<ul><li>Industry based</li></ul>	Industry based
	projects will be	students	projects will be	projects will be	projects will be
	offered to the	Organizing	offered to the	offered to the	offered to the
	students	industrial tours two	students	students	students
•	Organizing	per academic year.	Organizing	<ul> <li>Organizing</li> </ul>	Organizing
	industrial tours two	-	industrial tours	industrial tours	industrial tours
	per academic year.		two per academic	two per academic	two per academic
	•		year.	year.	year.

Focus	Perspective	2022	2023	2024	2025	2026
	IPR: Copyrights and Patents	Faculty will be encouraged to take up IPR and Patent activities at least one per year	Faculty will be encouraged to take up IPR and Patent activities at least one per year	Faculty will be encouraged to take up IPR and Patent activities at least one per year	encouraged to take up IPR and	Faculty will be encouraged to take up IPR and Patent activities at least one per year
Research	Paper Publications	Paper publication in reputed peer reviewed journals and conferences: 10 papers	Paper publication in reputed peer reviewed journals and conferences : 10 papers	Paper publication in reputed peer reviewed journals and conferences: 10 papers	in reputed peer reviewed journals	Paper publication in reputed peer reviewed journals and conferences: 10 papers
	Funded Projects	Total number of funded projects to be applied per year: 03	Total number of funded projects to be applied per	Total number of funded projects to be applied per year:	funded projects to	Total number of funded projects to be

		year: 03	03	year: 04	applied per
					year: 04
		A dept. committee	A dept. committee	A dept.	A dept.
		including an	including an	committee	committee
Analysis on	A dept. committee	external expert	external expert will	including an	including an
project	including an external expert	will be formed for	be formed for	external expert	external expert
proposals for its	will be formed for	evaluation of	evaluation of	will be formed for	will be formed
quality and	evaluation of project	project quality and	project quality and	evaluation of	for evaluation
relevance	quality and its relevance.	its relevance.	its relevance.	project quality	of project
				and its relevance.	quality and its
					relevance.

Focus	Perspective	2022	2023	2024	2025	2026
	Learning for Placement	Value added training programs facilitated by CIII: .Two programs	Value added training programs facilitated by CIII: .Two programs	Value added training programs facilitated by CIII: .Two programs	Value added training programs facilitated by CIII: .Two programs	Value added training programs facilitated by CIII: .Two programs
Value additions	Soft Skills	Soft skill training program will be conducted by CIII centrally.: one programme	Soft skill training program will be conducted by CIII centrally. one programme	Soft skill training program will be conducted by CIII centrally. one programme	Soft skill training program will be conducted by CIII centrally. one programme	Soft skill training program will be conducted by CIII centrally. one programme
	Discussion Group	One group discussion activity will be conducted by the department placement coordinators in consultation with TAPS. one programme	One group discussion activity will be conducted by the department placement coordinators in consultation with TAPS. one	discussion activity will be conducted by the department placement	One group discussion activity will be conducted by the department placement coordinators in	One group discussion activity will be conducted by the department placement coordinators in

		programme	TAPS. one programme	consultation with TAPS. one programme	consultation with TAPS. one programme
English Communication Skills	English communication skill training program will be taken up centrally. one programme	English communication skill training program will be taken up centrally. one programme	English communication skill training program will be taken up centrally. one programme	English communication skill training program will be taken up centrally. one programme	English communication skill training program will be taken up centrally. one programme
Use of ICT	Faculty and students are encouraged to use ICT tools for better teaching learning process. One econference per year and Two online quizzes	Faculty and students are encouraged to use ICT tools for better teaching learning process. One econference per year and Two online quizzes	Faculty and students are encouraged to use ICT tools for better teaching learning process. One econference per year and Two online quizzes	Faculty and students are encouraged to use ICT tools for better teaching learning process. One e-conference per year and Two online quizzes	Faculty and students are encouraged to use ICT tools for better teaching learning process. One econference per year and Two online quizzes

Focus	Perspective	2022	2023	2024	2025	2026
Accreditation and Ranking	NBA	Extension for continuation of accreditation will be applied.	continuation of accreditation will be applied.	continuation of accreditation will be applied.	will be filed.	of accreditation will be filed.
	NAAC	Departmental	Departmental	Departmental	Departmental	Departmental

	preparations for NAAC accreditation will be done as per institutional guidelines.	will be done as per	preparations for NAAC accreditation will be done as per institutional guidelines.	preparations for NAAC accreditation will be done as per institutional guidelines.	preparations for NAAC accreditation will be done as per institutional guidelines.
NIRF ranking	Departmental preparations for better NIRF ranking will be done as per institutional guidelines	Departmental preparations for better NIRF ranking will be done as per institutional guidelines	Departmental preparations for better NIRF ranking will be done as per institutional guidelines	Departmental preparations for better NIRF ranking will be done as per institutional guidelines	Departmental preparations for better NIRF ranking will be done as per institutional guidelines

Focus	Perspective	2022	2023	2024	2025	2026
	Awareness Program	Two activities per year is planned.	Two activities per year is planned.			
Community Oriented	Learning Programs	Two activities per year is planned.	Two activities per year is planned.			
Services	Technology Transfer Programs	One technology transfer program is planned per year.	One technology transfer program is planned per year.	One technology transfer program is planned per year.	One technology transfer program is planned per year.	One technology transfer program is planned per year.