



Best Practices

7.1.1 Details of any two best practices which have contributed to better academic and administrative functioning of the SRCOE.

Best Practice -1

1.0 Title: Continual Improvement of academic processes and programs

2.0 Goal

The aim of the practice followed by the SRCOE is to continually improve the effectiveness of its laid down systems and processes by regularly assessing and evaluating the extent to which the SRCOE quality policy and objectives are being attained. For this purpose, a quality policy has been established, displayed at prominent locations in the SRCOE and everyone has been made to understand the intent of the quality policy and the commitment contained in it. Quality objectives along with their means and measures have been established for various functions and levels. The management periodically reviews the policy and objectives for continuing suitability, adequacy, and effectiveness by the provision of adequate resources.

3.0 The Context

The SRCOE has committed itself to the development and implementation of a continuous improvement process for improving the effectiveness of the academic processes and programs. For measuring the effectiveness of the processes, key academic objectives have been identified. Targets are set against each of these objectives that define the expected level of attainment for each objective. The data is collected periodically from each stakeholder at the end of each semester and reviewed in a meeting of the top officials of the SRCOE. Summary of the results of the evaluation indicating the level achieved is prepared and used as an input for setting targets for the next year. The results of these processes are utilized to effect continuous improvement of the academic processes and the programs offered. For doing this, assessment methods are used to gather the data upon which the evaluation of each objective is based.

4.0 The Practice

Each academic program completes a SWOT analysis at the beginning of each academic year in its faculty meeting through brainstorming. The results of the SWOT analysis are then used to identify



key and critical areas of concern where action plans must be initiated to improve performance. These critical areas are then transferred to the committee which clearly describes the risk of not undertaking this improvement in the short and the long term followed by an action plan, responsibility, and the completion date till the time the risk level.

Also, targets are set for critical academic and research parameters critical for the growth of the SRCOE and are reviewed periodically. The targets are set for the following key academic performance indicators:

1. **Academic Credit Score:** The credit score is calculated for each program and is indicative of the course weight and the number of students who undertake that course. The score for a program provides an insight into the faculty requirements for that program and the teaching load of the department. This score is calculated separately for both UG and PG programs.
2. Faculty strength and student-teacher ratio
3. Number of Publications in UGC approved journals
4. Number of sponsored research and infrastructure projects
5. Number of full time Teaching Assistant/Research Scholars
6. Number of new UG or PG programs proposed
7. Student Placement
8. Collaborations, conferences, and short term courses

The data is collected for each program and reviewed. The results of this analysis are used to plan targets for the subsequent years.

5.0 Evidence of Success

Periodically the research & publication work is monitored. The risks have been categorized under broad headings such as faculty, research output, infrastructure, research scholars etc. The projects are periodically reviewed for evaluating the success of each project in reducing the risk.

The target set for each department has helped to focus on its performance every year. The best performing department is announced on an annual day every year. A sheet for the research publication, Sponsored projects, and funding data for the previous year(s) is given below.

Sr. No	Title of paper	Name of the author/s	Name of journal	Year of publication	ISSN number
1	Study of Gasoline Fuel blended with Composite Additive by Chemical Analysis	Prof.Dr.A.D.Desai	International Journal of Latest Trends in Engineering and Technology (IJLTET)	2016	ISSN: 2278-621X



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2	Recent Development in Humanoid Robot	Prof. A. B. Bhane ; Prof. Khedekar V.V.	International Journal of Emerging and Advance Technology	2018	ISSN 2250-2459, ISO 9001:2008
3	Comparative study on effect of biodiesel on CI engine performance and emission characteristics	Prof.Dr.A.D.Desai	Elsevier: Materials Today: Proceedings	2018	2249 – 8958
4	Parametric optimization of Engine Performance and Emission for various N-Butanol blends at different operating parameter condition	Prof.Dr.A.D.Desai	Alexandria Engineering Journal (Elsevier: Q2 Journal)	2018	1013-1025
5	Optimization of application of 2-ethyl-hexyl-nitrate on partial substitution of ethanol in CI engine for fuel economy and emission control using MADM method	Prof.Dr.A.D.Desai	Springer Nature Applied Science	2019	s42452-019-0163-7
6	NUMERICAL SIMULATION OF FINS MOUNTED ON INNER TUBE OF SINGLE TUBE FIRE WATER HEATER	Prof. Pingle R.B.	International Journal of advance research ideas in education	2019	IJARIE-ISSN(O)-2395-4396
7	Finite Element Analysis of Coir Fiber Based Natural Composites	Prof. Dr. A.D. Desai; Prof. Bhane A.B.	International Journal of Emerging Technology and	2019	ISSN 2250-2459, ISO 9001:2008



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			Advanced Engineering		
8	Design and Analysis of Hybrid Composite Chain Link	Tushar C. Mali; Prof.Dr.A.D.Desai ; Prof. Sarasambi P. G.	International Journal of Emerging Technology and Advanced Engineering	2019	ISSN 2250-2459
9	Impact Of Shear Wall To Reduce The Torsional Effect For Unsymmetrical Rc Frame With And Without Infill Wall	Prof. R.B. Ghodke; Prof.S.D.Kangiri	International Research Journal Of Engineering And Technology (Irjet)	2019	2395-0056e Pishn2395-0072
10	Performance Analysis of Latent Heat Thermal Energy Storage using Phase Changing Material in a Circular Orientation.	Prof.Dr.A.D.Desai	International Journal of Engineering and Advanced Technology (IJEAT)	2019	2249 – 8958
11	Impact Of Shear Wall To Reduce The Torsional Effect For Unsymmetrical Rc Frame With And Without Infill Wall	Prof. R.S. Dahatre; Prof. V.N. Bande	International Research Journal Of Engineering And Technology (Irjet)	2019	2395-0056e Pishn2395-0072
12	Performance of Phase Changing Material In An Artificially Created Cold Region To Promote Latent Heat Thermal Energy Storage	Prof.Dr.A.D.Desai	Journal of Thermal Engineering,	2020	DOI: 10.18186/thermal.10259 35
13	Design And Analysis Of An Innovative Umbrella For Car	Prof. A. B. Bhane; Ms.A.A.Konde; Prof.Dr.A.D.Desai	International Research Journal of Modernizatio	2020	ISSN:2582-5208



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			n in Engineering Technology and Science		
14	Automotive Drive Shaft Use Al Alloy Material Optimization Using Fea And Validation	Prof. A. B. Bhane; Mr.Gokul Bhujbal; Prof.Dr.A.D.Desai	International Research Journal of Modernizatio n in Engineering Technology and Science	Jul-20	ISSN:2582-5208
15	Investigation And Optimization Of Mechanical Strength For Cabin Mounting Bracket In Commercial Vehicle Using ANSYS	Prof. A. B. Bhane; Mr.Santosh Yadav, Prof.Dr.A.D.Desai	International journal of Advances in Engineering and Management (IJAEM)	Aug-20	ISSN-2395-5252
16	Design Of Solenoid Operating Valve Applying Design For Six Sigma Methodology Sigma Methodology	Prof. A. B. Bhane; Mr.Avinash Bothe; Prof.Dr.A.D.Desai	International Journal of Creative Research Thoughts	Aug-20	ISSN:2320-2882
17	DESIGN AND ANALYSIS OF AN INNOVATIVE UMBRELLA FOR CAR	Miss. A. A. Konde; Prof. A. B. Bhane; Prof. Dr. A. D. Desai	International Research Journal of Modernizatio n in Engineering Technology and Science	July-2020	e-ISSN: 2582-5208
18	Vibration Mode Suspension in Canopies Using Elastic Damping Technique	Mr.Vivek Revanshete; Prof.Dr.A.D.Desai .; Prof. B.P. Londhe	International Research Journal of Engineering and Technology (IRJET)	2020	e-ISSN: 2395-0056 p- ISSN: 2395-0072



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19	DESIGN AND ANALYSIS OF SIDE DOOR INTRUSION BEAM FOR AUTOMOTIVE SAFETY	Sumitra Dhaigude, A. B. Bhane, A. D. Desai, B. P. Londhe	Innovative Journal for Opportunities and Development in Science & Technology	2021	ISSN 2582-6026
20	Design, Develop and Validate Nitrile Hose in Mandrel less Construction	Vikas Choudhari, Prof. Dr. A.D. Desai	International Journal for Research in Applied Science & Engineering Technology (IJRASET)	2022	ISSN: 2321-9653
21	Design of Shell Tube Heat Exchanger Using Vibration Analysis	Maruti Kamble , Dr. A. D. Desai	International Journal for Research in Applied Science & Engineering Technology (IJRASET)	2022	ISSN: 2321-9653

6.0 Problems encountered and resources required

The SRCOE did not have much problem in implementing the above. Such practices are routinely used by the industry and corporate houses but are rarely used in academic institutions. So it needed some training and motivation to clearly explain the usefulness of these practices. The practice has been in place since the last more than two years and because of its immense benefits has been adopted throughout the Institute.

7.0 Note

The institute's ecosystem of IIC & R&D/Start-up etc. is very supportive ad faculty, as well as students, are encouraged to attend the conferences/organize conferences, publish papers, participate in technical competitions, and by doing so they get better exposure and it can help to evolve innovative ideas. Institute is striving hard to further strengthen this activity by incorporating the assistance by experts from the industry and more such MoUs shall be signed to foster the IIC-Start-up cell activities.



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Best Practice – 2

1.0 Title of the Practice – Promotion of Higher Education among Rural Areas and For Reservation Students

2.0 Goal

1. No development without education – A well-educated population, adequately equipped with knowledge and skill not only helps the economic growth but it also helps in inclusive growth.
2. Educational deprivation divides societies and consolidates unjust structures – There is a huge gap of literacy rate between rural and urban areas, between general and category students and hence rural and backward populations will not be engaged in the development process which will not bear the desired fruits
3. Educational deprivation leads to income poverty – Education can help to prepare the skilled based labor and human resources which will help to improve the income of the rural population.
4. One's responsibility country's responsibility – Education policy is one of the core responsibilities of the country and thus helps to boost National Development through highly educated Rural India

3.0 The Context

The importance of education in human growth is inevitable. Education is the right of every individual irrespective of gender, race, income, geographic location, culture or background. India as a developing nation has been systematically progressing on the educational front since its independence and has seen an appreciable surge in reaching out to all the classes of its society. The accelerated growth in the field of education will help in building Nation's strength. An overwhelming demographic divide still persists in accessing quality higher education with several communities still remaining under represented, contradicting the very objective of equity within the social growth of the country. SRCOE took a small step in helping achieving the social growth by promoting the importance of higher education among rural and reservation students. SRCOE conducted several lectures on career guidance, career opportunities, personal development and many more to motivate the rural and category peers of the society.



4.0 The Practice

The Government is ensuring to reach the quality higher education to every nook and corner of the country. The same is also depicted in NEP2020. SROCE understood the importance of higher education amongst the rural and reserved category, socially deprived students. We conducted a series of sessions for them and could monitor the increase in number of students from rural and reservation students.



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In few of the cases. Institute has granted concession in fees in order to motivate/encourage the students to go for higher studies. Details are mentioned in audit report. Also NGOs those provide financial support a training is given and few girl students are benefited. (Example- Lila Poonawalla Foundation). The list of sessions conducted by the faculty members conducted at various places is as follows,

Sr. No.	Date	School/College/Class Name & Place	Topic & Speaker	Photos
1	24 Dec.2021	Glori Jr. College Koregaon Bhima	Lecture on "Career Guidance" By Prof. Gunaware R.P, prof.Gaikwad A.B. & Gote S. S.	
2	24 Dec.2021	Shree Jawaharlal Vidyalaya,Kedgaon	Lecture on "Career Guidance" By Prof. Virkar S. B. Madane S.K.	
3	20 Dec.2021	Satav Highschool & Junior College	Lecture on "Career Guidance" By Prof. Vikas Gaikwad	
4	20 Dec.2021	V. S. Satav Highschool, Wagholi (MCVC)	Lecture on "Career Guidance" By Prof. Vikas Gaikwad	
5	22 Dec.2021	Late. M. V Bhagwat Highschool, Patas	Lecture on "Career Guidance" By Prof. Virkar S. B. Madane S.K.	



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