

7.2.1 Describe two best practices successfully implemented by the Institution as per NAAC format provided in the Manual

Best Practice I:

1. Title: Learning through competition: The institute devotes to imbibe skills development among the students to enhance the employability and the various skills such as leadership, marketing, time management, team building, team work etc. The technological changes in the world need to trigger and match the pace of engineering education.

2. Objectives:

- ❖ To develop the design skill and problem solving capabilities.
- ❖ To increase the team building activity.
- ❖ To improve leadership quality and management skills.
- ❖ To enhance employment and entrepreneurship ability.
- ❖ To improve decision making ability.
- ❖ To enhance manufacturing skills of students.
- ❖ To improve marketing skills.
- ❖ To enhance purchasing and costing capabilities.
- ❖ To identify the appropriate tools for various operations.
- ❖ To select appropriate manufacturing process.

3. Context: Institute's vision is to impart quality education and to minimize the gap between theoretical and practical knowledge in tune with the vision, priority and thrust, the institute consistently provides motivation, support, and platform for students to inculcate entrepreneurial, leadership, project management and multidisciplinary skills for enrichment of technical competency. Institute is distinctive in providing global platform to student's team to participate in national and international competitions like go-kart and supra, this platform helps students to deal with conceptualizing, designing, fabricating and testing the prototype which helps to minimize gap between theoretical knowledge and practical knowledge. The institute provides necessary financial assistance and resource every year to strengthen such activities. Due to regular schedule of academics selecting the right candidates and formation of the team for the activity is really a tough task due to shortage of time. In spite of busy academic schedule and shortage of time we had to put in extra hours for the manufacturing of Kart. Design of various components as per rule book is a challenging work. Non availability of machines such as Hydraulic bending machine, Notching machine, Laser cutting machine leads to delay in manufacturing activity. Non availability of testing track. Non availability of fixture for steering testing. Wire harnessing and its mounting is a big challenge in this activity. In spite of all these challenges the team put in their best efforts and provided solutions to all these faced challenges. The entire project is completed in the stipulated time frame and also ready to participate in the competitions. The teams of "Black spanners" (Go-

kart) and “Iron Head” (SAE Supra) are in action since 2015. This team participates in various national and international events. Teams consistently are representing our institute in various national level events.

4. The Practice: All students are informed well in advance by circulating notice regarding formation of team. Schedule of interview is displayed on notice board. Interested Students are interviewed to identify their various technical skills such as hands on design, manufacturing, documentation, modeling, presentation, analytical capabilities. Based on interview results team of passionate and enthusiastic members are finalized. Team is divided into various department's such as design, manufacturing, transmission, brake and documentation. Once departments are finalized various tasks are given to them. Various components are designed as per the criteria laid by rulebook. Selection of material is done based on design and analysis. According to material required, availability of material is checked in the market and quotations are invited from vendors for selecting appropriate vendor. For Cost optimization of the project we compare all quotations of different vendors. Thus we select the specific vendor with good quality material and finalize. Initially we manufacture the chassis of Kart by considering ergonomics and safety of driver. Various mountings such as bumpers, engine, driver's seat, steering wheel, brake are mounted on chassis. After mounting various components on chassis we perform various tests such as impact tests, crash tests, turning radius tests etc. Along with these tests we also perform tests such as skid pad, acceleration, autocross and brake tests on road. Based on tests results we identify drawbacks and provide solutions to overcome the drawbacks. After carrying out multiple tests and implementing the solutions we conclude our Kart to be fit for the competition. We register for various National and International competitions which are organized all over India. General flowchart of event activities is as follows,

5. Evidence of Success: The success of Go Kart and Supra activities have shown the decision making ability of each team member. Selection of appropriate manufacturing method and carrying out various operations indicates enhancements in manufacturing skills. Presentation of business plan leads to development in marketing skills. Selection of right vendors leads to enhancement in purchasing and costing capabilities of the students. Our students have prepared the Go Kart with their innovative ideas and design but due to Covid -19 pandemic situation, unable to participate any events.

6. Problems Encountered and Resources required: Design and analysis of various components in compliance with rule book was a big challenge due to cost effectiveness and viability of the project. We had to ensure that the components, materials selected for the project must be reliable, durable and within budget, as such Selection of materials for various components was a big challenge. Due to time constrain and also selecting the right member for creating the Best Team for the project screening of the right candidates for their best skills was Critical and challenging task. Team members also had to be trained in the shortest period of time due to given stipulated time frame. Due to Non availability of machines such as Hydraulic bending machine, Notching machine and laser cutting machine at Institute, getting these tasks done from outside agency

consumed lot of time which lead to delay in manufacturing activity. Due to tight academic schedule and time constrain Short time span is available for the activity. For technical guidance skilled and experienced faculties from various specializations are required. For Design and Simulation of Various components high end design softwares like ANSYS, Hypermesh etc. are required to be installed to check the feasibility of the components. Various machines and machine tools such as welding machines, grinding machines, drilling machines are required for the manufacturing of the components of the kart. Skilled and technical manpower is required. Standard Design Data Books and Reference books of various subjects are required.

7. Motivation: Students get an opportunity to display their talent, technical skill and managerial skills. Awards and appreciation from various national and international organizers. Appreciation by Faculties and college management. Distinct financial assistance and resources availed by the institute for the Go-Kart and Supra activities.

Best Practice II:

1. Title: Adopting Digital mode of teaching by use of Digital content source.

2. Objectives:

1. Changing the traditional mode of teaching learning to innovative methods
2. Making effective use of ICT
3. Developing Digital Content
4. Increasing the student's participation
5. Creating awareness about the ICT tools

3. Context:

The problems like Covid -19 pandemic created lot of challenges in front of educational institutes. The teaching learning process became tough and challenging these days. Keeping the student's attention and attendance in online class is the toughest task for the teacher. We decided to use the available resources with institute like Digital Content Development Cell and ICT tools to address this issue.

4. The Practice:

The practice is to make the use of unique resource available with the institute Digital Content Development Cell. Institute has a fully equipped digital studio where the lectures can be recorded. Under this practice every subject teacher prepared the following digital content

1. The recorded Video Lectures
2. Practical videos
3. PPTs
4. MCQ
5. Question Bank
6. Other Study material like notes etc

This all is uploaded on institute moodle server through which all the students can get the access any time he/she needs.

The moodle platform is also used for assessment and evaluation purpose which helped students and faculties to prepare for online examinations

5. Evidence of Success:

This practice helped in following ways

- i. The Digital content using ICT tools available for student round the clock.

The sample list of recoded videos is given below:

FE Department					
Sr No	Name of Faculty	Name of Module	Plaform on which Module Developed	Date of Launching Content	Links
1	Prof.D.E.Chaudhari	Video on Respective Topic	JSPM NTC Academics Offical Youtube Channel For Publishing Institute E-content	10-07-2020	https://youtu.be/gMrKmSaHvDU
2	Dr. P.V.Yadav			7-10-2020	https://youtu.be/pjeS0h-MIFE
3	Dr. P.V.Yadav			07-04-2021	https://youtu.be/4k4jPqaDHXo

3	Prof.A.V. Gore			27-07-2020	https://youtu.be/GvcyKtNSW9c
4	Prof.S.S.Ambare			28-08-2020	https://youtu.be/gdX048be5xQ
5	Prof.S.S.Ambare			31-3-2021	https://youtu.be/mzcc6iCS5r4
6	Prof.P.P.Naik			05-09-2020	https://youtu.be/OMWGuwfWGlC

Mechanical Engineering First Shift

Sr No	Name of Faculty	Name of Module	Platform on which Module Developed	Date of Launching Content	Links
1	Mr. G. H. Bhosale	Video on Respective Topic	JSPM NTC Academics Offical Youtube Channel For Publishing Institute E-content	08-11-2020	https://youtu.be/HTrncBsd8oY
				09-23-2020	https://youtu.be/OVxGibgpLVU
				09-04-2020	https://youtu.be/hP6qlv8vjsg
				09-05-2020	https://youtu.be/W6jpbijvSHM
				09-05-2020	https://youtu.be/XQZSy7yy1vQ
				09-30-2020	https://youtu.be/i7qYtvJvoNA
6	Mr. J. M. Jadhav			5-10-2020	

7	Mrs. A.D.Halwe			6-11-2020	https://youtu.be/QAPkZsNuc7Q
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Mechanical Engineering Second Shift

Sr No	Name of Faculty	Name of Module	Plaform on which Module Developed	Date of Launching Content	Links
1	Mrs.A.M.Kadam	Video on Respective Topic	JSPM NTC Academics Offical Youtube Channel For Publishing Institute E-content	08-10-2020	https://youtu.be/1t4pUqjKC6o
2	Dr. K.S.Rambhad			09-02-2020	https://youtu.be/g9aYg0x5mBc
3	Mr. Nand Jee Kanu			26-08-2020	https://youtu.be/zf0KrlO7qyg

E&TC Department

Sr No	Name of Faculty	Name of Module	Plaform on which Module Developed	Date of Uploaded Video	Links
1	Prof. S. J. Mane	Video on Respective Topic	JSPM NTC Academics Offical Youtube Channel For Publishing Institute E-content	8-20-2020	https://youtu.be/kFHgbNgYZUg
2	Prof. P. P. Jadhav			8-20-2020	https://youtu.be/ayxRzSP81nk
3	Prof. K. B. Jadhav			09-05-2020	https://youtu.be/cgmvXbkFFVc

4	Prof. N. R. Kadam			9-10-2020	https://youtu.be/hHSlabOGFI8
5	Prof. S.B. Shinde			9-23-2020	https://youtu.be/BTAfuvJXddQ

Computer Engineering Department

Sr No	Name of Faculty	Name of Module	Platform on which Module Developed	Date of Uploaded Video	Links
1	Prof. Dipali Patil	Video on Respective Topic	JSPM NTC Academics	6-9-2020	https://youtu.be/mkrq1W2BmDk
2	Prof. Snehal Shinde		Official Youtube Channel For Publishing Institute E-content	6-9-2020	https://youtu.be/ge68qH1aKBc
3	Prof. S. D. Patil			24-9-2020	https://youtu.be/h53bPEqr8No
4	Prof. P. S. Patil			24-9-2020	https://youtu.be/tjJRZ3Q0gHo

Civil Engineering Department

Sr No	Name of Faculty	Name of Module	Platform on which Module Developed	Date of Uploaded Video	Links
1	Prof. N. V. Chaple	Video on Respective Topic	JSPM NTC Academics	15-08-2020	https://youtu.be/zj-WjlyOPXY
2	Prof. N. V. Chaple		Official Youtube Channel For	09-06-2020	https://youtu.be/dhvRYoEM6ZI

3	Prof. N. V. Chaple	Publishing Institute E-content	9-6-2020	https://youtu.be/MRLOwYBHeh8
4	Prof. D. A. Zamre		09-06-2020	https://youtu.be/RJpD0cnDzlc
5	Prof. V. V. Muthekar		09-06-2020	https://youtu.be/0yI9te69pB4
6	Prof. P. V. Wayal		18-09-302020	https://youtu.be/BYpkXBZ1bZY

MCA Department

Sr No	Name of Faculty	Name of Module	Plaform on which Module Developed	Date of Uploaded Video	Links
1	Prof. Deepika Sarwate	Video on Respective Topic	JSPM NTC Academics Offical Youtube Channel For Publishing Institute E-content	11-09-2020	https://youtu.be/2SK64edFcws
2	Prof. Ravindra Ingale			09-26-2020	
3	Prof. Sachin Lende			10-01-2020	https://youtu.be/lpUFaW527tQ
4	Prof. Shilpa Deshmukh			09-29-2020	https://youtu.be/2SK64edFcws
5	Prof. Ashwini Tekale			09-25-2020	https://youtu.be/AnwYxsdLmgs

MBA Department

Sr No	Name of Faculty	Name of Module	Platform on which Module Developed	Date of Uploaded Video	Links
1	Dr. Archana Singh	Video on Respective Topic	JSPM NTC Academics Official Youtube Channel For Publishing Institute E-content	11-09-2020	https://youtu.be/IXKDOcDA_g0
2	Mr. Charanjit Singh			11-09-2020	https://youtu.be/Y6feldYavJU
3	Dr. Rajendra Chaudhari			11-09-2020	https://youtu.be/Y6feldYavJU

- ii. The student's attendance in class is increased
- iii. The academic results are also improved
- iv. The number of students got placed is increased

6. Problems Encountered and Resources Required:

Adapting to the new technologies facing to camera and creation of digital content was the challenging task for the faculty members.

Practice and training from the experts helped the teachers to understand the new innovative methods

7. Notes (Optional)