

NAAC AQAR 2020-2021

Best Practice_2

1. Title of the Practice: Tata Technologies' Ready Engineer Programme

2. Objectives

- To enhance technical skills of engineering graduates to improve their employability and reduce the time and resource spent by companies on re-training graduate engineers.
- To achieve this MoU has been signed between TATA TECHNOLOGIES and our institute.

3. The context

The industry in India routinely faces an acute shortage of competent engineers who are employable or industry-ready to immediately deliver on engineering services projects after graduating from colleges. As per NASSCOM and ASPIRING MINDS,

- Only 7 per cent engineering graduates are employable.
- As many as 97% graduating engineers want jobs either in software or core engineering but, only 3% have suitable skills to be employed in software and only 7% can handle core engineering tasks.
- The industry spends 1 Billion USD/year in training them for the job.
- Only 10 % of the engineers passing out of colleges from Tier 2/3 cities in the country are employable.
- 40% of the engineers do not have basic quantitative skills required for day-to-day life and even entry-level engineering jobs.

4. The Practice

The programme is designed specially to train young engineers, in a classroom way, but will involve a practical approach. These ready engineers are easily picked up by the industry.

The institute conducts Ready Engineer Programme in association with TATA TECHNOLOGIES for students appearing in Third Year. The purpose of this programme is to bridge the engineering industry talent gap by educating and mentoring aspiring young engineers. The aim is to be a catalyst in reducing the academia-industry gap and ensure that the future engineers are ready for the industry.

Supported by TATA TECHNOLOGIES' online learning platform, iGETIT®, the faculty members of the department give classroom training related to the core mechanical modules.

This Program helps students gain additional knowledge in the area of automotive design thus building confidence, which helps them facing campus-off campus interviews. KIT's College of Engineering (Autonomous), Kolhapur is acting as a nodal college with other 5 satellite colleges working under it. The faculties are trained by experts from TATA TECHNOLOGIES.

The Ready Engineer Program is conducted in Two parts

1. **PART-I** (Fundamentals of Automobile Design): PART-I is conducted in First Semester of Third Year. The core mechanical modules like CATIA, Styling and Product Design, Bonnet Design and Development, CAE, Formability, Die Design and Fixture Design are taught to selected and exemplary students. This course is conducted addition to regular curriculum after college hours.
2. **PART-II** (Advanced Automobile Design): PART-II of the course also known as Advanced Automobile Design is conducted in Second semester of Third Year. This course is related to advanced knowledge in the field of automobile Design. Here advanced automobile domains like Product life cycle and important gateways for BIW, Introduction to Plastic trims, Design concepts and considerations in BIW, BIW and trim Materials and Grades, DFMEA, Introduction to Design Verification, CAE Analysis and Test Validation & Assessment are covered. This Course is implemented as an elective subject in curriculum of T.Y.Mech.

Additionally, the students get soft skill training through Learning Matters' KengageKonnnect platform. Under this initiative following tests are conducted:

1. **AMPI (Personality Inventory):** test is conducted post enrollment stage for all the shortlisted students. AMPI provides the insights of a candidate's personality to have a better understanding of their productivity, performance and trainability. Understanding how a candidate will behave in various situations can determine his or her success in performing specific roles. AMPI is an contemporary five-factor model of personality also commonly known as the "Big Five" model. It measures five broad traits like Extraversion, Conscientiousness, Emotional Stability, Emotional Stability and Emotional Stability
2. **AMCAT (Common Aptitude Test):** is conducted for all the shortlisted students. AMCAT is a multi-dimensional adaptive instrument that measures the knowledge, skills and personality required for multiple job roles. AMCAT Covers four broad employability skills
3. Detailed score card & individual report shall be provided to each student Students are further advised to improve upon their weak areas with the help of the various reference trainings links provided

5. Evidence of Success

There is substantial contribution of faculty of KIT's College of Engineering (Autonomous), Kolhapur, in framing and finalizing the curriculum of advanced automobile design based as per guidelines from TATA TECHNOLOGIES.

In 2019, TATA TECHNOLOGIES, PUNE wanted to introduce this program at Babasaheb Ambedkar Technological University, Lonere. They wanted us (KIT's College of Engineering (Autonomous), Kolhapur) to represent the academic content delivery of the program in front of Hon. Vice-Chancellor, BATU Lonere in a meeting scheduled on Monday, 10th June 2019.

The Final examinations for both the parts mentioned above are conducted by TATA TECHNOLOGIES through CoCubes.

In last year, KIT's College of Engineering (Autonomous), Kolhapur got **First Rank** all over India in the exam conducted for TATA TECHNOLOGIES' Ready Engineer Advanced (Part-

II) Program which was conducted on **29 July 2020**. Six of our students are also amongst the top rankers all over India. In this examination, 70 students out of 85 were certified and the success rate is 82.35%.

In current year, 83 students have been certified and 15 students have got participation certificate.

YEAR	Participated	Certified
2016-2017	113	60
2017-2018	52	47
2018-2019	88	62
2019-20 Part 1	79	37
2019-20 Part 2	84	70
2020-21 Part 1	75	50
2020-21 Part 2	107	83

The impact of program:

The faculty of the college has trained the professors of the colleges in and around Dharwad. The success of TTL-RE program is reflected in the results. Every year, most of the certified students have been placed in various reputed organizations in the domain of CAD, Automotive and Design Engineering.

6. Problems Encountered and Resources Required

1. As this is add on course which is conducted on weekly offs and holidays, in addition to regular academic curriculum, getting sufficient time to conduct the sessions is sometimes challenging.
2. During COVID-19 pandemic situations, the entire program was conducted through purely online mode. As few of the modules are practical oriented, students faced some issues regarding getting enough practical exposure especially with modules like CATIA V5.

7. Notes

1. In academic year 2019-20, our college got no 1 rank among all other RE colleges across India.
2. In academic year 2019-20, out of top 12 students, 6 students are from our college with Ms Shamita Karvekar securing 2nd rank overall
3. In 2019, TATA TECHNOLOGIES, PUNE wanted to introduce this program at Babasaheb Ambedkar Technological University, Lonere. They requested us (KIT's College of Engineering (Autonomous), Kolhapur) to represent the academic content delivery of the program to Hon. Vice-Chancellor, BATU Lonere in a meeting scheduled on Monday, 10th June 2019.
4. The faculty of the college has trained the professors of the colleges in and around Dharwad in January 2018