

(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi.
Approved by A.I.C.T.E. New Delhi.
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# Two Best Practices successfully implemented by the institution for the academic year 2022-23

SL NO.	Particulars
1	Enhancing research Acumen in the Institute of Faculty and students for sustainable Innovation
2	Incorporation of Bloom's Taxonomy in the Internal Assessment to augment Teaching learning process in the Institute

PRINCIPAL
The Oxford College of Engineering
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Bengaluru-560 D68



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**Best Practice of the Institute-1** 

Enhancing research Acumen in the Institute of Faculty and students for sustainable Innovation

**Objective of the Practice:** 

The Oxford College of Engineering believes that, The Quality in higher education depends on the ability of the institution in new knowledge creation. Keeping in line with this and Institution Mission and Vision in mind, the institution has developed research policy to add research component as major component of higher education curriculum.

**Objectives:** to strengthen research culture among faculty and students by

- Providing techno platform
- Organizing brain storming sessions
- Strengthening MOU with Industry and Academia
- Incentivizing Publication. IPR and PI-CPI of funded projects
- Providing Institutional seed money

#### **The Context:**

The institutions promote research atmosphere in the campus and encourages faculty members to involve in useful research. TOCE give emphasis to recruit research-oriented faculty members, provides financial supports in the form of institutional research funding, seed money, financial assistance and incentives for publication, filing IPR and publication, setting up research centers in identified areas and promoting research through them,



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#### The Practice:

With the motto of enhancing research acumen in the faculty, the Institute

- Organizes periodic national/international conferences in the institution with faculty and student's active participation. The institute consistently provides Techno-platforms for the students and faculty to augment, exchange their domain skill sets. The institute promotes faculty to attend workshop, value added courses, FDP etc to enrich their domain skills which intern useful in creating new knowledge and skills and imparting them to the students.
- Setting up targets both for faculty members at different cadre, and motivating & monitoring the progress periodically.
- Institutions aims at creating value through student involvement in research-based projects guided by faculty members and industry collaborators.
- Institution provides seed money to encourage innovative ideas of faculty/students and encourages submitting it for funding agency for financial assistance. In the academic year 2022-23, 56 students research project proposal were submitted, of which 10 projects were shortlisted for financial assistance under KSCST-SPP-46 series, Visvesvaraya Technological University (VTU) has extended financial assistance for best two projects under Project promotion scheme across the departments in 2022-23, 22 research ideas were funded by VTU.
- Institution encourages research publications and extends financial support to attend National & International Conference, to publish their research findings in journals of high repute
- Institution promotes industry internship projects to involve students in research activities.
   Students are compiled to develop at least one case study paper/review paper and one empirical research paper during their graduate/post graduate course period along with their faculty guide.



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- To nurture the innovative ideas, Institution has established Research centers in identified
  futuristic areas as per faculty member's specialization, creating infrastructure for research
  centers, IT facilities, online information and database subscription, providing
  Computation and data analysis facilities to faculties and students.
- Recognizing faculty and student achievers annually in research contribution during Research Day event.
- Institution has well organized R&D committee which works extensively providing opportunity to increase institutional collaborations both at national and international level in multi-disciplinary areas.
- Institution also supports filing of IPR by faculty and students, to facilitate it, Institution
  provides, technical mentoring, financial assistance for ideation, concept development,
  POC development and prototype and product development.

#### **Evidence of Success**

- Institution has ranked in NIRF Innovation ranking in the Band of 100-150.
- The faculty published 112 research articles in reputed journal of high impact (78 Scopus indexed, 17 SCI indexed, 17 Google Scholar). 35 Book chapters were published by the faculty
- Faculty was successful in getting 2 Patent granted and 26 patents filed and published.
- Faculty received 45.63 lakhs of financial assistance as research grant from various Government funding agencies like DST-SERB, VGST, KSCST, etc.,
- 10 Innovative ideas were nominated in Skill India Hackathon in Yukthi portal of MOE.
- With the aim of augmenting domain knowledge of students, Institution conducted 21 Value added courses across the departments.
- Institution established 15 MOU to facilitate Industry Institute interaction.



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 To promote interaction with outside world, institute conducted 60 interactions in terms of Student exchange, internship, technical training, workshop, innovative project, joint publication, knowledge sharing activities.

- 23 faculties recognized as Research Supervisors in Visvesvaraya Technological University and 51 research scholars are pursuing Doctoral degree in various research Centers of the Institution.
- Students actively participated in Hackathons and won various grades, Mr.Abhishek, (Biotechnology 6<sup>th</sup>sem) Yasmin and Sanjana Benhal (ECE2<sup>nd</sup>sem) won FIRST prize worth of 1 Lakh rupees. The Honorable Chief Minister and Deputy Chief Minister, Minster for Environment, GOK honored the winners. To promote Technical Club activities, 16 of events were conducted under IEEE society, ISTE 1 and CSI 2 events.

#### **Problems Encountered and Resources Required**

- More rejection rate of Faculty research proposals submitted for financial assistance to funding agency
- Publication of research manuscript in journal of high Index factor, SCI, Q1& Q2 journals
- Startup registration and Incubation center.

**Supporting Documents:** List of grants received for the academic year 2022-23 along with the nature of award, the awarding agency and the amount. Number of functional MoUs with institutions, other universities and industries, corporate houses etc... List of completed projects funded by institution, Details of research papers published. Books and chapter edited volumes/books published and paper published in national and international conference proceeding, student's centric method. Refresher Course/Faculty Orientation or other Programmers as per UGC/AICTE stipulated Period Participated

1. <a href="http://www.theoxfordengg.org/pdf/naac2223/3.1.1%20Funded%20Project%20e%20copies%20of%20the%20documents.pdf">http://www.theoxfordengg.org/pdf/naac2223/3.1.1%20Funded%20Project%20e%20copies%20of%20the%20documents.pdf</a>



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- 3. http://www.theoxfordengg.org/pdf/naac2223/3.2.1\_DOC% 202% 20FINAL% 20o ngoing% 20projects,patents% 20and% 20project% 20sanctioned% 20letters.pdf
- 4. <a href="http://www.theoxfordengg.org/pdf/naac2223/3.3.2">http://www.theoxfordengg.org/pdf/naac2223/3.3.2</a> Research% 20paper% 20Publi cation% 20Web% 20Link% 202021-2022.pdf
- 5. <a href="http://www.theoxfordengg.org/pdf/naac2223/333.pdf">http://www.theoxfordengg.org/pdf/naac2223/333.pdf</a>
- 6. <a href="http://www.theoxfordengg.org/pdf/naac2223/2.3.1\_Student%20centric%20meth">http://www.theoxfordengg.org/pdf/naac2223/2.3.1\_Student%20centric%20meth</a>
  <a href="http://www.theoxfordengg.org/pdf/naac2223/2.3.1\_Student%20centric%20meth">http://www.theoxfordengg.org/pdf/naac2223/2.3.1\_Student%20centric%20meth</a>
- 7. <a href="http://www.theoxfordengg.org/pdf/naac2223/6.3.4%20(FDP)%20during%20the%20yearm(Professional%20Development%20Programmes,%20Orientation%20%20Induction%20Programmes,%20Refresher%20Course,%20Sho.pdf">http://www.theoxfordengg.org/pdf/naac2223/6.3.4%20(FDP)%20during%20the%20yearm(Professional%20Development%20Programmes,%20Orientation%20%20Induction%20Programmes,%20Refresher%20Course,%20Sho.pdf</a>



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#### **Best Practice of the Institute-2**

Incorporation of Bloom's Taxonomy in the Internal Assessment to augment Teaching learning process in the Institute

**Objectives of the Practice**-Aim of implementing Bloom's taxonomy are to encourage higher-order thought in the students by building up from lower-level cognitive skills. Institute takes utmost care to ensure prominent enlightenment of the students. Keeping the same in mind we have incorporated Bloom's Taxonomy in our Internal Evaluation.

The objectives for introducing the same are as follows:

- To ensure learners combine known patterns, ideas and facts to create original work or formulate their solution to a problem
- To assists educators in determining the intellectual level at which individual students can work and develop clear objectives in their framework.
- To ensure faculty can better understand the goals of the classroom and alter the questions' level of difficulty and aid learners in ascending the hierarchical scale.

The Context- the Oxford College of Engineering being an affiliated college to Visvesvaraya Technological University (VTU) has limited liberty in design of courses. The question papers for the end semester examinations are set by the VTU which has to be followed by the college. With the introduction of the CBCS system the Institute has taken key steps in conducting the Internal Assessment ensuring all the parameters of Bloom's Taxonomy is implemented, i.e., catering to the cognitive, affective and psychomotor domain, for better learning of the students.

**The Practice-** Being an affiliated college to Visvesvaraya Technological University (VTU), The Institute has limited liberty in design of curriculum. However with the intension to deliver the curriculum effectively and to make it more learner centric, we have designed our course plans meticulously to meet the learning level of our students. The Internal question papers were framed



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keeping all level of learners in mind. Ex, 50% of the questions were framed covering the "remember" and "understand" aspect of Bloom's taxonomy and rest with "apply", "analyze", "evaluate" and "create" aspects. So that, students will become more familiar with all types of questions during SEE.

The problem in the application of this practice was that since The Institute receives students of all ranges of KET ranks, rural and regional language category and other slow learners 'sections, they struggle to keep up with this change in the style of internal assessment. However, the respective subject teachers take additional efforts to such students by giving personal attention, remedial class, tutorial, mentoring and guidance and helping them to grasp the intricacies of Bloom's taxonomy.

#### **Evidence of Success-**

- Improvement in the cognitive levels of our students.
- Able to understand the numerical, problem-oriented topics in a better way and subsequently evaluate and analyses their impact on society.

#### **Problems Encountered and Resources Required**

The students taking admission here are majorly from the rural background and of higher KET ranks. It becomes little difficult to make such students understand the conception of Bloom's Taxonomy. However, our committed faculty members have made all the possible efforts to make students comprehend the concept and adapt themselves to the changing patterns of Internal Assessment.

**Supporting Documents:** CIE result analysis, Curriculum Delivery & Planning

- 1. http://www.theoxfordengg.org/pdf/naac2223/6.5.2%20IA%20Result%20Analysis.pdf
- 2. <a href="http://www.theoxfordengg.org/pdf/naac2223/1.1.1%20CDC.pdf">http://www.theoxfordengg.org/pdf/naac2223/1.1.1%20CDC.pdf</a>