

Research & Development

While doing significant innovations in the Teaching – Learning process using Academic Autonomy, the faculty at Vishwakarma Institute of Technology, Pune are also active in evolving the research culture at the institute. Our relentless effort is always to foster research to contribute towards societal benefits. We have established a Research Forum, which consists of faculty actively pursuing research and our Ph.D. and MTech students. The forum has a well-established mechanism through which all R&D activities are promoted, encouraged and appraised.

The Research Forum implements wide ranging activities such as promoting applied and basic research, technology development, establishing centres of excellence, honing and cultivating appropriate research skills within faculty by deputing for Ph.D. studies, Conferences, Workshops and Short Term Training Programs (STTPs), promoting faculties to submit research proposals for different funding agencies viz. Savitribai Phule Pune University, All India Council for Technical Education (AICTE), University Grants Commission (UGC), Department of Science & Technology (DST), Indian Space Research Organization (ISRO), Défense Research & Development Organization (DRDO), Council for scientific and Industrial Research (CSIR), etc.



Research Work Force

We have established a research steering committee which consists of honourable director as the chairman, Dean R&D and Industry Relations as the member secretary and a representation from every department (a faculty actively pursuing research). The main tasks of this steering committee are as follows:

- Identification of major research areas within the domains of study in the respective departments.
- Formulation and implementation of Research Policies such as research appraisal policy, research quality policy, conference and training deputation policy, VIT research grant policy, research funds utilization policy, internal revenue sharing policy, etc.
- Identification of training needs of faculty to strengthen the R&D culture.

- Setting up Industry Advisory Board (IAB) at the department level, for managing industrial collaboration and agreements and further, leveraging on consultancy work.
- Developing linkages with national and international institutions for R&D.
- Motivating faculty for applying for research grants from national, international and private funding agencies, Scientific Research Institutions, Scientific Associations and Bodies.
- Developing Centers of Excellence at various departments.
- Organizing conferences, workshops, seminars and other research oriented events.
- Defining ISO procedures for departmental research data collection, Training need identification, deputation and feedback.

ICT based Content Development

- Various modes of ICT based content development are used as shown in Fig. 1.

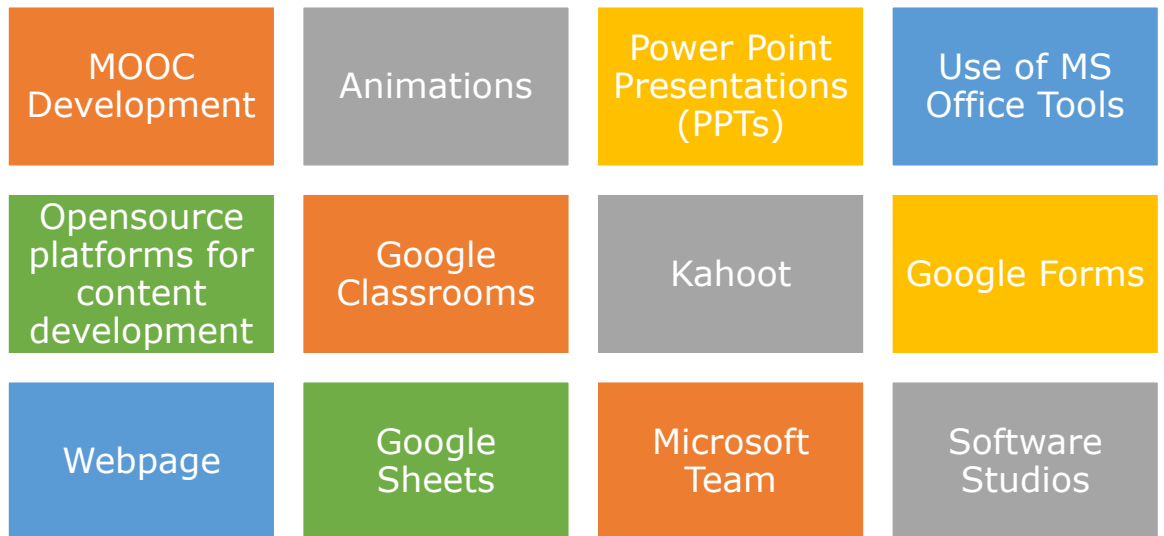


Fig. 1 Various modes of ICT based content development

- E-Content Development Centre (e-CoDeC) is established in the institute with the support from the Hon. Management. This centre consists of facilities for MOOC development as shown in Fig. 2.

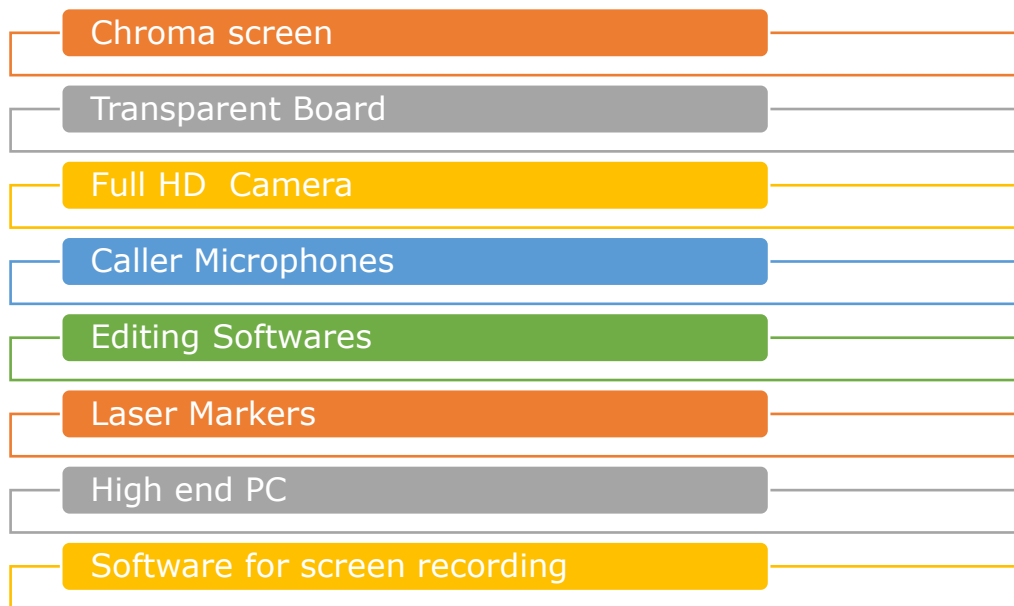


Fig. 2 Various facilities for MOOC development

- Faculty uses chroma screen as shown in Fig. 3 is used for recording of PPT based contents, developing videos based on group discussions, explanation of concepts.
- Transparent board as shown in Fig. 4 is used for contents related to mathematical / diagram based topics
- Various ICT tools such as PPTs, MS Office, Kahoot are used for making effective presentations, addition of quiz to make lecture effective and meaningful.
- Google Classroom, web page, Microsoft team is also used for better communication between faculty and student so as to make the process of teaching-learning effective and to get 24 X 7 support to the students from the teacher.
- Google forms, Google Sheets are used as a part of collaborative tasks required during the teaching learning process.



Fig. 3: Chroma Screen in e-CoDeC of the institute



Fig. 4: Transparent Board in e-CoDeC of the institute

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