



ANNAMACHARYA INSTITUTE OF TECHNOLOGY & SCIENCES

(Approved by A.I.C.T.E, New Delhi & Affiliated to JNTU Anantapur, Anantapuramu)
(Institute Accredited by NAAC, Bangalore) (Institute Accredited by IE (I), Kolkata)

Title of the Practices:

1. Inculcating the spirit of research among faculty for a progressive technological growth

1.1 Objectives of the Practice

- To improve quality in the teaching-learning process
- To enhance quality in UG and PG students projects
- To publish papers in referred Journals and Conferences
- To undertake collaborative projects and consultancy for long term interaction with the academia and industry
- To attain Intellectual Properties Rights (IPRs)
- To get research projects from several funding agencies

1.2 The Context

Research is a never ending quest for knowledge, which can be used for the development of the society. Today's world is rapidly developing, giving way and scope for new research initiatives to improve the living standards of the society. To keep up with the development, the growing needs and demands have become the most essential parameters in the academic institutions. To meet such demands, continuous research and development of new products and projects has become the need of the hour. To become a building block for the development of the society has motivated the institution to strengthen Research & Development activities that focus on various independent domains and encourages multi-disciplinary research.

1.3 The Practice

Teaching and research must go together. With this objective, research is promoted by the institution in the followings ways:

- Providing high end computing facilities with internet, Wi-Fi and other facilities
- The institute sponsoring for Conferences / Seminars / Workshops / Refreshers courses such as STTPS, FDPs etc., by providing financial assistance to a maximum of Rs. 3,000/- and considering the absence on all such cases as on duty.
- Institute encourages faculty members to publish their research papers in UGC
- Group-1 and Group-II journals by paying a minimum amount of Rs. 3,000/- and a maximum of Rs. 15, 000/- (Based on Impact factor of journals)
- Institute sponsoring financial assistance up to a maximum of Rs. 15,000/- to the faculty members who authors books for international publishers
- The institute offers Rs. 20,000/- grant to faculty as an incentive for obtaining a patent



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- The institute also offers 20% and 80 % share for their consultancy contribution among teacher and institution respectively.
- The institute also offers financial incentive of 15% of the research grant received by the faculty
- Exposure to international expertise by organizing invited lectures, workshops, seminars and conferences etc.,

1.4 Evidence of Success

The hard work done our faculty members, the following achievements have taken place in the institute for last three years.

S. No	Description	2018-19	2019-20	2020-21	2021-22	2022-23
1.	Number of teachers availed the facilities provided by the institute and obtained their PhD	5	5	6	4	10
2.	Number of teachers availing the facility and pursuing their Ph.D.	73	63	57	50	55
3.	Number of international publications by the faculty (Scopus and Web of Science only)	71	125	108	67	102
4.	Number of funded projects / Research Grants , sanctioned	05	05	04	06	06

There is a tremendous improvement in teaching learning process as the faculty is exposed to latest areas of their topic of research. Further, they are able to help the faculty who are fresh to initiate research. Student's publications have increased and quality of student projects both UG and PG has been enhanced.

1.5 Problems encountered and Resources required

- The major problem encountered is the limited interaction with industry. The institute has tie –up with some industries to improve quality in research
- Necessary steps are taken up to get qualified and experienced teachers to fill the gaps
- It is essential to minimize the teaching load on teachers for performing research activities.



Title of the Practice:

2. Multi-dimensional Bloom's Taxonomy-based Lesson Plans for Effective Teaching and Learning

2.1 Objective of the Practice

The objective of this practice is to ensure that teachers can classify and clearly define different learning outcomes and skills for their students. By leveraging Bloom's Taxonomy, educators can create structured lesson plans that cater to various learning domains, ultimately enhancing student achievement and engagement.

2.2 The Context

Achieving equity, diversity, inclusion, and quality within the education system requires systematic planning and effort. An effective teacher inspires stronger self-belief and a greater interest in learning among students. This can be achieved through meticulous planning and appropriate teaching strategies. Students from diverse backgrounds can significantly benefit and learn better through well-designed micro-lesson plans. A teacher's creativity and encouraging attitude can make a profound difference in students' lives, helping them realize their full potential.

2.3 The Practice

Integrating common digital tasks such as moderating, blogging, using infographic tools, and incorporating audiovisual materials can create a learner-centric environment on a blended learning platform. The well-designed tasks, including pre-class activities, in-class activities, and post-class activities, add enthusiasm and zeal to students' learning experiences. These activities are structured to align with the various levels of Bloom's Taxonomy, ensuring comprehensive coverage of learning objectives.

2.4 Evidence of Success

The implementation of the micro-lesson plan has yielded remarkable results at Annamacharya Institute of Technology & Sciences, Rajampet. This practice has been recognized as one of our institution's best practices. The well-defined micro-lesson plan, structured around multi-dimensional Bloom's Taxonomy, has proven essential for better understanding, skill acquisition, and knowledge retention.

Key indicators of success include:

- Increased student engagement in learning activities
- Adequate use of e-resources
- Achievement of desirable learning outcomes
- Satisfactory results in assessments and placements



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2.5 Problems Encountered and Resources Required

- Some faculty members struggle to prepare lesson plans due to insufficient knowledge of Bloom's Taxonomy's knowledge domains.
- The hectic academic schedules prevent faculty from consistently developing multi-dimensional Bloom's Taxonomy-based lesson plans for all courses.

By addressing these challenges and providing necessary training and resources, we aim to further enhance the effectiveness of this practice, ensuring continuous improvement in teaching and learning outcomes at our institute.