

Department of Electronics and Communication Engineering

A Report on

Five-Day workshop on

"Curriculum Framework Development and Implementation"

from 25/04/2022 to 29/04/2022

A Five-Day Workshop on "Curriculum Framework Development and Implementation" was organized by the Department of Electronics and Communication Engineering for the faculty members of institution from 25/04/2022 to 29/04/2022. A total of 45 faculty members participated in the workshop, which focused on enhancing their knowledge and skills in curriculum development and effective implementation. The primary objective of the workshop was to strengthen the participants' understanding of Outcome-Based Education (OBE), curriculum design, implementation, assessment, and Continuous Quality Improvement (CQI).

Day-1: 25 April 2022 Inauguration 9:15 am to 9:45 am

The workshop was inaugurated by Prof C.V. Krishna Reddy, Director, NNRG, Prof G Janardhana Raju, Dean-School of Engineering, and Prof P. Sreenivasa Reddy, ECE-Head at the ECE seminar hall.

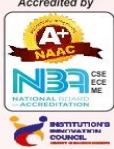


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Department of Electronics and Communication Engineering
Organizing
A Five Day Workshop on
Curriculum Framework Development and Implementation

Date: 25-04-2022 to 29-04-2022
Venue: ECE Seminar Hall

Coordinator
Prof. P. S. Srinivas Reddy
HoD - ECE, NNRG

Day-1: 25 April 2022 (9:45 am - 11:00 am)

Session 1: Outcome-Based Education (OBE): Concepts and Framework

Resource Person: Prof G Janardhana Raju, Dean-SoE, NNRG

The inaugural technical session introduced the philosophy and principles of Outcome-Based Education (OBE). The resource person explained the transition from traditional teacher-centered education to learner-centered education with measurable learning outcomes. Participants understood the relationship among PEOs, POs, PSOs, COs, teaching-learning activities, and assessment strategies. The session highlighted the importance of continuous evaluation and evidence-based quality assurance. Faculty appreciated the relevance of OBE in improving student learning and NBA accreditation.



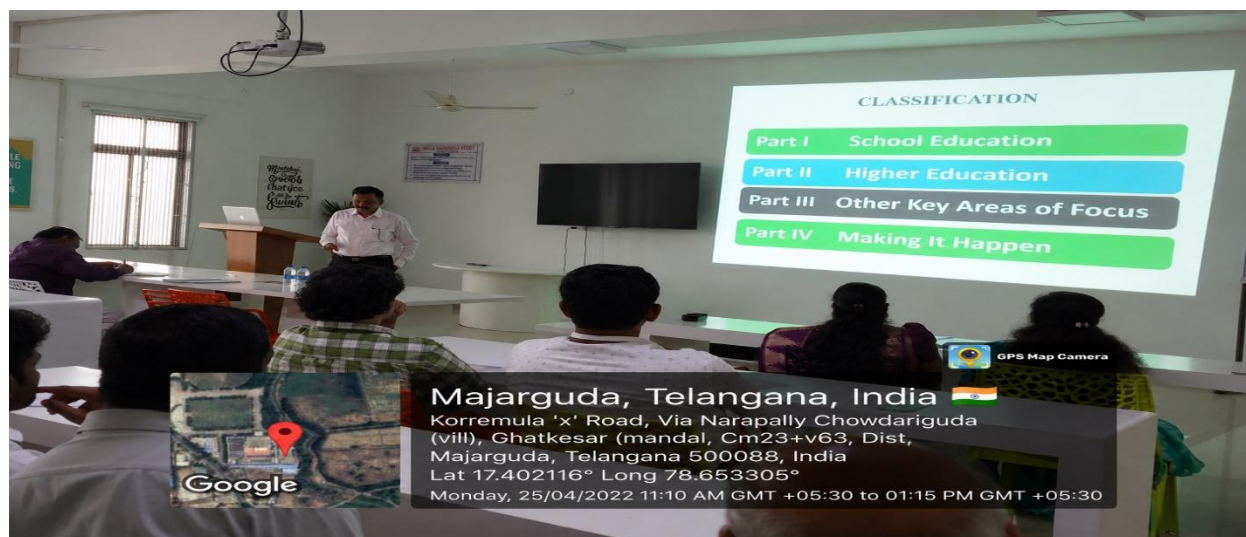
Prof G Janardhana Raju, Dean-SoE, delivering talk on OBE

Day-1: 25 April 2022 (11:10 am-1:15 pm)

Session 2: National Education Policy (NEP)

Resource Person: Prof C.V Krishna Reddy, Director, NNRG

The session focused on the vision and recommendations of the National Education Policy (NEP) for higher education. Various aspects including multidisciplinary education, academic flexibility, multiple entry and exit options, skill development, experiential learning, digital education, and research orientation were discussed. Participants explored strategies for incorporating NEP recommendations into engineering curricula. The importance of holistic development and lifelong learning was emphasized. Faculty gained clarity on curriculum reforms aligned with NEP.



Prof C.V Krishna Reddy, Director, NNRG, delivering talk on NEP

Day-1: 25 April 2022 (2:00 pm-4:00 pm)

Session 3: Alignment of Curriculum with Institutional Vision and Mission

Resource Person: Prof C.V Krishna Reddy, Director, NNRG

The resource person explained the importance of aligning curriculum with the institution's Vision and Mission. Faculty members learned how Program Educational Objectives and curriculum components should support institutional goals and societal needs. The session discussed strategies for ensuring consistency between departmental objectives and institutional aspirations. Participants understood the importance of regular curriculum review for maintaining strategic alignment. The session highlighted the contribution of curriculum alignment towards institutional excellence and accreditation.

Day-2: 26 April 2022 (9:15 am-11:00 am)

Session 4: Curriculum Framework Design and Structure

Resource Person: Dr T Kishore Kumar, Senior Professor, NIT Warangal

The session presented the systematic framework for designing a balanced curriculum. Faculty discussed curriculum components such as foundation courses, professional core courses, electives, laboratory courses, projects, internships, and value-added courses. Credit distribution, progression of learning, flexibility, and interdisciplinary learning were also addressed. Practical examples illustrated effective curriculum organization. Participants understood the importance of designing student-centric and industry-relevant curricula.



Dr T. Kishore Kumar, Senior Professor, NIT Warangal, delivering talk on Curriculum Framework Design and Structure

Day-2: 26 April 2022 (11:10 am-1:15 pm)

Session 5: Curriculum Development Process

Resource Person: Dr T Kishore Kumar, Senior Professor, NIT Warangal

The resource person explained the complete process of curriculum development and revision. The session covered need analysis, stakeholder consultation, benchmarking, curriculum drafting, approval mechanisms, implementation, and periodic review. Faculty understood the importance of documentation at every stage of curriculum development. Practical discussions highlighted

methods of ensuring curriculum relevance and quality. The session encouraged systematic curriculum planning aligned with NBA expectations.

Day-2: 26 April 2022 (2:00 pm-4:00 pm)

Session 6: National and Global Curriculum Benchmarks

Resource Person: Prof G Janardhana Raju, Dean-SoE, NNRG

This session highlighted benchmarking as an essential practice for curriculum improvement. Faculty explored curriculum frameworks of premier institutions along with AICTE, UGC, NBA, industry standards, and international universities. Emerging technologies and global educational trends were discussed for curriculum enrichment. Participants learned methods for comparing curricula and identifying improvement opportunities. The session emphasized continuous curriculum enhancement through benchmarking.

Day-3: 27 April 2022 (9:15 am-11:00 am)

Session 7: Designing Program Educational Objectives (PEOs), Program Outcomes (POs), and Program Specific Outcomes (PSOs)

Resource Person: Dr Ramesh, IQAC Convener, NNRG

Faculty members learned systematic procedures for designing measurable PEOs, POs, and PSOs aligned with graduate attributes and stakeholder expectations. The relationship between institutional vision, program objectives, and graduate competencies was explained. Practical examples enabled participants to formulate well-defined outcomes. The importance of periodic review and stakeholder participation was emphasized. Participants gained confidence in designing outcome statements.

Day-3: 27 April 2022 (11:10 am-1:15 pm)

Session 8: Formulating Measurable Course Outcomes (COs)

Resource Person: Dr Ramesh, IQAC Convener, NNRG

The session focused on writing measurable Course Outcomes using appropriate action verbs. Faculty learned techniques for defining observable learning outcomes aligned with course content

and program outcomes. Practical exercises enabled participants to draft COs for theory and laboratory courses. Common mistakes in writing COs were discussed. The session strengthened faculty competency in outcome-based course planning.

Day-3: 27 April 2022 (2:00 pm-4:00 pm)

Session 9: Application of Revised Bloom's Taxonomy in Curriculum Design

Resource Person: Prof G Janardhana Raju, Dean-SoE, NNRG

The session introduced the cognitive domain of Revised Bloom's Taxonomy and its application in curriculum design. Participants understood how action verbs corresponding to different cognitive levels support measurable learning outcomes. Faculty practiced developing COs and assessment questions covering all cognitive levels. The session emphasized promoting higher-order thinking skills through curriculum design. Practical examples enhanced participants' understanding.

Day-4: 28 April 2022 (9:15 am-11:00 am)

Session 10: CO-PO-PSO Mapping Techniques and Methodologies

Resource Person: Dr Ramesh, IQAC Convener, NNRG

The resource person explained various approaches for mapping Course Outcomes with Program Outcomes and Program Specific Outcomes. Faculty learned mapping scales, correlation levels, and documentation procedures required for NBA accreditation. Practical demonstrations illustrated preparation of CO-PO matrices and justification reports. Participants appreciated the importance of systematic mapping for outcome attainment. The session enhanced faculty skills in academic documentation.

Day-4: 28 April 2022 (11:10 am-1:15 pm)

Session 11: Assessment Methods and Outcome Attainment Analysis

Resource Person: Dr G Mallikarjuna Rao, SC-Group Director, DRDO

This session focused on direct and indirect assessment methods used for measuring learning outcomes. Faculty explored assessment tools such as examinations, assignments, quizzes, laboratory evaluations, projects, surveys, and employer feedback. Methods of calculating CO and

PO attainment were demonstrated using sample data. Gap analysis and improvement planning were also discussed. Participants gained practical knowledge of outcome attainment analysis.

Day-4: 28 April 2022 (2:00 pm-4:00 pm)

Session 12: Integrating Employability Skills, Innovation, Entrepreneurship, Human Values, and Professional Ethics into Curriculum

Resource Person: Dr G Mallikarjuna Rao, SC-Group Director, DRDO

The session emphasized preparing graduates for professional success through curriculum integration of employability skills and emerging competencies. Faculty discussed methods for embedding communication skills, teamwork, innovation, entrepreneurship, ethics, environmental consciousness, and human values into courses. Industry expectations and project-based learning approaches were highlighted. Participants understood the significance of holistic education. The session encouraged value-based curriculum design.



Dr G Mallikarjuna Rao, SC-Group Director, DRDO, delivering talk on Employability Skills

Day-5: 29 April 2022 (9:15 am-11:00 am)

Session 13: Stakeholder Participation in Curriculum Development

Resource Person: Dr P.A Harshavardhini, Professor, VITS

The session highlighted the importance of collecting feedback from stakeholders during curriculum design and revision. Faculty identified key stakeholders including industry experts, alumni, employers, students, parents, and professional bodies. Methods for conducting surveys, meetings, advisory board discussions, and feedback analysis were explained. Participants learned how stakeholder inputs improve curriculum quality and relevance. The session reinforced collaborative curriculum development.

Day-5: 29 April 2022 (11:10 am-1:15 pm)

Session 14: Roles and Responsibilities of Academic Bodies

Resource Person: Dr P.A Harshavardhini, Professor, VITS

The session explained the responsibilities of various academic committees involved in curriculum governance. Faculty understood the functions of the Board of Studies, Academic Council, IQAC, Department Advisory Committee, Examination Committee, and Governing Body. The approval workflow for curriculum revision was discussed in detail. Quality assurance and academic accountability were emphasized. Participants gained clarity regarding institutional governance mechanisms.

Day-5: 29 April 2022 (2:00 pm-3:00 pm)

Session 15: Curriculum Implementation, Continuous Quality Improvement (CQI), and NBA Compliance

Resource Person: Dr Ramesh, IQAC Convener, NNRG

The concluding session focused on successful curriculum implementation and the Continuous Quality Improvement (CQI) cycle. Faculty learned methods for monitoring curriculum delivery, evaluating outcome attainment, identifying gaps, implementing corrective actions, and documenting improvements. NBA compliance requirements, evidence collection, and best practices for accreditation were discussed extensively. Participants understood that CQI is a continuous process that sustains academic excellence and institutional quality.

The valedictory session was presided over by **Prof. C.V Krishna Reddy, Director, NNRG**. Participants shared their learning experiences and appreciated the efforts of the organizing committee. The Director congratulated the faculty members for their enthusiastic participation and encouraged them to implement the concepts learned during the workshop in their respective departments.

Outcomes of the Workshop

At the end of the workshop, the participants were able to:

- Faculty members acquired practical knowledge of OBE, NEP, curriculum design, assessment, and CQI practices.
- Participants developed skills in framing measurable outcomes, CO–PO mapping, and outcome attainment analysis for effective curriculum implementation.
- The workshop enhanced faculty competency in designing, implementing, and continuously improving student-centric and industry-relevant curricula.

Workshop Co-Coordinator



Mr A. Gopal, Assoc. Prof

Workshop Coordinator



Prof. P. Sreenivasa Reddy, HOD, ECE