Addressing Sustainable Development Goals through Engineering Education: An Example

Kanmani Buddhi
BMS College of Engineering
Bengaluru - INDIA

the learning ideas conference

Conference Proposals

2025 Conference Program

Online-Only Days: Wednesday, May 28th | Thursday, May 29th

Hybrid Days: Wednesday, June 11th | Thursday, June 12th | Friday, June 13th

TRACK 4 (ONLINE) - SESSION 4D

Session Chair: Fariba Moghaddam, Ph.D., University of Applied Sciences Western Switzerland, Sion, Switzerland

10:15 AM - 10:45 AM



Addressing Sustainable Development Goals through Engineering Education: An Example

Kanmani Buddhi, Ph.D., BMS College of Engineering, Bengaluru, Karnataka, India

In this work we present an example for addressing the Sustainable Development Goals through Engineering Education. In India, engineering education is governed by guidelines from the AICTE (All India Council for Technical Education), the UGC (University Grants Commission) and the NEP (National Education policy 2020). Engineering Institutions in India are broadly classified as Tier-I (institutions with academic autonomy), and Tier – II (institutions with affiliation to a University). Programs effectively addressing the guidelines together with well-defined pedagogy, assessments to address the attributes of the 21st century are accredited by NBA (National Board of Accreditation). The guidelines provide broad framework for credits to be earned for the award of degree; a suggested framework for credit distribution among various curricular components: Basic Science Courses; Basic Engineering Courses; Program Core Courses; Program Elective Courses; Humanities and Social Sciences; Projects, Internships and Seminars; Ability Enhancement Courses; and mandatory non-credit courses.

Engineering Education in India

WASHINGTON ACCORD

WASHINGTON ACCORD

> SIGNATORIES

EXECUTIVE COMMITTEE

HOW TO APPLY

2014

SIGNATORIES

SIGNATORIES HAVE FULL RIGHTS OF PARTICIPATION IN THE ACCORD

Qualifications accredited or recognized by other signatories are recognised by each signatory as being substantially equivalent to accredited or recognised qualifications within its own jurisdiction.

- → Korea Represented by Accreditation Board for Engineering Education of Korea (ABEEK) (2007)
- → Russia Represented by Association for Engineering Education of Russia (AEER) (2012)
- → Malaysia Represented by Board of Engineers Malaysia (BEM) (2009)
- → China Represented by China Association for Science and Technology (CAST) (2016)
- → South Africa Represented by Engineering Council South Africa (ECSA) (1999)
- → New Zealand Represented by Engineering New Zealand (EngNZ) (1989)
- → Australia Represented by Engineers Australia (EA) (1989)
- → Canada Represented by Engineers Canada (EC) (1989)
- → Ireland Represented by Engineers Ireland (EI) (1989)
- → Hong Kong China Represented by The Hong Kong Institution of Engineers (HKIE) (1995)
- → Chinese Taipei Represented by Institute of Engineering Education Taiwan (IEET) (2007)
- → Singapore Represented by Institution of Engineers Singapore (IES) (2006)
- → Sri Lanka Represented by Institution of Engineers Sri Lanka (IESL) (2014)
- → Japan Represented by JABEE (2005)
- → India Represented by National Board of Accreditation (NBA) (2014)

The National Board of Accreditation represents India





ABOUT

ACCREDITATION

APPLYING FOR ACCREDITATION

ACCREDITED PROGRAMS

PUBLICATIONS

WOSA

WORKSHOPS

VISION AND MISSION

Home / About Us / Vision and Mission

ABOUT US

- Introduction
- Vision and Mission
- Objectives
- Organizational Structure
- Major Milestones
- MoA



O VISION

To be an accrediting agency of international standard by ensuring the highest degree of credibility in assurance of quality and relevance to professional education and come up to the expectations of its stakeholder's viz., academicians, corporates, educational institutions, government, industry, regulators, students and their parents.



MISSION

To stimulate the quality of teaching, self-evaluation and accountability in the higher education system, which help institutions realize their academic objectives and adopt teaching practices that enable them to produce high-quality professionals and to assess and accredit the programs offered by the institutions imparting technical and professional education.

The Graduate Attributes (GAs) defined by Washington Accord

The Program Outcomes (POs)

defined by the

National Board of Accreditation

The Program Outcomes for Engineering

	Program Outcomes (POs)
PO1	Engineering Knowledge
PO2	Problem Analysis
PO3	Design/Development of Solution
PO4	Conduct Investigations of Complex Problems
PO5	Engineering Tool Usage
PO6	The Engineer and The World
PO7	Professional Ethics
PO8	Individual and Team work
PO9	Communicate Effectively
PO10	Project Management and Finance
PO11	Life-Long Learning

Effective from July 2024

Knowledge and Attitude Profile (WK)

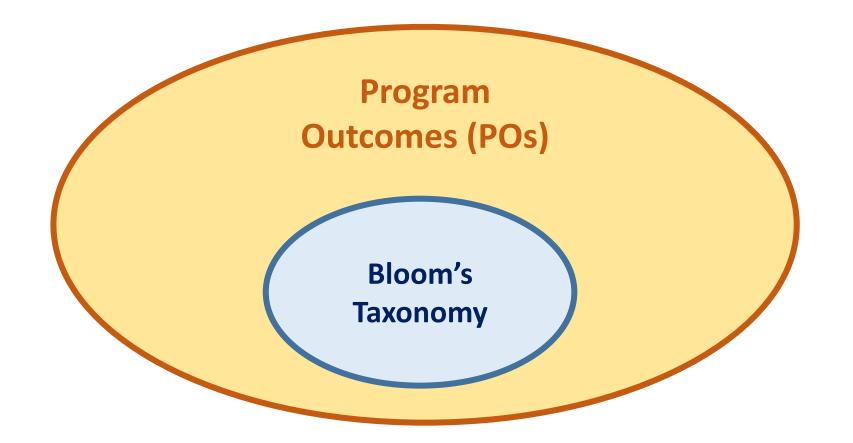
	Till of the age and title age in the first
WK1	A systematic, theory-based understanding of the natural sciences applicable to the discipline and awareness of relevant social sciences
WK2	Conceptually-based mathematics, numerical analysis, data analysis, statistics and formal aspects of computer and information science to support detailed analysis and modelling applicable to the discipline
WK3	A systematic, theory-based formulation of engineering fundamentals required in the engineering discipline
WK4	Engineering specialist knowledge that provides theoretical frameworks and bodies of knowledge for the accepted practice areas in the engineering discipline; much is at the forefront of the discipline
WK5	Knowledge, including efficient resource use , environmental impacts, whole-life cost, re-use of resources, net zero carbon, and similar concepts, that supports

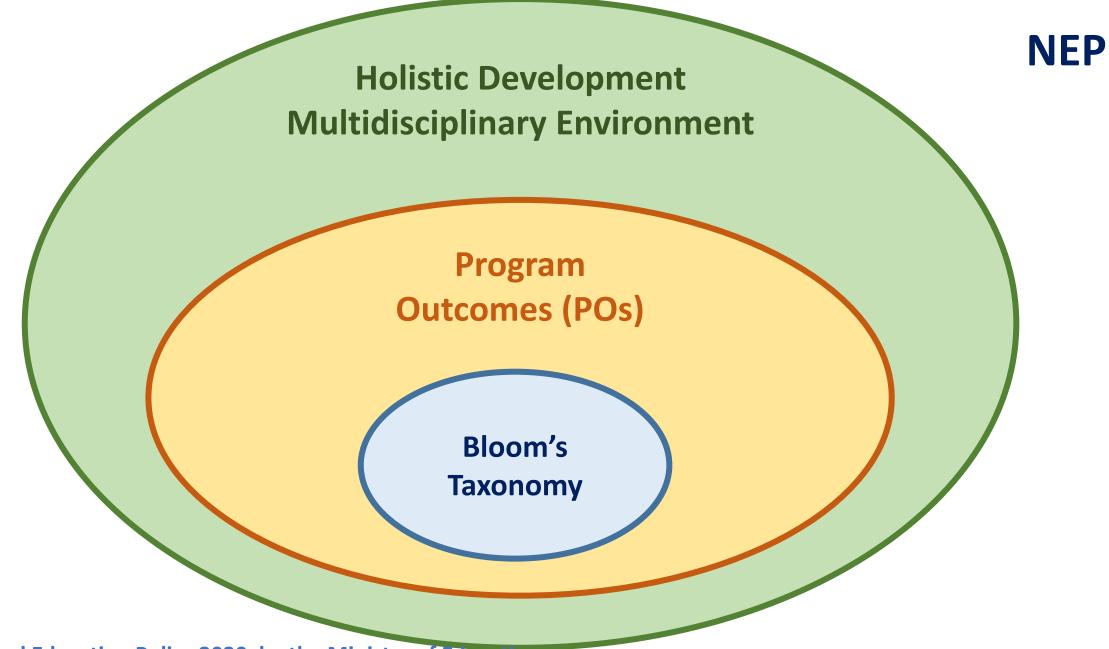
engineering design and operations in a practice area

Knowledge and Attitude Profile (WK) Knowledge of engineering practice (technology) in the practice areas in the WK6 engineering discipline Knowledge of the role of engineering in society and identified issues in engineering practice in the discipline, such as the professional responsibility of an WK7 engineer to public safety and sustainable development Engagement with selected knowledge in the current research literature of the WK8 discipline, awareness of the power of critical thinking and creative approaches to evaluate emerging issues Ethics, inclusive behavior and conduct. Knowledge of professional ethics, responsibilities, and norms of engineering practice. Awareness of the need for WK9 **diversity** by reason of ethnicity, gender, age, physical ability etc. with mutual understanding and respect, and of inclusive attitudes

25 years of Washington Accord

OBE





The National Education Policy 2020, by the Ministry of Education, https://www.mhrd.gov.in/sites/upload_files/mhrd/files/NEP_Final_English_0.pdf

The Curriculum Parameters for Curriculum Design

Parameters for Curriculum Design

ABET
Program
Specific
Criteria

Global Engineer Attributes 21st Century Skills

NBA Program Outcomes AICTE Model Curriculum

NEP 2020 Holistic development

GATE Syllabus Program Educational Objectives (PEOs)

Suggestions by Stakeholders

www.isteonline.in

202

21 st Century Skills				
S1	Critical Thinking			
S2	Cognitive Flexibility			
S3	Creativity			
S4	Coordinating with others			
S5	Negotiation			
S6	Complex Problem solving			
S7	Decision Making			
S8	Service orientation			
S9	Emotional Intelligence			
S10	People Management			



Program Specific Criteria (PSC)

Engineering Accreditation Commission

CRITERIA FOR ACCREDITING

ENGINEERING PROGRAMS

AICTE-Model Syllabus

https://www.aicte-india.org/education/model-syllabus

Code	Curricular Component	Typical distribution
PCC	Professional Core Course	30%
PEC	Professional Elective Course	11%
BSC	Basic Science Course	16%
ESC	Engineering Science Course	15%
OEC	Institute Elective Course	11%
HSMC	Humanities and Social Sciences, including Management Course	8%
PRJ/ SMR	Projects, Mini-projects, Seminar, Internships	9%
NCMC	Non-Credit Mandatory Course	-

GATE Syllabus

- GATE Syllabus part of Curriculum (Percentage)
- GATE type of questions part of internal assessment

NEP 2020

- Multidisciplinary Component
- Holistic Education
- Projects through Open Electives
- Open Electives Beyond Engineering

Program Specific Outcomes (PSOs) Electronics and Telecommunication Engineering Program

PSO1 - Build Electronic Systems: formulate the problem, design, implement, analyze and demonstrate a feasible solution to the problem, using suitable electronic components

PSO2 - Build Telecommunication Systems: design, implement, analyze and demonstrate the telecommunication system to receive and(or) transmit signals through the specified channel

PSO3 - **Simulate Systems:** Develop, test, analyze and demonstrate algorithms to simulate Electronic systems / Telecommunication systems / Networking protocols using the specified Engineering Tool for services such as voice, data, image, and video transport

PSO4 - Holistic Personality: Demonstrate research skill, entrepreneurial skill, written & oral communication skills, interpersonal skills, and negotiation skills together with the right emotional quotient and compliance to professional norms

Typical Semester Articulation Matrix (SAM)

Course	1	2	3	4	5	6	7	8	9	10	11
Course-1	3	3	3	2	3						
Course-2	3	3		2	3						
Course-3	3	3	2			1	1	1	1		1
Course-4	3	2						1	1	1	1
Course-5	3	3	1		1	1	1	1		1	1
Course-6	3	3	1		1	1	1	1		1	1
Non-Credit						✓	✓				

Contribution from every semester, results in the Program Articulation Matrix

Successful implementation of OBE

Effective OBE leads to improvement in student performance:

- Enhanced on-campus placements
- Enhanced Core-placements
- Enhanced off-campus placement
- Enhanced pay package
- Enhanced higher education
- Enhanced entrepreneurs
- Enhanced publications
- Enhanced awards (National/International competitions)
- Enhanced performance in competitive examinations (GATE/CAT/IES)

Improvement in Student Performance
Leads to Improvement in Peer Perception
Leads to Improvement in quality of Students admitted
Further improvement in Student Performance

Additional Components: Engineering Education

The AICTE guidelines:

Additional requirements
Beyond the Credit Structure

• The Induction Program (Three weeks)

The Activity Points

Guidelines for the Induction Program for Undergraduate Engineering students https://www.aicte-india.org/sites/default/files/Detailed%20Guide%20on%_20Student%20Induction%20program.pdf

Guidelines for Internships during semester breaks, https://aicte-india.org/sites/de-fault/files/AICTE%20Internship%20Policy.pdf

The Three week Induction Program

Typical Activities during Induction Program:

- Considering the diversity in students joining the program
- Introduce the local Culture
- Bridge the gap (Language/ Computing Skills/ Mathematics Skills)
- Visit to local places
- Visit to the department
- Interaction with distinguished alumni
- Emotional quotient, Health

Carefully designed
Ensure a successful journey
For every student
By Senior students

Engineering Students need to earn 100 Activity Points

The suggested Plan for earning activity points:

- The points are earned during semester breaks
- 20 Activity points for 80 to 90 hours of association
- Maximum 20 activity points under a component
- Students to earn from any five of the fifteen activities listed
- The student may choose any activities as per their liking in order to earn the AICTE Activity points

THE SUSTAINABLE DEVELOPMENT GOALS





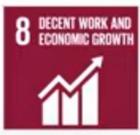
































The Sustainab	le Devel	opment	Goals	(SDGs)

SDG1	No Poverty: End poverty in all its forms everywhere
SDG2	Zero Hunger: End Hunger, achieve food security and improved nutrition and promote sustainable agriculture
SDG3	Good Health and well-being: Ensure healthy lives and promote well-being for all at all ages
SDG4	Quality Education: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
SDG5	Gender equality: Achieve gender equality and empower all women and girls
SDG6	Clean water and sanitation: Ensure availability and sustainable management of water and sanitation for all

https://sdgs.un.org/goals

The Sustainable Development Goals (SDGs)

SDG7	Affordable and clean energy: Ensure access to affordable, reliable, sustainable and modern energy for all
SDG8	Decent work and economic growth: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
SDG9	Industry, Innovation and Infrastructure: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
SDG10	Reduced inequalities: Reduce inequality within and among countries
SDG11	Sustainable cities and communities: Make cities and human settlements inclusive, sage, resilient and sustainable
SDG12	Responsible consumption and production: Ensure sustainable consumption and production patterns

https://sdgs.un.org/goals

The Sustainable Development Goals (SDGs)

SDG13 Climate Action: Take urgent action to combat climate change and its impacts **Life below water:** Conserve and sustainably use the oceans, seas and marine SDG14 resources for sustainable development **Life on Land:** Protect, restore and promote sustainable use of terrestrial **SDG15** ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss Peace Justice and Strong Institutions: Promote peaceful and inclusive **SDG16** societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels Partnerships for the Goals: Strengthen the means of implementation and SDG17 revitalize the Global Partnership for Sustainable Development

https://sdgs.un.org/goals

The AICTE Activity Points: Suggested Activities

Activity 1	Prepare and implement plan to create local job opportunities	SDG1 SDG8
Activity 2	Prepare and implement plan to improve education quality in village	SDG4
Activity 3	Prepare an actionable DPR for Doubling the village Income	SDG1 SDG8
Activity 4	Developing Sustainable Water Management system	SDG6
Activity 5	Prepare and Improve a plan to improve health parameters of villagers	SDG3 SDG11

The AICTE Activity Points: Suggested Activities

Activity 6	Developing and implementing of Low Cost Sanitation facilities	SDG3 SDG12
Activity 7	Prepare and implement plan to promote Local Tourism through Innovative Approaches	SDG8 SDG11
Activity 8	Implement/Develop Technology solutions which will improve quality of life	SDG8 SDG9
Activity 9	Prepare and implement solution for energy conservation	SDG7 SDG12
Activity 10	Prepare and implement plan to Skill village youth and provide employment	SDG8

The AICTE Activity Points: Suggested Activities	ivity Points: Suggested Activities
---	------------------------------------

The Alcie Activity Politis. Suggested Activities				
Activity 11	Develop localized techniques for Reduction in construction Cost	SDG11 SDG12		
Activity 12	Prepare and implement plan of sustainable growth of village	SDG9 SDG11		
Activity 13	Setting of Information imparting club for women leading to contribution in social and economic issues	SDG5 SDG10		
Activity 14	Developing and managing Efficient garbage disposable system	SDG9 SDG11		
Activity 15	Contribution to any national level initiative of Government of India. For eg. Digital India/ Skill India/ Swachh Bharat Internship etc	SDG4		

Ref: ACITE Internship Policy 31

Addressing the SDGs: National Level

The AICTE guidelines:

- The Activity Points
- Earn the 100 Activity points

The Accreditation Criteria

- Institutional Level accreditation, NAAC (National Assessment and Accreditation Council)
- Program Level Accreditation, NBA (National Board of Accreditation)

Addressing the SDGs: Institutional Level

Through Activities on Campus

- Green Energy
- Waste Management
- Preserving water
- Net zero
- Quality Education
- R&D Activities
- Entrepreneurial Activities
- Outreach Activities

Emphasized in Criteria 9.11 of the NBA Accreditation Document

National Board of Accreditation (NBA), for promoting International quality standards for Technical Education in India, https://www.nbaind.org/

Addressing the SDGs: Program Level

Through Courses of the Curriculum

- Complex Engineering Problems
- Exclusive Projects
- Course Projects
- Course Seminars
- Includes Courses like (with emphasis on SDGs):
 - Indian Knowledge Systems
 - Universal Human Values

Emphasized in Criteria 2.6 and 3.7

of the NBA Accreditation Document

Stream

Classwork

People

Grades



Kanmani B Nov 26, 2024

Please find attached the details of SDGs and Activity points for reference.

- 1. This is towards your AAT for SSA
- 2. The presentation shall include:
- (i) Name, USN and Photograph of team members
- (ii) Proposed plan of earning 100 activity points of each team member
- (iii) mapping of each planned activity to the SDGs
- (iv) Proposed application of SSA concept for society (health care/entertainment/ communication/ agriculture/ education/ any other)
- (v) Mapping of the proposed application of SSA to SDG

NOTE: This is purely part of the AAT of SSA.

Actual monitoring of your Activity points is by your Proctors.

III Semester Course on Analog Signal Processing

- Application, map to SDGs
- Proposed plan of Activity Points

Classwork

Grades

People

Evaluation Pattern:

Stream

B1 to Evaluate B2

B2 to evaluate B3

B3 to evaluate B4

B4 to evaluate B1

Time is 3 to 5 minutes per Batch

Evaluation shall be on:

Clarity of presentation

Slide clarity

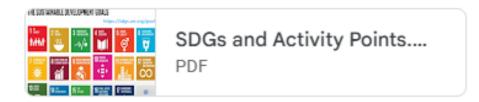
Relevance of content and mapping

Overall presentation quality

Dead line is 2nd December. (already postponed by 3 days).

Hence, no further postponement of deadline

Also ensure no overlap in seminar/application topics



III Semester Course on

- Peer Evaluation Component
- Analog Signal Processing



Stream

Classwork

People

Grades



Kanmani B May 14

With regard to AAT for Theory (5 Marks)

IV Semester Course on

Digital Signal Processing

- Application, map to SDGs
- Submit a video presentation

Record an application of DSP (in health care/ agriculture/ entertainment/ power/ any other)

Duration is maximum 3 minutes

Individual PPT

Map the application presented to the SDG

The PPT shall include Name, USN, Video recording,

Deadline for submission of both above tasks is 22 May

Social Work/ Contribution to Society

A Personal thought

Include support at home
The home is the smallest entity of society
Happy and prospering homes
Sustainable Communities
Incorporate into the Teaching Learning Process

The Success of Education Process

- Improvement in Student performance
- Acceptance by Industry
- Enhanced Placements
- Successful Entrepreneurs
- National/International- Awards
- Publications
- Succeed in Competitive Examinations
- Life-long Learners
- Socially responsible citizens

Additional Parameters

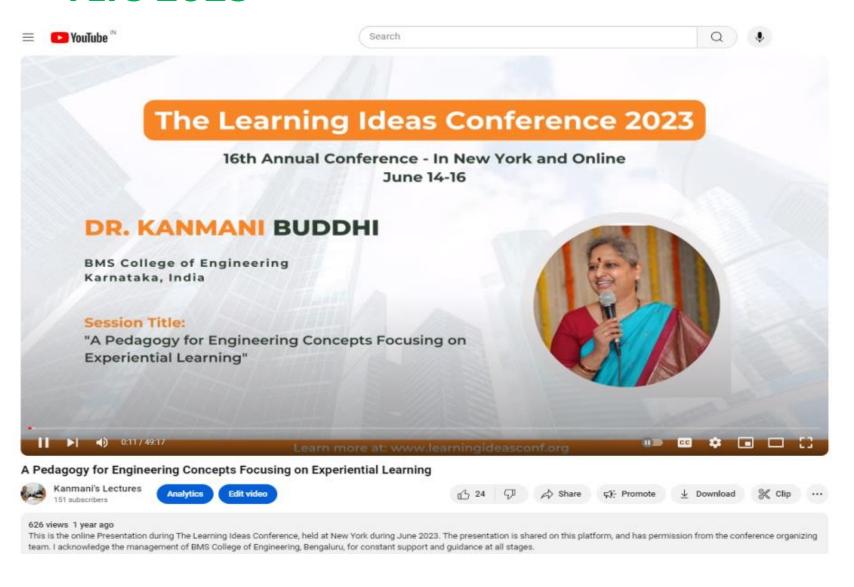
- Support the Parents/Grandparents
- Happy and Successful Families

Reduction in

- Old Age Homes
- Counseling Centers

The Learning Ideas Conference Team

- Abstract of the Talk
- Submission of Paper optional
- Review Process
- The presentation, uploaded on YouTube



Chapter 8:

A Pedagogy for
Engineering Concepts
Focusing on Experiential
Learning.

In: Guralnick, D., Auer, M.E.,
Poce, A. (eds) Creative
Approaches to TechnologyEnhanced Learning for the
Workplace and Higher
Education. TLIC 2023. Lecture
Notes in Networks and Systems,
vol 767. Springer, Cham.
https://doi.org/10.1007/978-3-031-41637-8 8

A Pedagogy for Engineering Concepts Focusing on ...

YouTube · Kanmani's Lectures · 15 Jul 2023



0:00	Introduction	
		Time Lines

- 4:00 The Usual Pedagogy
- 10:20 Memorable Moments
- 11:30 About IUCEE
- 14:28 IEEE Signals and Systems Concepts Inventory
- 19:27 Outcome Based Education (OBE)
- 23:24 **Online Teaching** (experience during Pandemic)
- 25:00 Negative Feedback on PPT
- 30:40 **Experiential Learning** (Fourier Series ;
 - Sampling Theorem; Central Limit Theorem)
- 38:42 Student Survey
- 40:43 Conclusions
- 44:00 Acknowledgements
- 47:44 Concluding Remarks



Chapter 5:

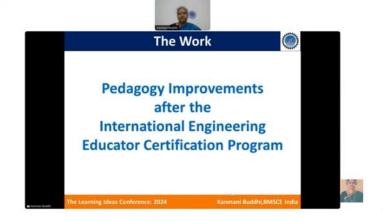
Buddhi, K. (2024).

Pedagogy Improvements
After the International
Engineering Educator
Certification Program.

In: Guralnick, D., Auer, M.E., Poce, A. (eds) Creative Approaches to Technology-Enhanced Learning for the Workplace and Higher Education. TLIC 2024. Lecture Notes in Networks and Systems, vol 1150. Springer, Cham. https://doi.org/10.1007/978-3-031-72430-5 5

Pedagogy Improvements after the International Engineering \dots

▶ YouTube · Kanmani's Lectures · 12 Aug 2024



The video is	a bit long (45 Minutes)	
The timeline	es of the video are: Time Lines	
Initial 10 sed	conds - Blank	
0:10	Introduction by Session Chair	
1:25	Start of the presentation	
3:15	About the IIEECP course	
9:00	Engineering Education in India	
11:00	About BMS College of Engineering	
15:00	Design of the Signal Processing Course Content	
20:00 Improvements in Pedagogy		
	(i) Defining COs (21:18)	
	(ii) Pre-Test (23:25	
	(iii) Office Hour (26:00)	
	(iv) Activity Based Delivery (26:44)	
	(v) The Laboratory Component (33:00)	
	(vi) Self-Evaluation by Students (38:00)	
	(vii) Contribution to POs (39:00)	
40:00	Reflections	
42:00	Interoperability of Python and Matlab	
45:00	Summary of the session	

YouTube Video: https://youtu.be/r4l28YYX9gw?si=CA6clZJ4WBn1sxjO

SPRINGER NATURE Link

The Book is Sponsored by ABET and CTI Published November 2024

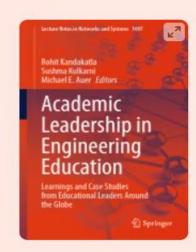
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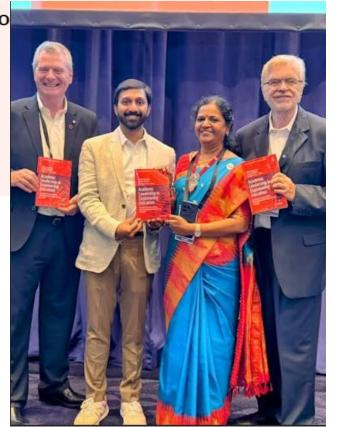
Academic Leadership in Engineering Education

Learnings and Case Studies from Educational Leaders Around the Glo

Book | Dec 2024

The Book was formally released during WEEF 2024, Sydney, Australia, December 2, 2024

Acknowledgements to the Editors For sharing this memorable moment



Chapter 3:

Establishing and maintaining operational systems and processes that meet international quality standards

- S.A. Rajala, President-Elect, Board of Directors and Chair, Global Council, ABET, USA
- **D. lacona, Director, International Engagement and Governance, ABET, USA**
- M.I. Ruiz Cantasani, Liaison and Training Partners Director, School of Engineering and Sciences, Tecnologico de Monterrey, **Mexico**
- V. Lara-Prieto, National Head of Higher Education, School of Engineering and Sciences, Tecnologico de Monterrey, Mexico
- **BMS** College of **B. Kanmani**, Department of Electronics and Telecommunication Engineering, Engineering, India

Rajala, S.A., Iacona, D., Ruiz-Cantisani, M.I., Lara-Prieto, V., Kanmani, B. (2025). Establishing and Maintaining Operational Systems and Processes that Meet International Quality Standards. In: Kandakatla, R., Kulkarni, S., Auer, M.E. (eds) Academic Leadership in Engineering Education. Lecture Notes in Networks and Systems, vol 1097. Springer, Cham. https://doi.org/10.1007/978-3-031-68282-7_3

Chapter 6: Transformation to Outcome Based Education

Prakash Tewari, KLE Technological University, India

B. Kanmani, Department of Electronics and Telecommunication Engineering, BMS College of Engineering, India

David Knight, Department of Engineering Education, Virginia Tech, USA

Marlene Kanga, Former President World Federation of Engineering Organizations Australia

Tewari, P., Kanmani, B., Knight, D., Kanga, M. (2025).

Transformation to Outcomes Based Education.

In: Kandakatla, R., Kulkarni, S., Auer, M.E. (eds) Academic Leadership in Engineering Education. Lecture Notes in Networks and Systems, vol 1097. Springer, Cham.

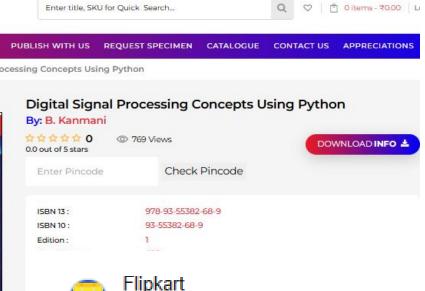
https://doi.org/10.1007/978-3-031-68282-7 6



- Indian Institute of Technology, Ghandhinagar
- Faculty Development Program on 'Data Science and Analytics',
 during January 2021, for two weeks and sponsored by TEQIP
- In two weeks online course, the team introduced us to both Data Science and Python

Participant of this Course





'Digital Signal Processing Concepts using Python', **B Kanmani: ISTE-WPLP Learning Material series with** specialization in, 'Electronics and Communication', from the Indian Society for Technical Education, (An AICTE Project), published by Khanna Book Publishing Co. (P) Ltd., New Delhi, First

Edition 2023; Reprint 2024; ISBN 978-93-5538-268-9; (Also available as e-Book)



https://www.flipkart.com > digital-signal-processing-co...

Digital Signal Processing Concepts Using Python

Khanna Publishers Digital Signal Processing Concepts Using Python (English, Paperback, Kanmani B. Kanmani); Sponsored. Rrb Combined Question Bank. 549. ₹538. 2% ...

₹575 00 · In stock



Khanna Books

https://khannabooks.com > All books

Digital Signal Processing Concepts Using Python

Description. CHAPTER 1: Digital Signals. CHAPTER 2: The Sampling Process. CHAPTER 3: Classification of Digital Systems.

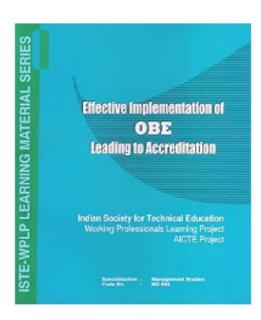
National Board of Accreditation

- Conducted Training Programs on Outcomes Based Education
- World Summit on Accreditation (WOSA) by NBA

Indo Universal Collaboration for Engineering Education

- Global experts to our classrooms
- Global experts to our campus
- Since 2009
- Conference
- Journals
- Training Programs
- GotoMeeting platform
- Smooth transition during pandemic





Roll over image to zoom in

Effective Implementation Of OBE Leading to Accreditation



Initially published by

ISTE-WPLP

Paperback – 1 January 2024

by B. Kanmani (Author)

See all formats and editions

January 2020



Amazon.in

https://www.amazon.in > Effective-Implementation-OB...

Effective Implementation Of OBE Leading to Accreditation

Kanmani. Effective Implementation Of OBE Leading to Accreditation. 1 January 2024. ISBN-13: 978-9355383976 ISBN-10: 9355383975. 20% off. Effective ...



Khanna Publishing House

https://khannabooks.com > All books

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https://www.flipkart.com > effective-implementation-ob...

Effective Implementation Of OBE Leading to Accreditation

KHANNA BOOK PUBLISHING Effective Implementation Of OBE Leading to Accreditation (Paperback,

B. Kanmani). 4.3. Seller rating.



BMS College of Engineering

- The Management
- Professional environment for individual growth
- Every Stakeholder can nurture and pursue his/her passion
- Every student I have taught
- All my colleagues

Proud to be a member of the BMS Family

B.M.S. College of Engineering



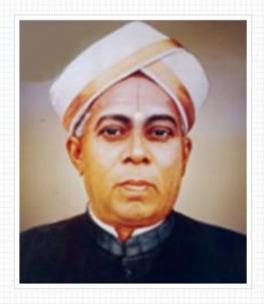
Established 1946

Bengaluru - 560 019 Karnataka State INDIA

https://bmsce.ac.in/

B.M.S. College of Engineering

ABOUT US ACADEMICS ADMISSIONS RESEARCH INNOVATION SKILL LABS COE TEQIP FACILITIES PLACEMENTS



LATE SRI.
B.M.SREENIVASAIAH

Founder B.M.S. Educational Trust

https://www.bmsce.ac.in/



Donor Trustee B.M.S. Educational

Trust

The Visionaries

B.M.S. College of Engineering (BMSCE) was Founded in the year 1946 by Late Sri. B. M. Sreenivasaiah a great visionary and philanthropist and nurtured by his illustrious son Late Sri. B. S. Narayan. BMSCE is the first private sector initiative in engineering education in India. BMSCE has completed 70+ years of dedicated service in the field of Engineering Education. Started with only 03 undergraduate courses, BMSCE today offers 13 Undergraduate & 16 Postgraduate courses both in conventional and emerging areas.

KNOW MORE

Established 1946

B.M.S. College of Engineering

Vision

Promoting Prosperity of mankind by augmenting Human Resource Capital through Quality Technical Education & Training.

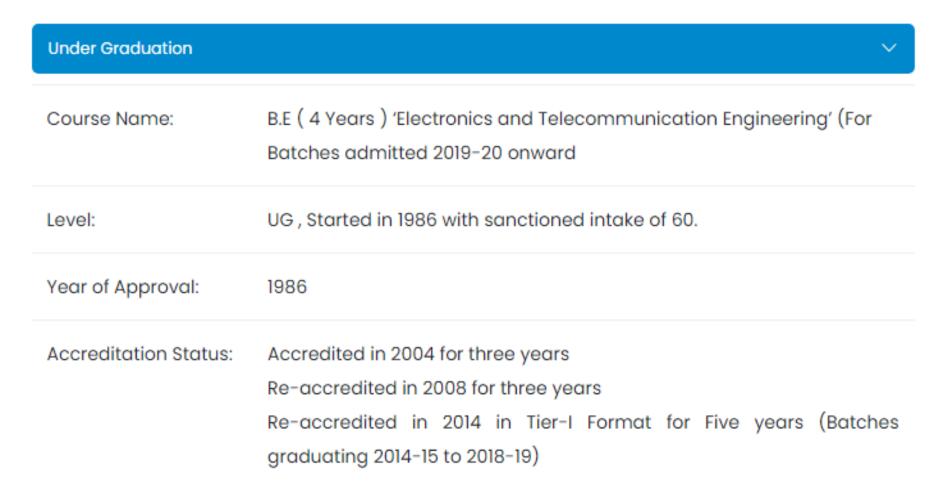
Mission

Accomplish Excellence in the field of Technical Education through Education, Research and Service needs of society.



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Electronics and Telecommunication Engineering



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About Organizational Structure Programmes Syllabus Faculty Staff Alumni

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Established 1986

- BMS College of Engineering
- National Board of Accreditation
- IUCEE

Personal Understanding

Kanmani Buddhi Outcome based Education

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Kanmani Buddhi is a professor at the Department of Electronics and Communication Engineering at BMS College of Engineering, Bengaluru, and a researcher with publications and lectures on Outcome-Based Education (OBE). OBE is an educational approach that focuses on clearly defined learning outcomes and how those outcomes are achieved.

Elaboration:

Kanmani Buddhi's Work:

Dr. Buddhi has written a book on "Effective Implementation of OBE leading to Accreditation" and has uploaded lectures on "Digital Signal Processing" and "Outcome Based Education" on her YouTube channel, "Kanmani's Lectures".

Implementation of OBE:

India has been implementing OBE in higher technical education, including diploma and undergraduate programs, since 2013, and the National Board of Accreditation (NBA) only accredits programs that use OBE.

Kanmani Buddhi's Publications:

She has published a book on "Effective Implementation of OBE leading to Accreditation" and another on "Digital Signal Processing Concepts using Python," both through ISTE-WPLP, an AICTE project, according to her profile.

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Thank you!