PONNAIYAH RAMAJAYAM INSTITUTE OF SCIENCE & TECHNOLOGY [PRIST]
(Institution Deemed to be University – U/s 3 of the UGC Act, 1956)
THANJAVUR – 613 403 - TAMIL NADU
SCHOOL OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF CIVIL ENGINEERING

MINUTES OF THE MEETING

The Meeting of the Board of Studies in Civil Engineering was held on 30.07.2020 at 2.00 PM under the chairmanship of Dr. Ashutosh Das

The following Members were present for the meeting:

S.No.	Name of the Member	Position	Role
1.	Dr.Ashutosh Das	Professor	Chairman
2.	Dr.G.Venkatesan	Assistant Professor (Sr.Gr),University College of Engineering, Anna University, BIT Campus, Trichy	Academic Expert, (External Member)
3.	Er.P.Vadivel	Divisional Engineer, Department of Highways (Investigations),Trichy	Industry expert, (External Member)
4.	Dr.R.Iraikarkulali	Professor	Internal Member
5.	Dr.P.Ravindran	Professor	Internal Member
6.	Dr. S.Sugumar	Associate Professor	Internal Member
7.	Prof.B.Jose Ravindra Raj	Associate Professor	Internal Member
8.	Prof.J.Santhiyaa Jenifer	Assistant Professor	Internal Member
9.	Prof.R.Sankar	Assistant Professor	Internal Member

The Chairman, Board of Studies in the Department of Civil Engineering welcomed the members and briefed about the existing curriculum and syllabi. for various programmes offered by the Department and also the details of feedback on curriculum received from the various stake holders during the Academic year 2019-20.

After thorough scrutiny of the curriculum and Syllabi and the details of feedback on curriculum received from the Stake holders during the Year 2019-20, the members of the Board have unanimously passed the following resolutions:

➢ Resolved to introduce the following Audit courses in B.Tech (CIVIL Engineering)-Full Time curriculum with effect from 2020-21 as per the guidelines of the All India Council for Technical Education:

      Sem -I: Induction Training Programme- 2credits

      Sem-II: Indian Constitution- 2credits

      Sem-III: Introduction to Gender studies- 2credits

      Sem IV: Community Engagement- 2credits

      Sem V: Innovation and Entrepreneurship- 2credits

      Sem VIII: Professional Ethics and Human Value- 2credits

Further resolved to approve the syllabus for the above mentioned Audit Courses as given in **Annexure-I**

➢ Resolved to introduce the following Audit courses on Soft kills in the B.Tech (CIVIL Engineering)-Full Time curriculum with effect from 2020-21 as per the guidelines of the All India Council for Technical Education:

Year I: Basic Behavioral Etiquette-2 credits

Year II: Technical, General Aptitude and Skill set Development-2 credits

Year III: Technical Training-2 credits

Year IV: Interview Skills Training and Mock Test -2 credits

Further resolved to approve the syllabus for the above mentioned Audit Courses as given in **Annexure-II**

Resolved to remove ANSYS Laboratory and add STAAD PRO Laboratory in the II Semester for both the M.Tech – Structural Engineering Full Time and Part Time Programmes.
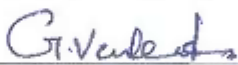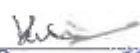
➢ Resolved to continue with the existing curriculum without any change for the following Programmes for the Academic Year 2020-21:

○ B.Tech – Civil Engineering- Part Time

➢ The members of the board also scrutinized and updated the panel of examiners and recommended for the Academic Council for its approval.

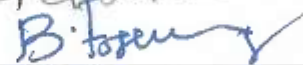. The meeting was concluded with thanks from the Board of Studies Chairman

Signature of the members:

S.No.	Name of the Member	Position	Signature
1.	Dr.Ashutosh Das	Professor	
2.	Dr.G.Venkatesan	External Member	
3.	Er.P.Vadivel	External Member	
4.	Dr.R.Iraikarkulali	Professor	
5.	Dr.P.Ravindran	Professor	
6.	Dr. S.Sugumar	Associate Professor	
7.	Prof.B.Jose Ravindra Raj	Associate Professor	
8.	Prof.J.Santhiyaa Jenifer	Assistant Professor	
9.	Prof.R.Sankar	Assistant Professor	

Annexure-I

Student Induction Training

The*InductionProgram*isdesignedtomakethenewlyjoinedstudentsfeelcomfortable, sensitize them towards exploring their academic interests and activities, reducing competitionandmakingthemworkforexcellence,promotebondingwithinthem,buildrelations betweenteachersandstudents,giveabroaderviewoflife,andbuildingofcharacter.

Induction program	3 weeks duration
Induction program for students to be offered right at the start of the first year.	• Physical activity • Creative Arts • Universal HumanValues • Literary • Proficiency Modules • Lectures by Eminent People • Visits to local Areas • Familiarization to Dept./Branch &Innovations

The activities during the Induction Program would have an Initial Phase, a Regular Phase and a Closing Phase. The Initial and Closing Phases would be two days each.

Course on Indian Constitution

Aim:
- To under stand the salient features of the Indian Constitution

Objectives:
- To make the students understand about the Democratic Rule and Parliamentarian Administration.
- To appreciate the salient features of the Indian Constitution.
- To know the fundamental Rights and Constitutional Remedies.
- To make familiar with powers and positions of the Union Executive, Union Parliament and the Supreme Court.
- To exercise the adult franchise of voting and appreciate the Electoral system of Indian Democracy.

Outcomes
- Democratic values and citizenship Training are gained.
- Awareness on Fundamental Rights are established.
- The functions of union Government and State Governments are learnt.
- The power and functions of the Judiciary learnt thoroughly.
- Appreciation of Democratic Parliamentary Rule is learnt.

UNIT I: The Making Of Indian constitution

The Constituent Assembly Organization Character – Work – Salient features of the constitution – Written and Detailed Constitution – Socialism – Secularism – Democracy and Republic.

UNIT II: Fundamental Rights And Fundamental Duties Of The Citizens

Right of Equality – Right of Freedom – Right against Exploitation – Right to Freedom of Religion – Cultural and Educational Rights – Right to Constitutional Remedies – Fundamental Duties.

UNIT III: Directive Principles Of State Policy

Socialism   Principles – Gandhian Principles – Liberal and General Principles – Differences between Fundamental Rights and Directive principles.

UNIT IV: The Union Executive, Union parliament And Supreme Court

Powers and positions of the President – Qualification Method of Election of President and vice president – Prime Minister Rajya Sabha- Lok Sabha – The Supreme Court – High Court – Functions and position of Supreme court and High Court.

UNIT V: State Council – Election System And Partliamentary Democracy In India

State council of Ministers – Chief Minister – Election system in India- Main features – Election Commission - Features of Indian Democracy.

References:
1. Palekar S.A. Indian Constitution Government and politics, ABD Publications, India.
2. AiyerAlladi, Krishnaswami, Constitution and fundamental rights 1955.
3. Markandan K.C. Directive Principles in the Indian Constitution 1966.
4. KashyapSubash C Our Parliament, National Book, Trust New Delhi 1989.

INTRODUCTION TO GENDER STUDIES

COURSE OUTLINE

Unit-I Concepts
Sex vs. Gender, masculinity, femininity, socialization, patriarchy, public/ private, essentialism, binaryism, power, hegemony, hierarchy, stereotype, gender roles, gender relation, deconstruction, resistance, sexual division of labour.

Unit-II
Feminist Theory
Liberal, Marxist, Socialist, Radical, Psychoanalytic, postmodernist, eco-feminist.

Unit-III
Women's Movements: Global, National and Local
Rise of Feminism in Europe and America.

Women's Movement in India.

Unit-IV
Gender and Language
Linguistic Forms and Gender.

Gender and narratives.

Unit-V
Gender and Representation
Advertising and popular visual media.

Gender and Representation in Alternative Media.

Gender and social media.

Community Engagement

a) Objectives:

• To develop an appreciation of rural culture, life-style and wisdom amongst students

• To learn about the status of various agricultural and rural development programmes

• To understand causes for rural distress and poverty and explore solutions for the same

• To apply classroom knowledge of courses to field realities and there by improve quality of learning

b) Learning Outcomes:

After completing this course, student will be able to

• Gain an understanding of rural life, culture and social realities

• Develop sense of empathy and bond so mutuality with local community

• Appreciate significant contributions of local communities to Indian society and economy

• Learnt value the local knowledge and wisdom of the community

• Identify opportunities for contributing to community's socio-economic improvements

c) Credit

2 credit, 30 hours, at least 50% in field, compulsory for all students

d) Contents

Divided into four Modules, field immersion is part of each Unit

Course Structure: 2 Credits Course (1 Credit for Classroom and Tutorials and 1 Credit for Field Engagement)

S. No.	Module Title	Module Content	Assignment	Teaching/ Learning Methodology	No. of Classes
1	**Appreciation of Rural Society**	Rural life style ,rural society, caste and gender relations, rural values with respect to community, nature and resources, elaboration of soul of India lies in villages' (Gandhi), rural infrastructure	Prepare a map (physical, visual or digital) of the village you visited and write a necessary about inter-family relations in that village.	- Classroom discussions - Field visit** - Assignment Map	2 4 2
2	*Understanding rural economy & livelihood*	Agriculture, farming, landownership, water management, animal husbandry, non-farm livelihoods and artisans, rural entrepreneurs, rural markets	Describe your analysis of rural h o u s e h o l d economy, its challenges and possible pathways to address them	- Field visit** - Group discussions in class - Assignment	3 4 1
3	*Rural Institutions*	Traditional rural organizations, Self-help Groups, Panchayati raj institutions (Gram Sabha, Gram Panchayat, Standing Committees), local civil society, local administration	How effectively are Panchayati Raj institutions functioning in the village What would you suggest to improve their effectiveness? Present a case study (written or audio-visual)	- Classroom - Field visit** - Group presentation of assignment	2 4 2

4	*Rural Development Programmes*	History of rural development in India, current national programmes: SarvaShikshaAbhiyan, BetiBachao, BetiPadhao, Ayushman Bharat, Swatchh Bharat, PM AwaasYojana, Skill India, Gram PanchayatDecentralised Planning, NRLM, MNREGA, etc.	Describe the benefits received and challenges faced in the delivery of one of these programmes in the rural c o m m u n i t y ; give suggestions about improving implementation of the programme for the rural poor.	- Classroom - Each student selects one program for field visit** - Written assignment	2 4 2

INNOVATION AND ENTREPRENEURSHIP

Course Outcomes

After the completion of the course, the students will be able to:

- Comprehend the role of bounded rationality, framing, causation and effectuation in entrepreneurial decision making.
- Demonstrate an ability to design a business model canvas.
- Evaluate the various sources of raising finance for start up ventures.
- Understand the fundamentals of developing and presenting business pitching to potential investors.

Course Content

Module – I
Introduction to Entrepreneurship: Entrepreneurs; entrepreneurial personality and intentions-characteristics, traits and behavioral; entrepreneurial challenges.
Module-II
Module Entrepreneurial Opportunities: Opportunities. discovery/ creation, Pattern identification and recognition for venture creation: prototype and exemplar model, reverse engineering.

Module –III

Entrepreneurial Process and Decision Making: Entrepreneurial ecosystem, Ideation, development and exploitation of opportunities; Negotiation, decision making process and approaches**,** Effectuation and Causation.

Module-IV

Crafting business models and Lean Start-ups: Introduction to business models; Creating value propositions-conventional industry logic, value innovation logic; customer focused innovation; building and analyzing business models; Business model canvas, Introduction to lean startups, Business Pitching.

Module – V

Organizing Business and Entrepreneurial Finance: Forms of business organizations; organizational structures; Evolution of Organisation, sources and selection of venture finance options and its managerial implications.Policy Initiatives and focus; role of institutions in promoting entrepreneurship.

Books for References

- *Ries, Eric(2011), The lean Start-up: How constant innovation creates radically successful businesses, Penguin BooksLimited.*
- *Blank, Steve (2013), The Startup Owner's Manual: The Step by Step Guide for Building a Great Company, K&S Ranch.*
- *S. Carter and D. Jones-Evans, Enterprise and small business- Principal Practice and Policy, Pearson Education(2006)*
- *T. H. Byers, R. C. Dorf, A. Nelson, Technology Ventures: From Idea to Enterprise, McGraw Hill(2013)*
- *Osterwalder, Alex and Pigneur, Yves (2010) Business ModelGeneration.*
- *Kachru, Upendra, India Land of a Billion Entrepreneurs,Pearson*
- *Bagchi, Subroto, (2008), Go Kiss the World: Life Lessons for the Young Professional, PortfolioPenguin*
- *Bagchi, Subroto, (2012). MBA At 16: a Teenager's Guide to Business, PenguinBooks*
- *Bansal, Rashmi, Stay Hungry Stay Foolish, CIIE, IIMAhmedabad*
- *Bansal, Rashmi, (2013). Follow Every Rainbow,Westland.*
- *Mitra, Sramana (2008), Entrepreneur Journeys (Volume 1), BooksurgePublishing*
- *Abrams, R. (2006). Six-week Start-up, Prentice-Hall of India.*
- *Verstraete, T. and Laffitte, E.J. (2011). a Business Model of Entrepreneurship, Edward ElgarPublishing.*
- *Johnson, Steven (2011). Where Good Ideas comes from, Penguin BooksLimited.*
- *Gabor, Michael E. (2013), Awakening the Entrepreneur Within,Primento.*
- *Guillebeau, Chris (2012), The $100 startup: Fire your Boss, Do what you love and work better to live more, Pan Macmillan*
- *Kelley, Tom (2011), The ten faces of innovation, CurrencyDoubleday*
Prasad, Rohit (2013), Start-up sutra: what the angels won't tell you about business and life, HachetteIndia.

PROFESSIONAL ETHICS AND HUMAN VALUES

OBJECTIVE:
- To enable the students to create an awareness on Engineering Ethics and Human Values, to instill Moral and Social Values and Loyalty and to appreciate the rights of others.

UNIT I   HUMAN VALUES

Morals, values and Ethics – Integrity – Work ethic – Service learning – Civic virtue – Respect for others – Living peacefully – Caring – Sharing – Honesty – Courage – Valuing time – Cooperation – Commitment – Empathy – Self confidence – Character – Spirituality – Introduction to Yoga and meditation for professional excellence and stress management.

UNIT II   ENGINEERING ETHICS

Senses of ‗Engineering Ethics' – Variety of moral issues – Types of inquiry – Moral dilemmas – Moral Autonomy – Kohlberg's theory – Gilligan's theory – Consensus and Controversy – Models of professional roles - Theories about right action – Self-interest – Customs and Religion – Uses of Ethical Theories.

UNIT III   ENGINEERING AS SOCIAL EXPERIMENTATION

Engineering as Experimentation – Engineers as responsible Experimenters – Codes of Ethics – A Balanced Outlook on Law.

UNIT IV   SAFETY, RESPONSIBILITIES AND RIGHTS

Safety and Risk – Assessment of Safety and Risk – Risk Benefit Analysis and Reducing Risk - Respect for Authority – Collective Bargaining – Confidentiality – Conflicts of Interest – Occupational Crime – Professional Rights – Employee Rights – Intellectual Property Rights (IPR)– Discrimination.

UNIT V   GLOBAL ISSUES

Multinational Corporations – Environmental Ethics – Computer Ethics – Weapons Development – Engineers as Managers – Consulting Engineers – Engineers as Expert Witnesses and Advisors – Moral Leadership –Code of Conduct – Corporate Social Responsibility.

OUTCOMES:
- Upon completion of the course, the student should be able to apply ethics in society, discuss the ethical issues related to engineering and realize the responsibilities and rights in the society.

TEXT BOOKS:

1. Mike W. Martin and Roland Schinzinger, ― Ethics in Engineering‖, Tata McGraw Hill, New Delhi, 2003.
2. Govindarajan M, Natarajan S, Senthil Kumar V. S, ― Engineering Ethics‖, Prentice Hall of India, New Delhi, 2004.

REFERENCES:

1. Charles B. Fleddermann, ―Engineering Ethics‖, Pearson Prentice Hall, New Jersey, 2004.
2. Charles E. Harris, Michael S. Pritchard and Michael J. Rabins, ―Engineering Ethics – Concepts and Cases‖, Cengage Learning, 2009.
3. John R Boatright, ―Ethics and the Conduct of Business‖, Pearson Education, New Delhi, 2003
4. Edmund G Seebauer and Robert L Barry, ―Fundamentals of Ethics for Scientists and Engineers‖, Oxford University Press, Oxford, 2001.
5. Laura P. Hartman and Joe Desjardins, ―Business Ethics: Decision Making for Personal Integrity and Social Responsibility‖ McGraw Hill education, India Pvt. Ltd.,New Delhi, 2013.
6. World Community Service Centre, ‗ Value Education', Vethathiri publications, Erode, 2011.

Web sources:

 www.onlineethics.org   www.nspe.orgwww.global.orgwww.ethics.org

Annexure-II

Year I: Basic Behavioral Etiquette-2 credits

Year II: Technical, General Aptitude and Skill set Development-2 credits

Year III: Technical Training-2 credits

Year IV: Interview Skills Training and Mock Test -2 credits

Annexure-III

S. No.	Year	Semester	Course Name	L	T	P	C
BTech – CIVIL ENGINEERING - Specialization in Internet of Things							
1	1st	II	IT Infrastructure Landscape Overview	2	0	0	2
2	1st	II	Introduction to Internet of Things (IOT)	3	0	0	3
3	2nd	III	Python Programming	3	0	2	4
4	2nd	III	Sensor Technology & Instrumentation	3	0	2	4
5	2nd	IV	Wireless Sensor Networks (WSN) &IoT Standards	3	0	2	4
6	3rd	V	Embedded Technology for IOT	3	0	2	4
7	3rd	VI	Analytics for IOT	3	0	2	4
8	3rd	VI	IOT Enterprise Solution Architecture	3	0	4	5
9	4th	VII	IOT for Industries (Use Case Scenarios)	3	0	2	4
	4th	VIII	Project				