



SRI MANAKULA VINAYAGAR ENGINEERING COLLEGE

(An Autonomous Institution)

SCHOOL OF ARCHITECTURE

(Approved by Council of Architecture, New Delhi & Affiliated to Pondicherry University)
(Accredited by NAAC with "A" Grade)

Madagadipet, Puducherry - 605 107



Department: School of Architecture Minutes of Meeting UG. Board of Studies-B.ARCH

The Fourth Board of Studies meeting in School of Architecture was held on 19th March 2022 at 11:00 A.M with Principal.

The following members were present for the BoS meeting:

Sl.No	Name of the Member with Designation and official Address	Responsibility in the BoS
1	Ar. S.Manoharan Principal, School of Architecture Sri Manakula Vinayagar Engineering College. Ph:9444032007 Mail id:myimano@yahoo.co.in	Chairman
External Members		
2	Ar.R.Siddharthan, Professor, Ranganathan College of Architecture Coimbatore. Ph:9884529176 Mail id:crsiddharthan@yahoo.co.in	University Nominee
3	Dr.Ar.K.Thirumaran, Professor, Department of Architecture, NIT Trichy-620015. Ph:9894018599 Mail id:thiru731@gmail.com	Member
4	Dr.Ar.Elango, Professor, SAP Anna University, Chennai-6000025 Ph:9444070778 Mail id:archelango73@gmail.com	Member

5.	Ar.M.Arun, Chief Architect, 125,8 th Main Road,Anna nagar, Chennai-40, Ph:044-26215855 Mail id:ethos123@gmail.com	Industrial Member
Internal Members		
6	Ar.R.Ragavendra, Associate Professor, School of Architecture, Sri Manakula Vinayagar Engineering College, Ph:9944443335 Mail id:ragav13@gmail.com	Member
7	Ar.R.Satheesh Kumar, Associate Professor, School of Architecture, Sri Manakula Vinayagar Engineering College, Ph:9840148546 Mail id:archsathis88@gmail.com	Member
8	Ar.T.Mugesh, Assistant Professor, School of Architecture, Sri Manakula Vinayagar Engineering College, Ph:9597009536 Mail id:thuritharc@gmail.com	Member
9	Ar.B.Kanimozhi, Assistant Professor, School of Architecture, Sri Manakula Vinayagar Engineering College, Ph:9655391860 Mail id:kanimozhibabu3@gmail.com	Member
10	Ar.R.Balaaji, Assistant Professor, School of Architecture, Sri Manakula Vinayagar Engineering College, Ph:9840137988 Mail id:balaaji@gmail.com	Member

11	Ar.G.Venkatramanan Assistant Professor, School of Architecture, Sri Manakula Vinayagar Engineering College, Ph:9789292591 Mail id:vengatramananbarch@gmail.com	Member
12	Ar.S.Adithyan Assistant Professor, School of Architecture, Sri Manakula Vinayagar Engineering College, Ph:9677859318 Mail id: adithyan.barch@smvec.ac.in	Member

Agenda of the Meeting

BOS / 2022 / B.ARCH / UG / 4.1 : To introduce and approve the New Board of Studies Internal Members to the External Members and University Nominee. The following were the new Members.

1	Ar.G.Venkatramanan	Assistant Professor
2	Ar.S.Adithyan	Assistant Professor

BOS / 2022 / B.ARCH / UG / 4.2: To introduce and approve the Road Safety and Civic sense Course in Semester- VII (Elective – V) in **R.20.0 I To X Semester Curriculum and R.22.0 Full Program Syllabus** as per the Council of Architecture instruction.

Ar.S.Manoharan, Chairman, BOS opened the meeting and introduced the external members and Ar.B.Kanimozhi presented welcome speech about Sri Manakula Vinayagar Engineering College and School of Architecture to the internal and co-opted members and thanked them for accepting to become the member of the Board of Studies and the meeting thereafter deliberated on agenda items that had been approved by the Chairman.

Minutes of Meeting

<u>BOS / 2022</u> <u>/ B.ARCH /</u> <u>UG / 4.1</u>	The Board of Studies members approved the following new BOS Internal Members.			
	1	Ar.G.Venkatramanan	Assistant Professor	Internal Member
	2	Ar.S.Adithyan	Assistant Professor	Internal Member
<u>BOS / 2022</u> <u>/ B.ARCH /</u> <u>UG / 4.2</u>	The Board of Studies members approved the Road Safety and Civic sense Course in Semester- VII (Elective – V) in R.20.0 I To X Semester Curriculum and R.22.0 Full Program Syllabus as per the Council of Architecture instruction. R.20.0 I To X Semester Curriculum – “ANNEXURE- I” R.22.0 Full Program Syllabus – “ANNEXURE- II”			

The meeting was concluded at 12:30 PM with vote of thanks by Ar.S.Manoharan,
Principal - School of Architecture / SMVEC.


(Ar.R.Siddharthan)



(Dr.Ar.K.Thirumaran)


(Dr.Ar.Elango)



(Ar.M.Arun)


(Ar.R.Ragavendra)


(Ar.R.Satheesh Kumar)


(Ar.B.Kanimozhi)


(Ar.T.Mugesh)


(Ar.R.Balaaji)


(Ar.G.Venkatramanan)


(Ar.S.Athithyan)


(Ar. S.Manoharan)
Chairman, BOS- B.ARrch

“ANNEXURE-I”

R.20.0 I TO X SEMESTER CURRICULUM:

PROFESSIONAL ELECTIVES - V

Sl. No.	Course Code	Course title	C/P	L	T	P/S	C	Marks		
								IA	ESE	TM
13	U20EL0712	Advanced Structures	3	3	0	0	3	50	50	100
14	U20EL0713	Sustainable Architecture and Planning	3	3	0	0	3	50	50	100
15	U20EL0714	Dissertation	6	0	0	6	3	50	50	100
16	U20EL0715	Road Safety and Civic Sense	3	3	0	0	3	50	50	100



"ANNEXURE-II"

THEORY		L	T	P/S	C
U20EL0715	ROAD SAFETY AND CIVIC SENSE	3	0	0	3

OBJECTIVES

- To introduce the Concepts, Principals, Tools and aids of Road Safety and Civic Sense to the students of B.Arch.
- To acquaint them with the design and safely standards for roads.
- Also inculcate the practice of safe road behavior and civic sense among them.

COURSE OUTCOME

After Completion of the Course, the Students will be able to

CO1- Understanding the Road Safety and Types of Roads **(K1,K2)**.

CO2- Understanding the Types of Intersections, Pedestrian Circulations **(K1,K2)**.

CO3- Understanding the Traffic Signs and Signals with Traffic Control Aids **(K1,K2)**.

CO4- Understanding the Cause of Road Accident and Prevention Safety measures to Road Accidents **(K1,K2)**.

CO5- Understanding the Traffic Regulations, Laws and Legislations **(K1,K2)**

UNIT - I INTRODUCTION TO ROAD SAFETY AND TYPOLOGY OF ROADS 07

- Road as an active space, Types of Users, User Behavior, Sensory Factors like Vision and Hearing in User Behavior.
- Vehicle Characteristics: Dimensions, Weight, Turning Radii, Braking Distance, Lighting System, Tyres, etc. Type of Hazards: Conflicts and Accidents.
- Road Classification: National Highways, State Highways, District Roads (MDR and ODR), Village Roads Urban Road Classification: Expressways, Arterial, Sub-Arterial, Collector, Local, Service Roads, One-Way, Two-Way etc. Mountainous Roads. Speed Limits of the Road *types*.
- Design of Roads: Cross-Sectional Elements- Right of Way, Carriageway, Median, Shoulders, Sidewalk, Lanes, Cycling Track, Green Strip, Curbs, Camber, etc. Spatial Standards for the Cross-Section Design. Relationship between Road Design and Road Safety.

UNIT - II INTERSECTION, PEDESTRIAN CIRCULATION AND BARRIER FREE DESIGN 10

- Types of Road Intersections: Basic Forms of at-grade Junctions (T, Y, Staggered, Skewed, Cross, Scissors, Rotary, etc. Grade Separated Junctions (with or without interchange): Three-Leg, Four-Leg, Multi-Leg, etc.
- Design of Intersections: Design and Spatial Standards for Traffic Islands, Turns, Turning Radii, Directional Lanes, Pedestrian Crossings. Median Openings, Traffic Calming Components like Speed Breakers and Table-Top Crossings etc.
- Design Considerations for Diverging, Merging, and Weaving Traffic. Location and Design for Traffic Signals.
- Requirement of Pedestrian Infrastructure: Sidewalks and Footpaths, Recommended Sidewalk Widths, Pedestrian Crossings, Pedestrian Bridges, Subways, Cycle Tracks, etc.
- Barrier Free Design: Location and Design Standards for Ramps for Wheel Chair Access, Other Provisions like Tactile for Visually Challenged etc.
- Safety Provisions: Pedestrian Railings, Anti-skid Flooring, Pedestrian Signal, Walk Button, etc.



UNIT III TRAFFIC SIGNS AND ROAD MARKING WITH TRAFFIC SIGNAL, 10
TRAFFIC CONTROL AIDS AND STREET LIGHTING

- Type for Traffic Signs: Principles and Types of Traffic Signs, Danger Signs, Prohibitory Signs, Mandatory Signs, Informative Signs, Indication Signs, Direction Signs, Place Identification Signs, Route Marker Signs, etc. Reflective Signs, LED Signs. Static and Dynamic Signs.
- Standards for Traffic Signs: Location, Height and Maintenance of Traffic Signs
- Types of Road Markings: Centre Lines, Traffic Lane Lines, Pavement Edge Lines, No Overtaking Zone Markings, Speed Markings, Hazard Markings, Stop Lines, Pedestrian Crossings, Cyclist Crossings, Route Direction Arrows, Word Messages, Marking at Intersections, etc.
- Material, Colour and Typography of the Markings.
- Traffic Signals: Introduction, Advantages, and Disadvantages
- Signal Indications: Vehicular, Pedestrian and Location of the Signals.
- Traffic Control Aids: Roadway Delineators (Curved and Straight Sections), Hazard Markers, Object Markers, Speed Breakers, Table Top Crossings, Rumble Strips, Guard Rails, Crash Barriers etc.
- Street Lighting: Need for Street Lighting, Type of Lighting, Illumination Standard, Location and Intermediate Distance.

UNIT IV ROAD ACCIDENT, ROAD SAFETY AND CIVIC SENSE 10

- Nature and Types of Road Accidents (Grievously Injured, Slightly Injured, Minor Injury, Non-Injury, etc.) The situation of Road Accidents in India (Yearly), Fatality Rates, etc.
- Factors (and Violations) that cause accidents, Prevention and First Aid to Victims Collision Diagrams and Condition Diagrams exercises.
- Traffic Management Measures and their influence in Accident Prevention.
- Need for Road Safety, Category of Road Users and Road Safety Suggestions.
- Precautions for Driving in Difficult Conditions (Night, Rain, Fog, Skidding Conditions, Non-Functional Traffic Lights, etc.)
- Types of Breakdowns and Mechanical Failures. Accident Sign (Warning Light, Warning Triangle, etc.)
- Introduction to Concept of Civic Sense and its relationship to Road Safety: Importance of Civic Sense, Road Etiquettes and Road User Behavior, Rules of Road, Right of the Way. Providing Assistance to Accident Victim. Sensitization against Road Rage.

UNIT V TRAFFIC REGULATIONS, LAWS AND LEGISLATIONS 08

- Indian Motor Vehicles Act (Chapter VIII: Control of Traffic to be discussed in detail)
- Regulations Concerning Traffic: Cycles, Motor Cycles and Scooters, Rules for Pedestrian Traffic, Keep to the Left Rule, Overtaking Rules, Turning Rules, Priority Rules, Hand Signals, etc.
- Speed and Hazard Management. Penal Provisions.
- National Road Safety Policy, Central Motor Vehicle Rules, State Motor Vehicle Rules Introduction to Good Practices.

TOTAL PERIODS 45

TEXT BOOK

1. Introduction to Traffic Engineering, R Srinivasa Kumar
2. Traffic Engineering and Transport Planning, LR Kadiyali
3. Book on Road Safety Signage and Signs, Ministry of Road Transport and Highways, Government of India



REFERENCES

1. MORT&H Pocketbook for Highway Engineers, 2019 (Third Revision)
S. Publications by UTTIPEC namely, Street Design Guidelines, UTTIPEC Guideline for Road Markings, UTTIPEC Guideline and Specification for Crash Barriers, Pedestrian Railing and dividers, UTTIPEC Standard Typical Crossing Design.
2. Publications by Indian Road Congress.
3. Street Design Standards as provided in Times Savers, Neuferts etc.

Cos/POs MAPPING'

COs	Program Outcomes (POs)							
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
1	-	1	-	-	-	-	-	-
2	-	1	-	-	-	-	-	-
3	-	1	-	-	-	-	-	-
4	-	1	-	-	-	-	-	-
5	-	1	-	-	-	-	-	-

V. Manoharan