GUJARAT TECHNOLOGICAL UNIVERSITY
BRANCH NAME: M. Arch. (INTERIOR ARCHITECTURE)
SUBJECT NAME: ADVANCED TECHNOLOGIES
SUBJECT CODE: X36202
2nd Year: Semester-III

Pre requisite: It is assumed that students have developed the basic understanding of interior services: Lighting, sound, Air-conditioning, Building automation etc., their introduction, and design guidelines in buildings.

Rationale: To understand the characteristics and functioning of certain advanced technogies and its application in Interior Architecture.

Teaching and Assessment Scheme:

TEACHING SCHEME			**CREDITS**	**EXAMINATION MARKS**				**TOTAL MARKS**	**UNIVERSITY EXAM TYPE**
Field work	Lectures	Studio	C	External Marks		Internal Marks		100	Theory Exam
NA	2	2	04	(ESE) Theory (E)	(ESE) Viva (V)	(PA) Theory (M)	(PA) Viva (I)		
				40	00	40	20		

Content:

SR No	**Content**	**Total Hours**	**Weightage**
1	**Introduction to advance materials and construction methods** Introduction, applications and Limitations of advanced materials such as types of engineering woods, artificial stones, alabasters, Translucent Concrete, Sensing tile, Electrified Wood, Self-Repairing Cement, and Various Fibers, etc. also to develop the working methods of the same.	16	25%
2	**Interior Environment Quality controls :** Introduction of advanced technology applied for the following aspects of interior environment. Indoor air quality – Visual quality – Acoustic quality – Noise control – Control of systems – Thermal absorption – Green prefab walls – Roof treatment for air quality loss- Water efficiency – waste efficiency – Environmental Quality enhancement services(for eg. Green toilet & Green Kitchen)	16	25%

3	**Virtual reality in Interior architecture** Introduction to VR, advantages and disadvantages, manners in which it can inculcated in interior design. Study of a movie will be helpful in understanding VR and its scope.	16	25%
4	**Introduction of AI and Smart Technology in Material** Understanding the essence of smart devices, its advantages and disadvantages. Building automation, appliances, innovation in the materials such as smart glass.	16	25%

*: indicative

REFERENCE BOOKS:

1. John.F. Pile, Interior Design, 2nd edition, illustrated, H.N.Abrams, 1995.
2. Greeno, Roger, "Building Services Technology and Design", Longman Scientific and Technical, Harlow.
3. Riggs, R. (1992) Materials and components of Interior Design, Prentice – Hall of India Pvt Ltd., New Delhi.
4. Allen dizik (1988), A concise encyclopedia of Interior Design, 2nd edition, van nos – trend reinbold, Newyork.
5. Joseph, D.C., Julies, P. and Martiv, Z. 1992, Time saver standards for Interior Design and space Planning, New York.
6. Interior Design Materials and Specifications, By Lisa Godsey, A&C Black.
7. Interior Design Illustrated, By Francis D. K. Ching, Corky Binggeli, John Wiley & Sons.

Lectures/Tutorial work shall consist of presentations on various topics of the subject. AV projects may be introduced to students for documenting best practices and advances through case studies. Coursework shall consist of lectures/presentation on various topics listed above supported with visuals in form of drawings, sketches, photographs, models etc. Written assignments with sketches, drafted drawings for construction detailing and model making exercises, presentations etc can be given to students. Site visits, market surveys and various other ways to engage with industry must be incorporated in this course

*- this is suggestive for common purpose. Faculty may decide on this, considering student group and institution philosophy.