



Course Title: INTELLIGENT BUILDINGS

Course Code: ARCH223

Credit Units: 2

Level: UG

L	T	P/S	SW/FW	TOTAL CREDIT UNITS
2	-	-	-	2

#	Course Title	Weightage
	INTELLIGENT BUILDINGS	
1	Course Objectives: To introduce the concept of intelligent buildings and to acquaint the student with the factors to be taken into consideration to build an intelligent building.	
2	Prerequisites: NIL	
3	Student Learning Outcomes: To update the students with the latest technologies such as motion sensors , artificial lighting which would reduce the consumption of energy.	
Course Contents / Syllabus:		
4	Module I: Introduction	20
	Concepts, purpose, scope and definition of Intelligent buildings, utility in modern world, advantages and disadvantages of the intelligent buildings.	
5	Module II: Building Automation System	30
	Concept and application, Current trend and innovation, Effect of building automation on functional efficiency, Components of Building Automation, HVAC, electrical, lighting, security, fire-fighting; Integrated approach in design, maintenance and management system, Concept of artificial intelligence, Application of expert system in architecture	
6	Module III: Advanced Telecommunication Systems	50
	Intelligence with respect to telecommunications	
8	Pedagogy for Course Delivery:	

9	Assessment/ Examination Scheme:							
	Theory(%)	Lab/Practical/Studio (%)					Total	
	100%	NIL					100%	
	Theory Examination Schedule							
	Components (Drop down)	<i>A</i>	<i>CP</i>	P	S	CT1	CT2	EE
	Weightage (%)	05	05	10	10	10	10	50

Text & References:

Text:

- Intelligent Fuzzy Optimal Control of Building Structures – Engg. Str. V-20n3, March '98, pp. 184.
- Intelligent Controller with Closing Problems for Building Systems International Conference, Proceeding, 1998.
- Intelligent Component Health Monitoring System.
- Integration of Communication Networks Automation in Construction, V-6n 5-3

References:

- Intelligent Building System for Airport, ASHRAE Journal V-39 N 11, Nov. '97 pp. 31-35
- Maintenance System of Electrical Facilities Proceedings of the Annual Conference, 1997.