



# Sardar Patel Institute of Technology

Bhavan's Campus, Munshi Nagar, Andheri (West), Mumbai-400058-India  
(Autonomous Institute Affiliated to University of Mumbai)

Course Code	Course Name	Teaching Scheme (Hrs/week)			Credits Assigned			
		L	T	P	L	T	P	Total
CEE92B	Information and Communication Technologies (ICT) for Social Cause	3	--	--	3	--	--	3
		Examination Scheme						
		ISE		MSE		ESE		
		10			30		100 (60% Weightage)	

Pre-requisite Course Codes		
At the end of successful completion of the course, students will be able to		
Course Outcomes	CO1	To understand technologies used in ICT.
	CO2	To design and implement ICT application for societal benefits
	CO3	To demonstrate use of emerging technology for social applications
	CO4	To apply Knowledge based ICT tool for social cause
	CO5	To develop an ICT tool as an expert system for different domains

Module No.	Unit No.	Topics	Ref.	Hrs.
1		<b>Basics of ICT :</b>		
	1.1	Introduction to ICT, Challenges and opportunities in using technology for a social cause, Understanding the social and cultural influences that affect users. Creating an ICT – handling text, data and media	1	4
2		<b>Communication Techniques in ICT</b>		
	2.1	Mobile Techniques – CDMA, Mobile wireless WiMAX, Advanced wireless technologies, Bluetooth Satellite Techniques – architecture AND working principles GPS/GPRS	1,2,3,4	8
	2.2	Cloud computing – Introduction, cloud services, Cloud service providers		
	2.3	GIS– Working principle and architecture for ICT		
3		<b>Data acquisition in ICT</b>		
	3.1	Recognition systems RFID, OMR Data acquisition process for MEMS devices Sensors – Programming, communication with cloud.	6	8
	3.2	Formation of social groups and interaction analysis Facebook, Twitter, Blogs, Forums, mailing lists etc		
4		<b>Data Management in ICT</b>		
	4.1	Data management, Data storage structures	6	6
5		<b>Knowledge management in ICT</b>		
	5.1	Knowledge elicitation, Knowledge Engineering Methodology, Knowledge representation and visualization techniques Automatic discovery programs	6	8



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	<b>5.2</b>	Data visualization, Auditing knowledge management, Linking knowledge management to business performance		
<b>6</b>		<b>ICT applications and Social Audit</b>		
	<b>6.1</b>	Study of ICT applications in various domains such as Agriculture, Healthcare, Education, SCM, Finance, Law.	1,7,8	8
	<b>6.2</b>	Social Audit: The Social Audit Tool (SAT), Social Audit Tool , Social Auditing, Characteristics of the SAT, Uses of the SAT , Benefits of the SAT, The SAT Methodology , Purposes, Method, and Approach of the SAT, Implementing the SAT, The Social Auditor		
			<b>Total</b>	<b>42</b>

## References:

- [1] Paul Warren , Jhon Davies, David Brown , Wiley Publication ,ICT Futures :Delivering Pervasive Realtime And Secure Services, Wiley Publication
- [2] Jochen Schiller, "*Mobile communications*", Addison wisely, Pearson Education
- [3] Dr.K.Elangovan, GIS Fundamentals, Applications and Implementation, New India Publications.
- [4] Anthony T. Velte , Cloud Computing : A practical Approach, Tata McGraw-Hill
- [5] NadimMaluf , An Introduction to Microelectromechanical systems Engineering , ,Artech House
- [6] Jessica Keyes , Knowledge management business intelligence , and content management :  
The IT practitioner's Guide by
- [7] S.R. Verma , ICTs for transfer of technology tools and techniques , New India
- [8] USAID, Social Audit Tool Handbook, Using the Social Audit to Assess the Social Performance of Microfinance Institutions, 2008.