

## **RURAL INFORMATICS MANAGEMENT**

**An informed citizen is a productive citizen. The usage of information and communication technology in the Rural Development sector has led to the evolution of Rural Informatics in India. Rural Informatics has reached its stage today where Information Technology finds a significant place in Rural Development. Rural Informatics can result in providing wide range of information which was difficult to obtain, especially in remote areas such as Block Head Quarters. The computerization of Rural Department Sector has facilitated the building of IT services providing G2C (Govt. to Citizen) and C2C (Citizen to Citizen) interface.**

**Information such as Agriculture marketing and Mandi Information, Health and Sanitary practices, National initiatives like family welfare, disaster management, employment opportunities, weather forecasting and so on form core of rural informatics.**

**Computerized Rural Informatics systems project (CRISP) ([www.crisp.nic.in](http://www.crisp.nic.in)). Council for advancement of people information and rural technology (CAPART) (<http://capart.nic.in>) providing multimedia and communication facilities at National Institute of Rural Development (NIRD). Integrated Management Information System (IMIS) are some of the national level projects in rural development sector.**

**Development of database application for integrated rural development program(IRDP), Training of Rural Youth for Self-employment (TRYSEM), Jawahar Rozgar Yojana (JRY) and web based applications for Rural Department have been already operationalised.**

**This syllabus has been designed to emphasize on usage of ICT in Rural Informatics with appropriate case studies and success stories. During this course of study, students will be exposed to Basics of Computer Applications, Database Management System, Computer Networking, World Wide Web services, Entrepreneur Concepts and emerging trends in ITES-BPO sector. Role of Community Information Centre's (CIC's) providing block level connectivity will also be highlighted. A background on issues related to rural areas will also be developed. The course also aims at personality development and improving communication skills.**

## RURAL INFORMATICS MANAGEMENT

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<b>4. BASIC-Microsoft Office</b>	<b>Duration:50 hrs</b>
<b>5. Multimedia</b>	<b>Duration:20 hrs</b>
<b>6. Introduction to DBMS</b>	<b>Duration:15 hrs</b>
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<b>8. Internet</b>	<b>Duration:30 hrs</b>
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<b>10. Information Systems</b>	<b>Duration:15 hrs</b>
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<b>12. ICT Success Stories in RD sector</b>	<b>Duration:25 hrs</b>
<b>13. Entrepreneurship concept</b>	<b>Duration:25 hrs</b>
<b>14. ITES/BPO Industry-<i>Emerging Trends</i></b>	<b>Duration:25 hrs</b>

**Lectures: 360 Hours**  
**Practical: 360 Hours**  
**Total : 720 Hours**

# **Course in: RURAL INFORMATICS MANGEMENT**

## **Chapter 1: Study of Rural Areas**

**Duration:35 hrs**

**Study of Rural Area, Problems in Rural Areas(Infrastructure, Population, Communication and social problems) Panchayati Raj: Socio Economic and Political Impact.**

- **Problems of Rural Economy/Areas:** Problems of rural Economy in India, Agricultural and economic development problem of Rural Employment/Unemployment, Rural Poverty, concept and types.
- **Agricultural development and extension Services:** Pattern of land use and Land Ownership, Modern Agricultural Technologies, Changing Role of Agricultural Services,Case studies of extension service benefits.
- **Rural Credit: Extent of Rural in-debtness in India, Multi Agency approach to credit, District and Block Level Credit Planning, Cooperative development in India.**
- **Rural Development Policies: Rural Industrialization and Entrepreneurship, Export and Imports of Agricultural Products, Water shed Development for sustainable Agricultural Development, Programs implemented for Rural Development (3 Major Programs).**
- **ICT in Rural Development :** Role of Information Communication Technology in spreading Education in Rural Areas, Function of Edusat for bridging the education divide in rural areas, Low cost technology devices to boost rural communication, NGO's and the development of Rural Entrepreneurship.

## **Chapter 2: Computers Appreciation**

**Duration: 30 hrs**

**Basics of Computers, Characteristics of Computers, Introduction to operating systems, Input, Output, Storage Units, CPU, Computer System, Binary Number System, Binary Coded Decimal, Hexadecimal, etc., Conversions: Binary to Decimal, Decimal to Binary, Hexadecimal to decimal, decimal to Hexadecimal, Different types computer software.**

## **Chapter 3: Computer Organization/Memory**

**Duration: 20 hrs**

**Control unit, Arithmetic Unit, Processor speed, Main Memory: Capacity, RAM, ROM (PROM, EPROM, EEPROM), Secondary Storage Devices: Magnetic Disk, Floppy & Hard Disk, Optical Disks: CDROM, DVD's.**

**Chapter 4: BASIC- Microsoft Office**

**Duration:50 hrs**

**DOS- Disk Operating System, Microsoft Windows, Microsoft Office: Microsoft WORD, Microsoft EXCEL, Microsoft POWERPOINT, Microsoft ACCESS.**

**Chapter 5: Multimedia**

**Duration: 20 hrs**

**What is Multimedia, Text, Graphics, Animation, Audio, Images, Video, Application of Multimedia in Education and Entertainment.**

**Chapter 6: Introduction to (DBMS)**

**Duration: 15 hrs**

**Data: Primary and Secondary, historical data for reference and analysis, data capture: online and offline, validation, storage.**

**Why database, Characteristics of data in database, DBMS, advantage of DBMS, introduction to RDBMS, database security.**

**Chapter 7: Networking Fundamentals**

**Duration: 20 hrs**

**Communication Medias: Guided and Unguided, Networking Fundamentals, Networking Topologies, working with Window NT, Introduction to Client Server Architecture, Role of Telephone Lines in data transfer, ISDN Difference between Internet and Intranet.**

**Chapter 8: Internet**

**Duration: 30 hrs**

**How to use Internet, Browsers, Browsing the Internet, Web Pages, hyperlinks, how to send and receive emails, chat over internet, TCP/IP, FTP.**

**Threats over internet: Viruses, Worms, Hacking.**

**Security Measures: Firewalls, Anti-viruses.**

**Chapter 9: Web Designing**

**Duration: 30 hrs**

**Introduction to HTML, Understanding HTML, DHTML, Style Sheets, Domain Name System (Sub-Domain), Web Publishing Tools: Front page 2000. Design and Development of a static website for any rural development program.**

**Chapter 10: Information Systems**

**Duration: 15 hrs**

**Information System: meaning, nature and their role, Types of information system, decision support system, MIS, role of Internet and Intranet in development of information systems.**

**Chapter 11: Community Information Centre**

**Duration: 20 hrs**

**Role of CIC's in J&K state, study of infrastructure in a CIC, an overview of VSAT technology. A visit to a nearby CIC.**

**Chapter 12: ICT success stories in RD sector**

**Duration: 25 hrs**

**Case study of Gyandoot (intranet in Dhar District connecting Rural Cyber Cafes), Bhoomi (online delivery of land records in Karnataka), Yuva.com, Khajane(Treasure), Mahithi, Land record management system of J&K.**

**Chapter 13: Entrepreneurship Concept**

**Duration: 25 hrs**

**Objective: Expose students to the growth of entrepreneurship and awareness about factors, entrepreneurship development and new ventures. Who is an Entrepreneur, features of an Entrepreneur, Risks involved in beginning a new firm and effective management, Leadership Qualities, Marketing Mix Strategy. Entrepreneur and Entrepreneurship.**

**Policies and Programs for Growth.**

**Entrepreneurship development programs (EDP).**

**Models for new ventures.**

**Chapter 14: ITES/BPO Industry-*Emerging Trends***

**Duration: 25 hrs**

**Introduction, Improvement upon: Communication skills, Behavioral Skills, Call Handling Skills, Management Skills, Voice Accent and Voice Modulations, Presentations and face to face interviews.**

**Lectures: 360 Hours**

**Practical: 360 Hours**

**Total : 720 Hours**

## **Hardware requirement**

### **Client Computer configuration recommended:**

<b>Process speed PIII</b>	<b>: 500 MHz or higher</b>
<b>RAM</b>	<b>: 64 MB or higher</b>
<b>HDD</b>	<b>: 10 GB or higher</b>
<b>VGA Adapter</b>	<b>: 640 X 480 colors</b>
<b>Monitor</b>	<b>: SVGA</b>
<b>Mouse</b>	<b>: Windows Compatible</b>
<b>Keyboard</b>	<b>: Standard</b>
<b>NIC</b>	<b>: Standard</b>
<b>CDROM</b>	<b>: 52 X or Higher</b>
<b>Speaker</b>	<b>: Standard</b>

### **Server configuration recommended:**

<b>Process speed PIV</b>	<b>: 3.2 GHz or higher</b>
<b>RAM</b>	<b>: 512 MB</b>
<b>HDD</b>	<b>: 80 GB or higher</b>
<b>Monitor</b>	<b>: SVGA</b>
<b>Mouse</b>	<b>: Windows Compatible</b>
<b>Keyboard</b>	<b>: Standard</b>
<b>NIC</b>	<b>: 10/100/1000 MB</b>
<b>CDROM</b>	<b>: 52 X or Higher</b>
<b>Speaker</b>	<b>: Standard</b>

### **Printer**

<b>Laser Printer/ Inkjet Printer/ Dot Matrix Printer</b>	<b>: Standard</b>
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**OHP/LCD projector** : Standard

**UPS** : Standard

**Scanner** : Standard

**Switch** : Standard (Depending upon member of clients)

**Sufficient number of Computers / Nodes in Client server configuration mode.**

## **Software Required:**

- 1. Operating System : Windows 98/2000/XP/Windows Server 2003**
- 2. Software packages : MS Visual Studio 6.0 (Academic version), JDK 1.4 (download)**
- 3. Compilers : C/C++ Win 32 compiler**