

Advanced Diploma in Health System Informatics



Health Informatics Students in a training session

This is full time course. Students will not be allowed to pursue any evening course, correspondence course or other courses. Classes are usually scheduled between 9 am to 6 p.m. with some breaks in between. But students may have to spend more time. Some of the facilities of the Institute remain open 24 hours. Students are allowed to use these facilities with prior arrangement.

Course Outline

Course No.	Course Title
CHS 100	Site Preparation, Basic Skills and Personal Computer Hardware
CHS 201	Client Operating System and Office Suite Support
CHS 202	Networking Essentials
CHS 203	Windows Network Operating Systems
CHS 204	Communication and Personality Development
ADH 301	Linux Administration
ADH 302	Introduction to Health Systems
ADH 303	Introduction to Telemedicine
ADH 304	Communication and Personality Development
ADH 305	Office Automation and Equipment
ADH 401	Internship

Course Description

SEMESTER I

CHS 101 : Site Preparation and Basic Skills

Electricity, Soldering, Tools and plants, Conduit laying

CHS 200 : Personal Computer Hardware

PC Anatomy and Models, PC Mother Boards, Expansion Buses and CPU's, PC Maintenance and General Disassembly, Introduction to and Installing a Hard Disk, PC Memory, Video Adapters and Displays, PC Power Supplies and Protection, Key Board, Mouse, Printers, Configuring Circuit Boards, Modems and Serial Interfaces, CD-ROM, SCSI Boards and Devices, Note Book / Laptop Computers, PC Component Market Survey, Upgrading an Old Computer, PC Assembling, Make-up Practicals

CHS 201 : Client Operating System and Office Suite Support

Installation and Supporting Linux Workstation, Windows 95/98, Desktop Navigation using Linux X-windows and Windows 95/98, Microsoft Office, Lotus Smart suite, Star Office on Linux

CHS 202 : Networking Essentials

Introduction to Networking, Basic Network Media, Structured cabling, Understanding Network Architecture, Network Operating Systems, Network Standards - OSI Reference Model, Network Standards - IEEE 802.x Project Model, Network Protocols, Elements of Network Connectivity, Designing and Installing a Network, Network Security, Printing on a Network, Administering Change in Network, Troubleshooting a Network

CHS 203 : Windows Network Operating System

Windows 2000 Overview, Windows 2000 Architecture, Installing Windows 2000, Implementing and Administering Microsoft Windows 2000 Active Directory Services, Introduction to User Accounts, Windows 2000 Groups, Implementing a Microsoft Windows 2000 Network Infrastructure, Overview of DHCP, Implementing Name Resolution Using DNS, Implementing Name Resolution by using WINS, Configuring Remote Access, Configuring and Managing Disks, Managing Data by using NTFS, Providing Network Access to File Resources, Monitoring and Optimizing Performance in Windows 2000, Introduction to Auditing, Implementing Disaster Management, Implementing Windows 2000 Based Servers, Configuring Network Connectivity between OSs, Creating and Managing Trees and Forests, Managing Active Directory Replication, Maintaining the Active Directory Database

CHS 204 : Communication and Personality Development - I

Spoken English, Health Informatics Seminar, Academic and Business Communication (ABC) workshops for development of documentation skills

SEMESTER III

ADH 301 : Linux Administration

History and Introduction of Linux, Introduction to Red Hat Linux (latest version), Installation of Red Hat System (latest version), Configuring LILO and Other Boot Managers, System Startup and Shutdown, Installing and Configuring X Window System, Windows Managers, Introduction to Linux Commands, Linux File systems, Disks, and Other Devices, Working with Files, Creating and Managing Users and Groups, Performing System Maintenance, Printing with Linux, Installing and Configuring TCP/IP, DNS & DHCP, SMTP and Sendmail, FileTransfer Protocol (FTP), Connecting to the Internet, NFS - Network File System, Installing and Configuring Samba Server, NIS - Network Information Server, Configuring and Building Kernels, Backup and Restore, System Security, Emulators, Tools and Window Clients

ADH 302 : Introduction to Health Systems

Health Care Organisations, Hospitals and Clinics, Healthcare Profession, Use of computers in Healthcare Institutions

ADH 303 : Introduction to Telemedicine

Introduction to Video Conferencing, Introduction to Telemedicine Solutions

ADH 304 : Communication and Personality Development

Spoken English, Health Informatics Seminar, Academic and Business Communication (ABC) workshops for development of documentation skills.

ADH 305 : Office Automation and Equipment

Access Control System, Closed Circuit TV, Paging Systems & Office Equipment like Copier, Fax etc.,

STAR (Scope, Time Table and Assigned Readings)

Details of course contents, faculty profile, timings etc. are present in this which will help the students know the schedule for the following day allowing him to prepare for the topic well in advance. STAR consists of all the details that are to be discussed on that day. So depending upon the topic for that day, you have to read the required number of pages specified, understand the topic and keep your doubts ready. On the day of discussion of that topic you will be asked questions regarding the topic and then you should raise your doubts.

Handouts

During the course students will be provided with the reference books for their respective modules. A set of tools useful for PC Hardware Maintenance and Crimping Tool will also be provided.



The Health Informatics Some Text Books and Tools

Academic Conduct

The underlying principle of academic conduct is the assurance of the integrity of the Institute's educational mission. Students are expected to abide by this principle in all relevant matters, including those identified below.

Academic Deficiencies Noted at Admission

A deficiency is a lack of course work or knowledge in a basic area that may be critical to the programme and professional work. Deficiencies in a student's past academic work or prerequisite skills may be identified during the admissions process. The Faculty Committee may require that the student complete additional course work prior to entry into the programme or at the onset of the programme. Such deficiencies are brought to the notice of students in the letter of admission. Students should take steps immediately to remove any deficiencies noted on their letter of admission within the stipulated period.

Conflict of obligation or opportunity

The wealth of opportunity available to the student at IHS makes it inevitable that there will be occasions when conflict arises (e.g., between regularly scheduled courses and guest seminars, special activities, work-study programme, etc.). In these situations it is the faculty's expectation that the regularly scheduled course takes priority. Each instructor is free to make the judgment that a particular activity is of sufficient merit to warrant special arrangements.

Academic Integrity

The IHS expects high integrity from its academic community. The guiding principle of academic integrity is that a student's submitted work must be the student's own. Students are required to submit such work for evaluation for various reasons:

- To help the students develop and cogently express concepts, knowledge, and skills
 - To inspire creative thinking and work
 - To provide the instructor with feedback revealing whether or not students grasp the material presented
 - To provide a record of the student's progress
 - To promote the learning of new material and to reinforce old material
-
- ☛ IHS students are expected to adhere to the following guidelines regarding academic standards and behavior. There is no intention to discourage interactions among students, faculty, and others. Exchanges among students are invaluable, especially in this institute where the diversity of backgrounds and experience is so rich and varied. Nevertheless, these guidelines emphasize the need for attributing credit and for doing independent work when required by the instructor.
 - ☛ All work submitted to meet course requirements is expected to be a student's own work. In the preparation of work submitted to meet course requirements, students should always take great care to distinguish their own ideas and knowledge from information derived from sources. Whenever ideas or facts are derived from a student's reading and research the sources must be indicated. The term "sources" includes not only published primary and secondary material, but also information and opinions gained directly from other people. The responsibility for using the proper forms of citation lies with the individual student. Quotations must be placed within quotation marks, and the source must be credited. All paraphrased material also must be completely acknowledged.
 - ☛ IHS encourages its students to collaborate with others for academic work. Students must however acknowledge any collaboration and its extent in all submitted work. This requirement applies to collaboration on editing as well as collaboration on substance.
 - ☛ Students who submit work either not their own or without clear attribution of its sources may be subject to disciplinary action including the possibility of being required to withdraw from the programme.
 - ☛ If the student intends to submit the same or substantially the same work to more than one course, prior written permission of the instructor involved must be obtained.

Academic Misconduct

All instances of academic misconduct are serious in their potential for harm to the educational process. Academic misconduct is defined as any activity which tends compromise the academic integrity of the institution, subvert the education process.

Examples of academic misconduct include:

- ☞ Providing or receiving information during exams and quizzes; or providing or using unauthorized assistance in the laboratory, at the computer terminal, on field work;
- ☞ Plagiarism, including the use of term papers or laboratory reports from any source other than the student's own work;
- ☞ Alteration of grades or marks by the student in an effort to change the earned grade or credit;
- ☞ Falsification on any other official form or any other official document ;
- ☞ Violation of course rules as contained in the course syllabus or other information provided the student. Instructors' policies may vary widely concerning the conditions under which assignments are to be completed or the access permitted to examinations or other materials from current or prior offerings of the course. Violating such policies is academic misconduct. It is the student's responsibility to know and abide by these policies, as it is the instructor's responsibility to announce them. If there is any uncertainty as to the acceptability of an action, the student should confer with the faculty member to clarify the expectation.

✎ Failure to report incidents of academic misconduct.

These examples are not meant to be exhaustive, and the Institute reserves the right to determine, in a given instance, what action constitutes an infringement of academic honesty and integrity. The ADHSI Programme Office actively attempt to inform students of the requirements of academic honesty through orientation programs and publications and will investigate vigorously complaints of academic dishonesty.

➤ Internship and Placement

The need for actual hands-on experience is essential for the well-rounded education of our students. To emphasize this and to provide the opportunity for our students to participate in a work environment, a supervised internship of one year is prescribed for all students who have satisfactorily completed the required course work of the Advanced Diploma in Health System Informatics programme.

Purpose

The internship is viewed as the culminating, synthesizing experience in the Advanced Diploma in Health System Informatics course. Therefore, the internship should enable the student to;

- ◆ To ensure that these candidates have enough exposure to the specific needs of health care institutions, a period of internship is prescribed. Students who successfully complete phase-I will be eligible for the Internship.
- ◆ Duration of internship is one year. During the internship, students will work full time in a health care institution, under the guidance of a local mentor and an IHS Faculty.
- ◆ The health care institutions for internships may be located any where in the state of AP. So expect to spend the year at locations out side of Hyderabad.
- ◆ The IHS faculty will pay periodical visits to review contributions by the intern to development and / or maintenance of the host institutions information system. However, the intern will be under the full administrative control of the host institution. The intern will play the role of a system administrator to the host institutions and where system administrators already exist, the intern will be attached to him / her as an assistant.
- ◆ The Institute will make active efforts and assures internship placement for all candidates who successfully complete phase-I. However, candidates may also find out host institutions for internship. In that case, the Institute will satisfy itself about the suitability of the proposed host institution and availability of suitable mentors, etc. before approval can be given for internship.
- ◆ The host institution will pay stipend to the intern according to their choice. The Institute recommends a stipend of Rs.3500/- per month. However, actual stipend may vary between different host institutions.

Placement

There is a Placement Coordinator in IHS to facilitate the placements in reputed hospitals and software companies. However, selection will depend upon your merit and effort. IHS role is to facilitate your placements. Note that placement record of our CHISA course students has been very good so far, as can be seen from the table below.

Year	No. Admitted	No. Passed	Placement: Regular/ Internship with stipend	Passed Students Placement %
1999	22	17	15	88%
2000	18	14	14	100%
2001	23	18	14	78%
2002	23	19	18	95%

Partial list of Health Informatics Graduate Placement

Organisation / Company	Position Occupied by Health Informatics Graduate
AP Bhavan, New Delhi	System Administrator
Bharat Sanchar Nigam Ltd. (BSNL), Ongole	Junior Telecom Officer
CMC, Koti, Hyderabad	Project Assignee
Care Hospital, Hyderabad	Computer Operator
Dishnet, Medicity Campus, Hyderabad	Technical Assistant
Dell International Services, Bangalore	Tech Support Representative
Dell Computers India Pvt. Ltd, Bangalore	Customer Support Engineer
Delta Systems, Vidya Nagar, Hyderabad	Network Administrator
LV Prasad Eye Institute, Hyderabad	System Administrator
GE Capital Services India, Hyderabad	Customer Support Executive
Govt. Polytechnic College, Ramanthapur	LDC
Birla Home Finance, Hyderabad	Marketing Executive
Intech Solutions, Secunderabad	Network Engineer
Institute of Health Systems, Hyderabad	Assoc. System Administrator
Compulearn, Vishakapathnam	Faculty in Networking
Municipal Corporation of Hyderabad (MCH)	System Administrator
NFO MBL, World Office, Hyderabad	Network Engineer
Sagarlal Memorial Hospital, Hyderabad	System Administrator
Sierra Optima, Secunderabad	Software Engineer
APTransco, CPDCL, Hyderabad	Computer Operator
Torrent Technologies, Hyderabad	System Administrator
Punjab National Bank, New Delhi	Manager IT, ATM Networks
Sutherland Technologies, Chennai	Help Desk Engineer

A_{dmission Requirements}



Eligibility

Initial career Graduates with basic computer education seeking to build a career in health care service and health informatics sector, and

Mid-career Health care institution personnel seeking to diversify their skills and move on to the health informatics area.

Initial career

1. Educational qualification & experience:
 - A graduate degree in any subject.
 - A basic training in computers. There will be an assessment of skills to ensure that candidates have minimum skills required for entry into the course.
2. Age limit 35 years.
3. An interest and aptitude for health informatics sector.

Mid-career

1. Educational qualification & experience:
 - A graduate degree in any subject, OR
 - Diploma in an allied health field like Certificate of Nursing, Pharmacy etc. with at least three years of work experience in a health care institution.
2. Age limit 45 years.
3. An interest and aptitude for health informatics sector.
4. Expression of interest and support from the health care institution concerned.

Admission Procedure

Application

An application for admission is included in this prospectus. A completed application form with copies of relevant certificates must be returned to the Institute on or before the notified deadline. The applications received will be screened by the Admissions Committee of the Institute. Candidates found eligible for the course will be called for an 'entrance test' at the Institute.



A Practical Session in Progress

Admission Tests

Candidates with a valid application are first screened to satisfy the above eligibility criteria, are invited for the selection tests consisting of the following.

Test component	Description	Usage for Selection
Initial screening	Educational qualification, Age, and Mobility skill. Candidate should at least have skills to ride a two wheeler.	Qualifying
Type writing = 30 words per minute	Candidates are given two types of typewriting test using a typing software. Both line test and a lesson of running matter are included. Test is administered through a computer with an examiner standing by to observe usage of fingers, touch type ability, etc. Speed as reported by the typing software is recorded.	Qualifying.
Personal Computing Skill Test	Candidates are examined about familiarity with input output devices, Windows or Linux environment, office suite of applications and other software.	Qualifying
Online test of computer knowledge	A test is designed to include questions on computer systems, networks, operating systems, communications, database, etc. The questions are randomly drawn from a question bank. Total 50 multiple choice questions are included in the test. The test is administered online through a PC workstation assigned to each candidate for this purpose. Marks earned by the candidate are generated by the test application on the spot.	Competitive.
Career Interview	Candidate meets a faculty from the area of health informatics. Effort is to understand candidates aspirations and match with the course, aptitude for system administration, integration type of job, etc.	Competitive
General Interview	Candidate meets a faculty from the public health area. Effort is to understand his / her personality, interest in health care field, value systems, and match with IHS learning environment.	Competitive.

Competitive = If everything else is equal between two candidates, the one with more marks in this test has preference. In case of interviews assessment by the faculty will be the basis of competition. Qualifying =Candidates are allowed to improve their speed and accuracy and take a repeat test, if they want.

Results of all tests, including repeat tests of typewriting and PC skills, if any are placed before a Selection Committee, which usually consists of the Course Coordinator, Training Services Officer and the Institute Director or his nominee. Requests for reviews may be taken up in extraordinary situations and decision of the selection committee is final.

Registration for the Course

All those selected for admission must register for the course by the date notified in the academic calendar. Students who have gained financial and administrative clearance will be registered for the First Semester. Students should register for each subsequent semester to continue in the programme.

Administrative Clearance

Administrative clearance is granted to students to register for the first semester after verification of the original certificates in support of the student's academic and professional qualifications. Students who are not in a position to produce the original certificates will be registered provisionally. It is expected that they submit the original certificates for verification before registration, failing which their registration will be canceled. New students must produce three recent Passport Size Photographs and two sources of identification at time of registration.

- Photo Id - i.e., Driving license, Passport, Credit Card, College Photo Id, Electoral Photo Id, Photo Id issued by post office or Bank pass book with photograph. Any one of them.
- Other source - Household Ration card, Electricity / water / Telephone bills. Any one of them.

Administrative clearance is granted to continuing students to register for the remaining semesters, subject to his/ her student status and concurrence of his/her Faculty Advisor and the Programme Coordinator

Financial Clearance

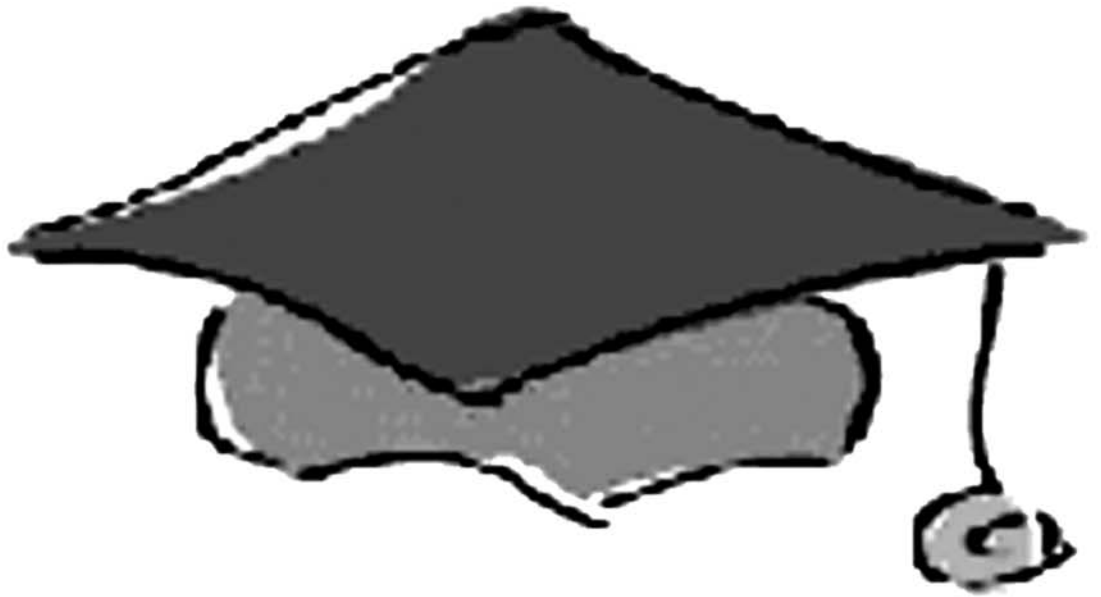
Financial clearance is granted to students to register for the programme after receipt of payment of the prescribed tuition and other relevant fees for the first phase.

How to Apply

Road Map to Entry Selection:

- Fill in the form and file it with the Training Services Officer
- Take the Personal computer skill test at IHS
 - You can take this test on any working day. Prior scheduling will be desirable. The course coordinator will administer the entry test first to those who have scheduled in advance and then on an walk in basis.
 - The test consists of two parts:
 - Multiple choice questions on personal computers and personal computing.
 - Practical test for those who pass the multiple choice question entry test.
- Take the Personality and Health Service orientation test This will be in the form of interviews. Up to two faculty members will discuss with you about your interests, career plans, and how the proposed career path of Health Intranet System Administration will help you. Faculty members will be interested to learn about your interests and attitude towards the health care services sector.
- The course coordinator will inform you of the result within two business days of last test.
- If you are selected in the entry test, you should pay required tuition fees within two days of receiving information about your selection. There after the seat will be offered to the next candidate in waiting.
- After paying the tuition and other relevant fees
 - Collect the temporary student ID Card.
 - Course material if any and assigned readings for the first week.
- Permanent student ID card will be prepared for you on the first day of the course

Financial Information



Fees and Expenses

It is important that before students embark on the ADHSI course, they are certain that they have sufficient financial resources to cover all of the expenses that they will incur throughout their study at IHS. Students will need sufficient resources to cover the course fees, cost of course material, and living expenses.

Course Fees

Phase	Tuition	Laboratory	Business Communication	Course Material	Row Total
1. Skill development phase (Semester I & II)	9,000	7,000	5,000	9,000	30,000
2. Skill application phase (Semester-III)	4,000	0	0	1,000	5,000
All Phases	13,000	7,000	5,000	10,000	35,000

- i. Tuition fee and lab charge payable at the beginning of the term (phase).
- ii. In special and deserving cases installments may be considered.
- iii. Course material cost is an approximate estimate. Students will be billed as per actuals. Students will be required to deposit an advance for the course material. Accounts will be settled periodically based on actual usage.
- iv. For issue of any certificate or formal statement of training, candidates must have cleared all dues to the Institute, apart from satisfying respective academic requirement.

Sponsored Candidates

Scholarships

Financial support may be available. In the past many students have received financial support. For further details please contact the Managing Director's office of the concerned corporation at the following address.

The Corporations	
The Commissioner, AP BC Welfare Department Telugu Samkshema Bhavan, Masab Tank, Hyderabad, AP – 500 028	The Managing Director AP SC Corporation Telugu Samkshema Bhavan, Masab Tank, Hyderabad, AP – 500 028

Candidates may be partially or fully sponsored by employers, international organizations, philanthropists, governments or other agencies. The sponsoring agencies may pay the fees either directly to the institute or through the sponsored student. The nature of the sponsorship, the time schedule for fee payment, student's contribution, if any, and the mode of payment of fees have to be specified at the time of registration. It is the responsibility of the student to ensure that the requisite fees are paid by the sponsoring agencies in time to meet the financial clearance deadlines.

The IHS Work-Study Programme

The work-study programme aims primarily to provide a "learn as you do" opportunity for students. The programme also serves as a source of supplementary income to students. Entry to the work-study programme is subject to availability of suitable work at the Institute. Students have to find work by contacting potential employers in the institute. These include:
 Faculties: who may employ students to assist in their research activities,
 The librarian: usually employs students to extend its service hours and meet variable human power needs, and
 Work Study Budget Holders: The list of work-study budget holders is updated from time to time depending on requirements. The latest list can be had from the Training Services Officer.

The student must maintain a Time Sheet indicating the number of hours worked, duly signed by the appropriate official under whom he/she is working. The stipend paid per hour of work will be as offered by the concerned work study employer. The continuance of the student in the Work-Study programme is subject to the satisfaction of the official under whom he/she is working.

Living in Hyderabad



H yderabad is one of the fastest growing cities in India with a wealth of cultural and intellectual activities. The city is cosmopolitan, and is richly endowed with a variety of cultures. The city presents an attractive blend of old world charm together with the ebullience of growth and enterprise. Graceful mosques, ornate places, brisk bazaars and grand forts rules shoulders with large glass and chrome temples of commerce and technology.

Hyderabad offers a mix of tradition and progress with an easy pleasant lifestyle. It has a good standard of living while the cost of living is comparatively lower than most Indian cities. Hyderabad has excellent telecommunications network, reliable public transport and is well connected to other parts of the country by rail, air and road. And administrative and commercial center and a transportation hub, the city has well developed educational, health care and recreational and entertainment facilities.

The Hyderabad culture is rich and varied, and the people are gracious, warm and hospitable. Hyderabad is renowned for its pearls, glass bangles and cuisine. Hyderabad is a multilingual city. The state language is Telugu but many are conversant in Hindi and Urdu also. English is now commonly spoken in Hyderabad.

Hyderabad is at an altitude of 536 meters with mean summer temperature going upto a maximum of 42 degrees Celsius and the minimum average temperature being around 22 degrees. The maximum winter temperature is around 22 degrees Celsius with the minimum going down to around 12 degrees. Light woollens are required during early mornings and late evenings, in winter. The rainy season has moderate rains between July to September and is manageable.

Hyderabad offers housing for all budgets. Students can either rent houses/flats/rooms or stay as a paying guest. The city offers a choice between furnished and unfurnished places, and short term and long term rentals. The quality of housing varies. You can find old, traditional colonial houses, but these are rare and expensive. They also require a lot of upkeep and staff. Apartments, both low rise and high rise are the most common and most economical. Students generally prefer to rent out single rooms or share an apartment with other students.

Rents vary according to location in the city, number of bedrooms and condition of the house/flat. It is hard to get accurate data on rental prices. And informal survey of accommodation facilities in Hyderabad indicates that the rent for middle income apartments and houses are in the range of Rs.2500 to 6000 per month within the city. Single rooms with attached bathrooms will cost between Rs.1000 and 2500. Paying guest facilities are available with or without meals in the range of Rs.1500 to 3000. Rentals are cheaper in the suburbs.

The rental process is usually straightforward. Houses and rooms are rented to companies or individuals on an 11 month basis with a lease agreement. A rental deposit is standard and the deposit expected equals 2 or 3 months of the rent. The lease usually specifies an annual increase of, say, 10 percent.

To ensure that students have somewhere to stay on arrival, the Institute will arrange temporary accommodation in budget hotels. Students are responsible for the full cost of their temporary accommodation, which can range from Rs.250 to Rs.300 per day. The Housing Assistant at the Institute will be able to assist students with their housing needs. For more details contact:

Mr. Ajay Shinde,

Housing Assistant

Phone No. 23210136, 23210139, 23211013 & 23211014

E-mail: housing@ihsnet.org.in