

Software Programs used in SIMATS

General ICT Initiatives

- **Ipad, Wifi for all faculty and Students across the campus**
- **Saveetha Portal Students Management**
- **Digital Classrooms**

The classrooms are equipped with smart boards extended into each individual student's iPad. The lectures prepared by the staff are uploaded on the UNIO **Harness Touch on Cloud system** and the students have access to the notes and presentations of the lecture. These lectures can be visited at any time for reference purposes in 3 layers namely original lecture layer, layer with students notes and layer with staff notes. Students who have missed out on lectures also have the opportunity to catch up on the notes and presentation of the class.

- **CMS (Campus management System)**

To manage indent, material management and leave details. Attendance Portal: Attendance management, complaints and feedback system. Attendance is marked through biometric mode; both at the time of arrival and departure.

- Well-equipped **DTP centre** attached to the library with 5 high end Xerox machines

Academic

- **Academic Record Management System(ARMS)**
 1. Online Registration: Simplify registration of courses and fee collections with online forms, with the push notifications from mobile devices have been made.
 2. Online Course Registration: Now we have a flexible system by making the student choose the faculty on his own and the subjects on his own interest based on the list of subjects available with respect to the programme and based on the prerequisite. The student has been given the privilege to do

his registration using the ARMS PORTAL designed by the College.

3. **Course Management:** Designing a course curriculum that can adapt to the changing needs of the institution is crucial, which has been made easy with the Course Management System of our institutions that enables, track course-work, Gate level assignments, and exam papers in a conducive classroom environment to support the goal of graduating students.
4. **Communication & Collaboration:** An apparent platform to provide seamless communication between students and faculties has been established. Web and mobile-based education management systems improve communication through instant notifications and alerts via email, SMS and push messages to keep the constituents informed at every step.
5. **Student Monitoring:** To monitor student's activities including attendance, leave, discipline, assignments, etc. automate and streamline web portal.
6. **Exam Fee Payment & Hall ticket :** payment of course exam fee and generation of hall ticket after the No due approval is being processed.

- **Simulation Based Learning (SBL)**

SAVEETHA MEDICAL COLLEGE-DEPARTMENT OF CLINICAL SKILLS AND SIMULATION

Department of Clinical Skills & Simulation, a Center of excellence, focuses on teaching Health Care Professionals in a safe learning environment with realistic experiences to support effective, efficient and safe patient care.

Our is a State-of-the-Art Simulation Center well designed for practising clinical skills that increases the students confidence, reduces errors and improves patient safety.

This 6000 sq. ft. multipurpose area is ideal for workshops. Alternatively, it can be used for lectures and tutorials.

Features include:

- A 60-seat Lecture Hall with necessary Audio-Visual aids.
- Work stations able to be utilised for multiple functions.
- Clinical skills training rooms/ cubicles suitable for small group teaching.

- Partitions to divide the rooms/ cubicles for sessions with parallel stations.

Our mannequin and equipment

- Advanced Life Support (ALS) Patient Simulator.

- **KOHA - Library Automation Software**

Koha is the best open source library automation software, used in SSL libraries, which will search libraries' collections and guide them to precise locations. It helps the librarian to organize the material in the library and the system is upgraded as the foundation Knowledge Sharing. It makes it easier for the user to use the library catalogue.

- Students feedback analysis through online **DREEM analysis** .
- **Course Management.**

Clinical

- **Record Management System (RMS), DIAS -For Patients Case sheet**

In the age of green technology, we have adopted an iPad-based Hospital Information System. It goes hand-in-hand with our aim to provide quick, seamless and comprehensive treatment to our patients while educating and training our students in toto. This system allows information to be accessed easily by both students and faculty at any given time on campus. It also aids in recording procedures completed by students for patients which is simultaneously graded by the staff incharge. A sense of responsibility and accountability is instilled in all.

- **ERP system** – for documentation

Teaching:

Digital Classrooms

- **ibooks**

Created ebooks for all the subjects which contain short video lectures , concept maps, relevant pictures and compilation of notes from various books . This allows students to listen to the lectures prior to classes and during the class hours group learning with various activities under guidance of the faculties take place. This helps them in understanding the concepts thoroughly.

- **Flip Classes**

A pre recorded video of the content of the class is given in advance to the students. The students view the video before the class. The class begins with an interactive discussion. This minimises the duration of content delivery during the class hours and promotes high order learning of concepts and their applications. The same videos also help in revision before the examination.

Finance and Purchase:

- **System Applications Products (SAP)** installed in the Accounts and Purchase department for managing purchases and easy approvals of the orders.
- **Kranium Software:** Indenting the Monthly Requirement from Purchase department

Research :

- **Biznet - For Clinical Trial**

A clinical trials management software offers an integrated suite of software products for CROs, Multispeciality hospitals, Pharmaceutical, Biotech Industries and Medical device industries. BizNET-CTM, is a multi-functional platform which allows a CRO (Contract Research Organization) in planning, managing, designing, executing, monitoring and analyzing trial related activities and data in adherence to the protocol and regulatory requirements. BizNET-CTM is an end-to-end solution which caters to all the needs of clinical research project starting from Project Management, feasibility assessment, volunteer or patient enrollment using iris recognition technology, capture clinical trial data, multi-level review process, data compilation to data archiving.

- **Kranium - Integrated Health Information System (HIS)**

It is a web based, 3-tier, comprehensive, modular and integrated HIS that automates the functionalities of healthcare establishments. Kranium is built with a firm foundation based on extensive interaction and key inputs from the hospital users. Kranium is entirely based on international norms & standards and relies on internationally accepted / used guidelines and practices. Kranium is HL7 compliant. Current and emerging standards in IT & Telecom and Healthcare Informatics play a fundamental and significant role in the roadmap of the product.

- **Kranium Lab**

Kranium Lab is a comprehensive LIS (Laboratory Information System) that addresses all the functionalities of a typical Laboratory department of a hospital and helps in streamlining the operations. Kranium Lab comprises of Biochemistry & Hematology, Microbiology, Anatomical Pathology, Blood Transfusion Services and Blood Donor Management. The suite also includes the phlebotomy functionality towards streamlining of specimen collection. The modules provide extensive parameters to govern the workflow including quality control aspects. The modules support information management and processing for the clinical aspects as well as provide extensive standard queries and reports including statistics for the management towards better planning and informed and timely decision-making.

- **Paperrater- Premium Plagiarism detection**

Plagiarism detection is a growing concern for both teachers and students as papers are sometimes copied in whole by unscrupulous students, or portions of text are not properly cited by writers that are ignorant or careless. It offer an Originality Score that indicates the percentage of paper content that is original. In addition to flagging grammar and spelling errors. The automated proofreader includes various modules that present analyses of the text and comparison with other students at the same education level. Some of the modules include: Vocabulary usage, Sentence length and variability, Phrases to avoid, Passive voice detection, Readability statistics, Analysis of sentence beginnings. The

development team has experience building state-of-the-art automated essay scoring systems, and this expertise has been incorporated into the Auto Grader module.

- **Sigmaplot 13**

SigmaPlot is a powerful and comprehensive scientific graphing and statistical analysis platform for Windows. It offers unparalleled capabilities for creating complex graphs and for performing in-depth data analysis and visualization tasks. SigmaPlot makes creating and editing graphs a simple and effective job, regardless of how complex are the graphs. The intuitive interface allows organizing the workflow in a really effective manner, especially thanks to elements such as the tabbed windows or the Office-style ribbon controls. High-quality graphs can be produced in a rather short amount of time and the seamless Microsoft Office integration allows you to easily access data from Microsoft Excel spreadsheets and display your results in Microsoft PowerPoint presentations. This impressive tool allows the creation of a large variety of graph types. More than 100 2-D and 3-D technical graph types are supported. Furthermore, every little detail of the charts and graphs can be configured to your liking, including axis breaks, colors, fonts, line thickness, etc. This application is so powerful and feature-rich that it would take days to describe all of its functions, tools and features. It can basically plot any mathematical function and it offers support for more than 50 popular statistical tests.

- **Statistical Package for the Social Sciences (SPSS) version 23**

SPSS offers the basic capability of descriptive statistics, regression and other related tools in the base package, to serve its most common applications. In addition, through various add on modules, it can cater to the more advanced needs of high end multivariate analysis, neural networks, conjoint analysis, etc. it offers the convenience of automating several tasks such as data cleansing and organizing, along with creating charts and other types of output. It also allows for automation of tasks such as data coding, missing value analysis and import/export (from tools such as excel). The SPSS screen offers two viewing modes; one with the data entry screen where entered or imported data are displayed. The labels row, unlike in excel, is displayed separately as a grayed out

area. The editing of the variables themselves takes place in the other display called the 'Variable View'. has two view options one is data view where data entry occur. The second view is variable view where we can see the properties of the variable(s), including name, variable type (string, date, numeric, etc.), variable length (width of the column), label, alignment, etc. as an analyst, one of the key advantages of SPSS is the ability to simply open an excel file in its own screen and edit information, without having to go through a complex import/export process. A wide range of data analysis functions can be performed using SPSS, including hypothesis testing, frequencies, crosstabs, T-test, ANOVA, correlation, (linear as well nonlinear), cluster analysis, factor analysis, discriminant analysis, missing value analysis, time series forecasting etc.

- **MATLAB (Matrix Laboratory)**

MATLAB (matrix laboratory) is a computing environment and programming language to analyse data, develop algorithms, or create models. It is used in all fields of application which includes Optimization , Data Science and Deep Learning, Signal Processing, Control Systems, Image Processing Test and Measurement, Application Deployment, Physical Modeling, Real-Time Simulation and Testing, Code Generation, Verification, Validation, and Test Database Access and Reporting

- **Online Public Access Catalogue (OPAC) - Library Management Software**

Library is fully automated using autolib (OPACS) Software. All documents are bar coded E-prints software is used for digital libraries. AutoLib Software ; Journal Management System; Shibboleth Athens; Wiley online portal; Content Management System in the form of eBooks; National knowledge network connectivity is availed, wherein access to e-journals is availed through INFLIBNET, DELNET, IUC facilities in addition to ERNET and other software.

Faculty

- **Biometric attendance system for faculty**

Biometrics helps record faculty in-time and out-time without any bias. We do award our faculty for punctuality. Hence this enhances accuracy in recording time which motivates our faculty.

- **Recruitment - SAP (Systems Application Product)**

It is a digital application we use for recruitment. Any application received via online or in person is collected and it is saved in the SAP database. This is reviewed and updated on a regular basis. When there is a requirement for any position the database is analyzed for a suitable candidate and placement is provided. The same app is also used for maintaining the attendance, pay- roll, ESI, promotion, appraisal are all managed through this app.

- **Employee Management System**

Toodle do Appigo, is an app which helps us make a to do list and have a check on all the work that is happening currently. This also enables them to allocate work to all , right from housekeeping to associate deans where they check it every day about the new allotted work and also updates on the completed task. This helps in smooth governance of all the work.

Students

- **Student Engagement**

This access provides everyone with their general profile, the course details, and college circulars, the examination schedule and results. There are separate sections available for circulars, mails, notes, question banks as well. Admission: Students can submit an application Online Free of cost for admission by visiting our Website.

- **Multi Purpose Student Card**

Can be used by students as ID card, mess card and also as debit card for undertaking bank transactions and payments.

- **E learning: Online Learning**

iPad based learning; Schoology; Wiki University; Sharepoint; Record Management System; Canvas; Brushes; Simple Mind; iTunes U; Flipped class; MOODLE/MOOC.

- **Web Forum**; e-learning at Law College through the extensive use of Infilibnet, Edusat, ICT, Westlaw etc.;
- Online teaching and learning resources like NPTEL, OCW from MIT
- **Smart Card : Cafeteria**

Our students are provided with smart cards to be used in all the cafeteria. Ours is the first institution to introduce an a la carte based smart mess. Students can choose anywhere across these places to swap and have their hearts content. They serve everything possible from pastries to biryani.

Admission

- Admission procedure through online - All application forms are to be filled online and submitted for further counseling and selection of a student for a course. In case if the students are not aware, we do provide iPads in the admission office which is fixed to its places where they can fill in their forms and submit. This ensures a green slogan also all the ranking is digitalized and displayed to the student during their selection to ensure a fair admission process.

Parents/Alumni Engagement

- Academic performance of students and other relevant circulars are communicated to the parents through online. Communication of activities and programs to the alumni is performed through online.

Financial Accounting System

- SAP(Systems Application Product) is used in maintaining the accounts of the institution. All the income and expenditures are filled in on a day to day basis. This is maintained and reviewed on a regular basis.

Purchase Department

- **SAP** software installed in the Accounts and Purchase department for managing purchases and easy approvals of the orders.
- Indenting the Monthly Requirement from the Purchase department through **Kranium Software**.

Cafeteria

- Food is an important component for anybody and our students have 5 cafeteria within the campus and are provided with smart cards. Ours is the first institution to introduce an a la carte based smart mess. Students can choose anywhere across these places to swap and have their hearts content. They serve everything possible from pastries to biryani.