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**ANALYSIS OF ACADEMIC ADMINISTRATIVE SYSTEM IMPLEMENTED AT SIMS**

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**ABSTRACT**

An effective academic administration is essential in growing higher education institutions to provide required information to all its stakeholders. Automation in academic office administration is started in many higher education institutions with an objective to improve the quality & speed of service to stake holders which include students, parents, teaching and nonteaching staff, principal & management and also public for some extent. Srinivas Institute of Management Studies, Mangalore has developed an indigenous computerized web enabled information system called SIMS Academic Administration System (SAAS). SAAS has several features as it can provide support to various activities involved in data collection, data handling, storage & retrieval, information presentation to all stakeholders, including management, principal, teaching faculty, office, laboratory & library staff, students, parents, industries, job providers and publics. In this paper we have analyzed the various features of the SAAS software using our recently developed business model & concept analyzing framework called ABCD technique. The performance of the software SAAS is evaluated based on identifying and analyzing the advantages, benefits, constraints, and disadvantages. The result supported the logic of using ABCD analyzing technique in any System performance evaluation.

**Keywords:** Academic administrative system, Performance evaluation, ABCD analysing technique.

## INTRODUCTION

Academic administration automation basically include all information about students, users and service providers of the institution and is an essential part of an institution at SIMS Academic Administration System (SAAS) being an office automation system is most sought supporting the activity of institution for value addition to its stakeholders. It is a software used to create, collect, store and include all office information systematically. This system helps the office procedures and supports the activities of the institution. While working manually an institution has to face lots of responsibilities in areas like admission, monthly attendance calculation, internal marks, staff feedback etc. This software avoids all these problems by automation. This software is developed for the proper functioning and its effective administration to support the activities of the institution. Usage of software in an educational institution is a quality improvement technique which improves the skills and connectivity of employees of the institution [Srinivas Rao et. al. (2015) and Aithal et. al. (2015<sup>a</sup>)].

## ABOUT SIMS

Srinivas Institute of Management Studies (SIMS) is an educational institution well known for imparting value based higher education in various disciplines. The mission of the college is to create and disseminate a new body of knowledge and make it available for those seeking challenging carriers in the area of management. It has its own office situated at Pandeshwar, Mangalore. The college runs three post graduate (PG) courses namely MBA, MSW & MCA and three under graduate (UG) courses BCA, BBM & B.Com. To have track of the immense work related with these six courses, the college developed an office automation system and many innovative technologies in its office. It is felt that to provide effective academic administration online software is essential in institutions like SIMS to provide required information to all stakeholders. Hence SIMS Academic Administration System (SAAS) is developed and introduced.

## AUTOMATION OF ACADEMIC ADMINISTRATION AT SIMS

The institution has introduced several innovations which are useful to create a positive impact on the services provided by the office for its stakeholders (Figure 1). One of the main implementations in this institution is providing software based services to the parents and students through SAAS. The software is to help the management and office staff to manage their day to day operations smoothly. This software increases the efficiency of the employees and reduces the manpower requirement of the institution. All the operations of the institution are in built in the software. SAAS will support the Principal, Staff (both teaching and non-teaching), parents and students. The parents can be made to know the required information of their son/daughter/ward by finger tips and the students can download the study materials, teaching plan, question bank etc. Industries can also get inform about suitable candidates through the information posted by placement cell. Since the SAAS is connected to internet, people in the society can also monitor the activities and innovations of the college.

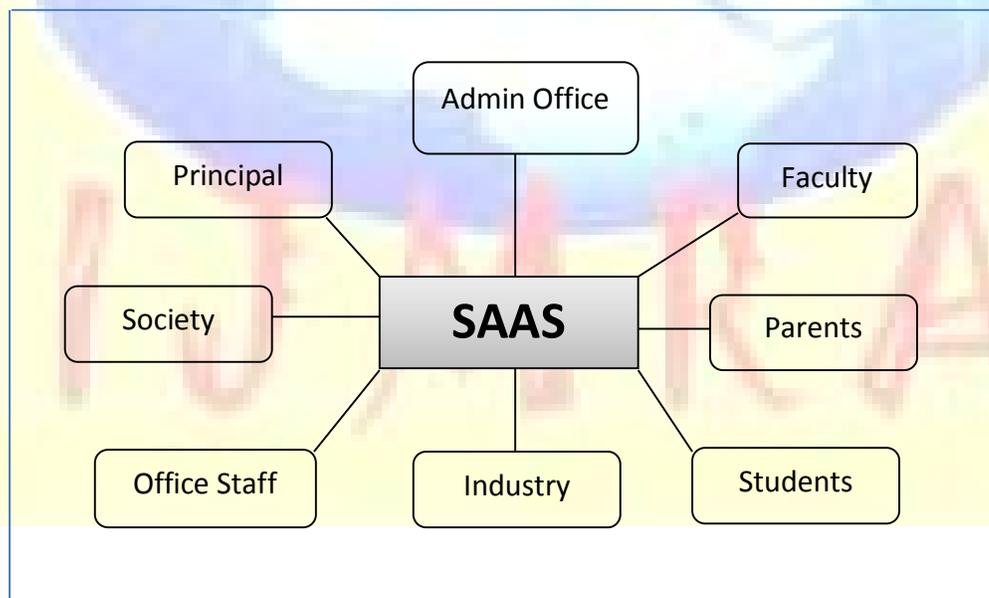


Figure 1: Details on the connectivity of the SASS with the stakeholders

## OBJECTIVES OF SAAS

SIMS Academic Administration System (SAAS) includes basic activities of the institution and information dissemination to the stakeholders. This software has the ability to share the information between more than one user simultaneously and hence is an example for groupware system. This is a multifunction information system which include online access to databases & data communication and widely used in the institution by all stakeholders. SAAS avoids the manual work and allows to work through computerized online facility. Multiple people can refer and update their data simultaneously in this system [Reshma et. al. (2015<sup>a</sup>)]. The following are the main objectives of SAAS :

1. To interconnect all stakeholders of the institution online for information exchange.
2. To provide quick academic and administrative information to its stakeholders.
3. To automate administrative, academic and office functions for quick, simple, easy and cost effectiveness.
4. To improve the effectiveness of teaching - learning process in the institution by providing innovative supports to students and staffs.
5. As a strategic tool to improve and gain competitive advantage in higher education system.

## FEATURES OF SAAS

(1) Students and staff list: This system includes details of the staff and students of institution. The information of staff and students is made available in this system. Course-wise as well as department-wise details are made available for the needy.

**ATTENDANCE DETAILS**

Enter RegisterNo :

Department :

Semester :

Month :

Figure 2 (a) : Screen view of attendance details of SAAS

DOWNLOADS		
Title	Form Name	Download
AppForms	 AppformSGC.pdf	 Download
Brochure	 brochure.pdf	 Download
Corp Form	 CorpBank.pdf	 Download
SBI form	 SBI.pdf	 Download
Synducate Form	 Syndicate.pdf	 Download

Figure 2 (b) : Screen view of Download details of SAAS

(2) Students Internal Marks : The institution will conduct 3 internal examinations every semester. The marks obtained by students in these two semesters will be entered using this software, thus helping the parents and students to know their academic progress.

(3) Students Attendance : At present SIMS is having 6 courses. Here course-wise internal marks will be entered every month. Parents of the students can keep track of the attendance without visiting the college.

(4) Other Details and downloading facility : SAAS includes study materials, teaching plan and question bank of each course. The students can download whenever they need that facility. SAAS provides facility to the stakeholders. Students, parents, faculties and other staff members can download the Study Materials, Question Bank, Teaching Plan.

(5) SAAS also provides updated Internal Marks, Results, Monthly updated Attendance, Information of individual student, Special events, Notifications, Exams etc. to the stakeholders.

Fig. 2 (a, b, c) shows the how to download required information from the SAAS menu.

Department Name	Semester	Subject Name	Title	Download
BBM	FIRST	ACC I	Accounting I	 Download
BCA	FIFTH	LAMP TECH	V SEM QBANK ALL	 Download
BCA	FIRST	FIT	Question Paper	 Download
BCA	FOURTH	E COMMERCE	E-Commerce Question Bank	 Download
BCA	FOURTH	SAD	SSAD Question Bank	 Download
MBA	FIRST	QUANTITATIVE ANALYSIS	Quantitative Technique	 Download
MBA	THIRD	ELECTIVE	consumer behaviour	 Download

Figure 2 (c) : Screen view of study material download details of SAAS

### ABCD ANALYSIS OF SAAS

Advantages, Benefits, Constraints and Disadvantages (ABCD) of a System can be used to analyze and understand the model/system in an effective way. As per this analysis technique [Aithal P. S. et. al. (2015<sup>b</sup>)], the effectiveness of a business model/concept/system can be studied by identifying and analyzing the advantages, benefits, constraints, and disadvantages by considering various issues like organizational objectives employers and employees perspective, customer/student perspective and environmental social perspective as in the block diagram of

issues affecting the SIMS Academic Administrative System (SAAS) software and is shown in fig. 1. The various factors contributing under the four identified constructs like advantages, benefits, constraints, and disadvantages are derived by a qualitative data collection instrument namely focus group method [Rogers E. M. and Hunt S. D. (1994), Morgan R. M. and Hunt S. D. (1994)] and the constituent critical elements supporting these factors are identified. Factors affecting SIMS Academic Administrative System are (1) Factors related to organizational objectives, (2) Factors related to administrative perspective, (3) Factors related to academic perspective, (4) Factors related to students service, and (5) Factors related to other stakeholders. Table 1 shows the framework of ABCD model in terms of advantages, benefits, constraints and disadvantages [Aithal et. al. (2015<sup>b</sup>)].

**Table 1 :** Analysis of SAAS using ABCD framework.

Particulars	Advantages	Benefits	Constraints	Disadvantages
<b>Principal</b>	Planning and management of work schedule	Smooth Administration	Minimizes direct contacts	High initial investment and regular maintenance cost
	Automating Manual work	Improvement in the institutional activities	Likely for errors	Limited period of service for innovation
	Innovative Technology	Easy to find students and staff details	Latent problems ignored	Difficult to maintain if technology keeps on changing with time
	Office environmental sustainability	Reduces the manpower	Loses attention to details	For limited staff members more time is required
<b>Office Manager</b>	Management of Administrative documents	Easy to monitor work processes	Reference becomes difficult	Difficult to integrate & manage all the courses
	Work will finish easily	Easy to manage administrative staff	No scope for creativity	There is too much stress of each course
	Maintain time schedule	Easy to find course details	Difficult to coordinate the	Insufficient Information

			work in specific time	
	System includes all the staff and students details	Eliminate the large staff requirement	Human error in the management of technology	Missing of additional details
<b>Office staff</b>	Avoiding mistakes	Students data storage and manipulation	Potential risks	Internet is necessary
	Work without stress	Time saves	Employees might find it difficult to operate	Cannot manipulate data once entered
	Systematic work	Effective data management	Constant power backup	Periodic update and Improvement
	Easy to take students data	Eliminate paper work	Displacement from work	Required initial training
<b>Faculties</b>	Student details once entered, cannot change	Improves the relationship between students and faculties	No time for allied works	Long time for initial data entry & set-up
	Anywhere updating the information	Shows the final results	Updating error	Speed of internet
	Easy to make Monthly report	Time saving	Emotional stress	Difficult to use for new staff
	Quick work	Immediate updating	Technology Limitations	Additional training for usage
<b>Students</b>	Easy to verify and user friendly	Avoids travels and saves time to get information	Reduces storage space due to any time download facility	Rural area students cannot use in their home due to internet requirement
	Downloading facility of study materials available	Providing quick services anytime anywhere	Standard format required	Parents get information on attendance and exam marks
	Less stress	All the information in one system	Long time required for login	Difficult to download sometimes due to internet speed
	Every month they can see updated information	Includes all the course students information	Limitations of Usage due to computer	Personal investment to purchase computer for 24 x 7

			requirement	usage.
<b>Society</b>	Minimizes information overload	Information in the finger tips	Difficult to use for uneducated people	Lack of computer knowledge in the society
	Aware of issues and problems	Easy to search	Society should aware of internet technology	Facing problems in usage

As per ABCD technique we have to identify and analyze various factors and critical constituent elements under (a), (b), (c), (d), (e).

**Advantages :** (a) Advantages from Organizations point of view, (b) Administrative Point of View, (c) Academic Point of View, (d) Students point of view, (e) Other stakeholders point of view, (f) Operational issues.

**Benefits :** (a) Benefits from Organizations point of view, (b) Administrative Point of view, (c) Academic Point of View (d) Students point of view, (e) Other stakeholder point of view (f) Operational issues.

**Constraints :** (a) Constraints from Organizations point of view, (b) Administrative Point of view, (c) Academic Point of View,(d) Students point of view, (e) Other stakeholder point of view, (f) Operational issues.

**Disadvantages :** (a) Disadvantages from Organizations point of view, (b) Administrative Point of view, (c) Academic Point of View,(d) Students point of view, (e) Other stakeholders point of view(f) Operational issues.

**1. Organizational Issues :**

Advantages of an administrative automation system SAAS based on organizational point of view are altering the nature of office work, improvement in speed of office work, efficient office work, and hence implementation of organizational objectives. The various benefits are wide range of computers used, effective management of information, implementation of planned applications, and standardization of activities. The organizational constraints are manpower shortage, resource limitations, total cost, and installation time. The organizational disadvantages include lack of popularity, inability to devote full time staff etc.

**2. Administrative Issues :**

The advantages of SAAS in terms of administrative issues like combination of various modules of the software, support activities, data communications, and technological support. The benefits on administrative issues of SAAS include training for new methods, increase of tasks, process office transactions, and easy usage by standardization. The administrative constraints are training of usage of SAAS, adjusting time during training along with regular work. The administrative disadvantages include cost and space constraints.

### **3. Academic Issues :**

The advantages of academic issues using SAAS include elimination of large staff requirement, multiple people can update the system, off traditional office work possibility and regular updates. The academic benefits include maintenance of records of the institutions, storage of all the information, easy to work, and learning atmosphere. The various academic constraints include time limitations and lack of students interest in systematic studies. The academic disadvantages of the system include reduced teacher and students interaction and many academic functions become mechanical.

### **4. Students Issues :**

The advantages of students issues using SAAS include availability of all information using a single click, downloading facility, update information, transparent system. The various benefits in student point of view are easy to download, information in finger tips, avoiding rush facility, and anywhere any time access. The constraints of SAAS for students include difficult to generate interest and not availability of individual personal systems. The disadvantages include requirement of individual system for every student and student effort required in usage.

### **5. Other Stakeholders Issues :**

The various other stakeholders of the college are Management, Parents of the students, Alumni, Industries, Affiliating University, and the Community. The advantages of SAAS for other stakeholders include anywhere usage, easy to identify required information from the college, and improve the knowledge of IT. The other stakeholders have benefits like obtaining clear information, build a brand & maintain quality. The constraints for other stakeholders include parents lack of interest, lack of concern from university etc. The disadvantages of SAAS for

other stakeholders include losing competition, brand building exercise.

### 6. Operational Issues :

Some of the factors affecting operational issues are Admission, Education - teaching & curriculum, Placement, Personality Development, Administration of services, Social responsibility etc. The SAAS provides advantages in operational issues like implementing office systems, providing IT environment, and administration models. The various benefits are higher level control, up-gradation of operations, interactive operative system, and less maintenance. The operative constraints of SAAS are no common place for utility and no genuine desire from some stakeholders. The disadvantages of SAAS from operational point of view include trained professionals requirement and 24×7 operational support.

### CRITICAL CONSTITUENT ELEMENTS AS PER ABCD MODEL

As per ABCD framework [Aithal P.S. et. al. (2015<sup>b</sup>) and Reshma et.al. (2015<sup>b</sup>)] for SAAS analysis, the factors affecting under organizational, Administrative, Academic, Students, and Other stakeholders issues are identified. The critical constituent elements of these factors are listed under the four constructs - advantages, benefits, constraints and disadvantages of the ABCD technique and tabulated in tables 2 to 5.

**Table 2 :** Advantages of SAAS

Sl. No.	Issue	Factors affecting	Critical Constituent Elements
1.	Organizational Issues	1. Altering the nature of office work 2. Development of office work 3. Efficient office work 4. Organisational objectives	Fast and efficient Standardization of activities Timely and regular communication
2.	Administrative Issues	1. Combination of software 2. Support Activities 3. Data Communications 4. Technological support	Software availability Technical support Newer fields
3.	Academic Issues	1. Eliminate the large staff 2. Multiple people can update 3. Off traditional office work 4. Regular update	Computer knowledge Knowledge sharing Instant information Learning environment
4.	Students Issues	1. Availability of all	Open System

		information's 2. Downloading facility 3. Update information 4. Transparent system	Sharing platform Easy access to information
5.	Other Stakeholders Issues	1. They can use anywhere? 2. Easy to Identify 3. Improve the knowledge of IT	Open access to information Organizational effectiveness Control on all stakeholders
6.	Operational Issues	1. Implementing office systems 2. I. T. Environment 3. Administration Models	Availability of electric backup Up-dation of software with change in time

**Table 3 : Benefits of SAAS**

Sl. No.	Issue	Factors affecting	Critical Constituent Elements
1.	Organizational Issues	1. Wide range of computers 2. Management of information's 3. Planned Application 4. Standardisation of activities	Investment on computers Investment on software up-dation Training office software
2.	Administrative Issues	1. Training for new methods 2. Increases of tasks 3. Process office transactions 4. Easy by standardization	Less time consumption Efficient and effective More operations simultaneously
3.	Academic Issues	1. Records of the institutions 2. Storage of all the information 3. Easy to work 4. Learning atmosphere	E-storage Long lasting information Multiple source of information
4.	Students Issues	1. Easy to download 2. Information in finger tips 3. Avoiding rush facility 4. Anywhere any time access	Common platform Less time consumption Regular information Knowledge sharing
5.	Other Stakeholders Issues	1. Provides clear information 2. Build a brand 3. Maintain Quality	User Friendly manual Ease of accessibility
6.	Operational Issues	1. Higher level function 2. Installation facility 3. Interactive operative system 4. Less Maintenance	Costly maintenance Regular up-gradation

**Table 4 : Constraints of SAAS**

Sl. No.	Issue	Factors affecting	Critical Constituent Elements
1.	Organizational Issues	1. Manpower Shortage 2. Resource Limitations 3. Cost 4. Installation time	1. Less manpower 2. Initial investment
2.	Administrative Issues	1. Training 2. Adjusting Time.	1. Qualified trainers 2. Newer requirements
3.	Academic Issues	1. Time Limitations 2. Lack of students Interest	1. Reliable information 2. Regular uploading
4.	Students Issues	1. Difficult to generate interest 2. Individual systems not available	1. Too transparent 2. Many require access to other information too
5.	Other Stakeholders Issues	1. Parents Lack of Interest 2. Lack of concern from university.	1. Too much information 2. Confusion
6.	Operational Issues	1. No common place for utility 2. No Genuine desire.	1. Power requirements 2. Backup facility

**Table 5 : Disadvantages of SAAS**

Sl. No.	Issue	Factors affecting	Critical Constituent Elements
1.	Organizational Issues	1. Lack of popularity 2. Inability to devote full time staff	1. Awareness' to be created 2. Too Costly.
2.	Administrative Issues	1. Cost money 2. Space constraints.	1. Skilled employees 2. Training by the right trainers
3.	Academic Issues	1. Teacher and students interaction reduced 2. Functions become mechanical	1. Emotional quotient less 2. Personalization reduced
4.	Students Issues	1. Individual system is required 2. put in effort	1. Time and concern by students 2. Too transparent
5.	Other Stakeholders Issues	1. Losing competition 2. Brand building exercise.	1. Knowledge on how to access information 2. Information clutter

6.	Operational Issues	1.Trained professionals 2.24*7 Operational support	1. Time consumption 2. Regular up-gradation
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Based on ABCD analysis for the system, SAAS, various factors affecting the issues of the system along with their constituent critical elements are identified and analyst. It is found that the factors supporting advantages and benefits are more effective compare to constraints and disadvantages of this system, so that SAAS may become more popular from the prospective of the administration and academic progress in the organization in the future.

### INDIGENOUSLY DEVELOPED SOFTWARE

With the direction and requirement planning by office administrators, the college (students & faculty) has developed an indigenus office management system software is known as SIMS Academic Administration System (SAAS) which has facilities like updating of attendance, internal marks, academic records of students & parents, study materials, teaching plan, question bank, notifications, special events, results etc. This is reduces the manual work and all documents are maintained as soft copy in the database of the system. The office automation system has the following modules with the input and output details.

#### (a) Login Module

Users can use some of the features of the application only after logging in to the system. For this the user has to fill in the user name and password. On logging in, the page is redirected to the main page.

#### (b) Common User Module

This module can be used by anyone without logging into the system. It include various information about the institution including courses, facilities, admission requirements, contact details, student attendance& mark details study materials, notifications etc.

#### (c) Admin Module

This module consists of various activities like Courses, Subjects, Department Name, Semester Name, Month, Batch, Qualification, Placement Details, Student Name, Year, Eligibility,

Interview Location, Upload Photos, Reset Admin Details, College Holidays, University Exams, Special Events, Upload Forms, Fees Structure etc.

**(d) Staff Module**

This module consists of various activities like Academic record of new students, parents, phone numbers, details of sending messages, additional fees etc.

**(e) Faculty Module**

This module provides facility for the faculty members like updating attendance, internal marks, uploading study material, Teaching Plan etc.

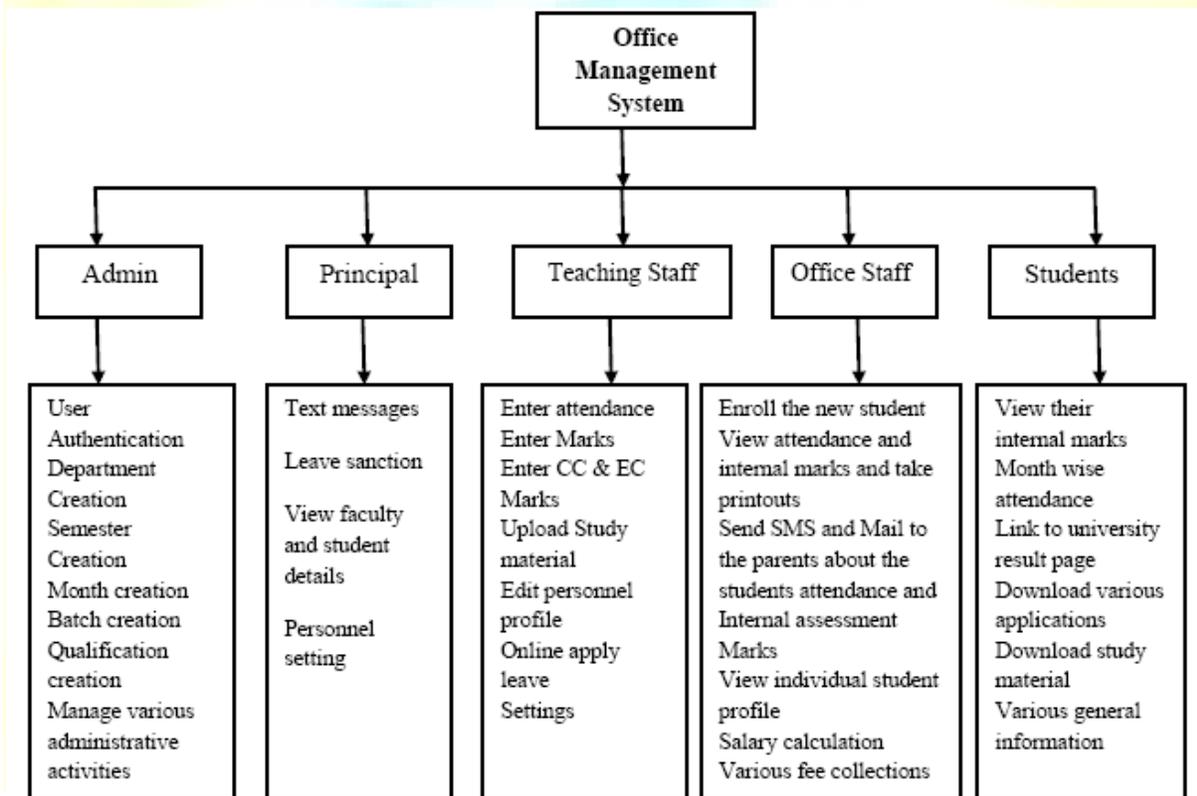


Figure 3: The diagrammatic representation of SIMS Academic Administration System (SAAS)

**(f) Principal Module**

This module consists of various activities like View details of Staff and students, Leave details, Complaints, Principal details etc.

The block diagram of SIMS Academic Administration System (SAAS) which integrates various stakeholders is shown in fig.3. The college has its own website [www.srinivasgroup.com](http://www.srinivasgroup.com). The office notices displayed in the college notice boards & circulars sent to the classes are displayed in the college intranet and college website. The college also display information related to examination, assignment, results of university examination in the college website.

## CONCLUSION

We have studied the necessity, objectives and the features of SIMS Academic Administration System (SAAS). The system supports the students progress with appropriate intervention based upon a detailed knowledge of individuals. SAAS include and lead to the complete progress and personal development of each individual. The system is able to cultivate a partnership particularly with parents, business and the community as a whole to support a students learning and progress. The automated systems provide immediate solutions to the user requirements. The usage and wastage of papers are reduced. The various stake holders can get the up to date information using the automated system.

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