CONTENT

1. GZRSC MIS

INTRODUCTION

MIS is a formal system for providing management with accurate and timely information necessary for decision-making. It may be defined as a planned and integrated system for gathering relevant data, converting it in to right information and supplying the same to the concerned people. The main purpose of GZRSC MIS is to provide the right information to the right people at the right time.

Data is very important in many ways for improving life, making informed decision, for predicting future possibility, for monitoring an organization, for finding problems and solutions. It increases efficiency, and keeps track of it all and makes the best utilization of resources available. However, managing big and crucial data is on another path. With the absence of technology, it requires a lot of manual works and systematic coordination in order to have a reasonable analysis of data set. High availability of data is todays' standard of business model which is completely impossible without the use of MIS.

GZRSC MIS is a customized solution for managing internal marks and semester grade cards of students in BSc, BSc (Home Science) and BCA. It also keep records of the students' profile. It empowers lecturers to manage regular tasks such as adding students, entering internal marks and attendance, automating internal result preparation in the best and most efficient way possible and without the limitation of time and geographical boundaries. Semester Grade cards can be imported into the MIS hassle free. The outgoing students who are seeking admission into University outside the state can make use of the data for verifying their grade cards online. Data in soft form can be analyzed in various convenient ways. As such, MIS simplifies recording, taking, searching, filtering, importing and exporting of the student data.

STUDENT PROFILE

Student data could be recorded in two ways: by entering each student details in the user-friendly *Add New student* form in the MIS or by directly importing it from an excel

sheet. Once a student's details are saved, the MIS can make use of the record for the data used in internal mark, attendance entry and semester grade card. The student profile in the MIS is like below:

When you click the Export button, the profile is exported to Excel and is print ready: See below:

Govt. Zirtiri Residential Science College

PERSONAL INFORMATION			
Student's Name	Ramthansanga		
Sex	Male		
Date of Birth	08-02-2000		
Blood Group	O		
Aadhaar No			
Category	ST		
Religion	Christian		
Present Address	Armed Veng, Aizawl		
Permanent Address	Armed Veng, Aizawl		
Contact	9856659010	Origin	
Email		Mizoram	
Father's Name	Lallawmkima	Disability	
Father's Contact	9856584585	No	
Mother's Name	Ramthanpuii	Note	
Mother's Contact			
Guardian		Age as on 21-04-2021	
Guardian Contact		21	
ADMISSION INFORMATION			
Stream	BSc	University Registration	
Semester	First Semester	MZU6854	
Batch	2018	Record Date	
Department	Physics Department	21-04-2021	
		Roll No	1254MZU
SUBJECTS TAKEN			
English	Physics	Chemistry	
Mathematics	Physics PR	Chemistry PR	

The profile once recorded can be viewed instantly with the touches of your fingertip even after many years as long as the MIS is online. The same student's profiles for each semester are stored seperately. Whenever the student changes his/her semester, a new profile is automatically created for his/her new semester. The profile can be updated, deleted as necessary by the super admin.

STUDENT LIST & SEARCH

The student list can be easily accessed. The list has a versatile search functionality which can be used to search a student by his name, stream, semester, batch, Roll no., University Registration No., his father name, his mother name, ...etc. You can print and export the list to excel or directly copy it in your pasteboard. List can have sometimes many columns, which could probably be problematic for viewing in small devices such as mobile phones. The MIS is developed with responsive technology and progressive web application (PWA) in mind that the design responds with the best possible viewing experience you could enjoy. In short, the app responds with your viewport and devices.

The search and filter plays a very important role when data is in soft form. Therefore, apart from the search functionality mentioned above the MIS still has two other ways of searching and filtering students' data. The first one is the search function in the navigation. See below:
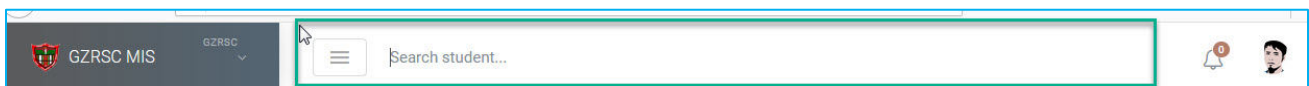
Here you can search the student by his/her name, rollno, ID No., father, mother, phone no. You may ask yourself how this can be possible with a single search input field. You are right. Here we integrated a filter mechanism which allows to search with the other options. For instance, you want to search the student by his Roll No, *simple type* `rollno:542` *considering 542 as his Roll no*. See the doc for further information.

Another option available for searching the student is Search Student in the Student menu. This search and filter is different from the other methods already mentioned. It combines the filters for searching the students and returns the result from the combination of the filters. See below:
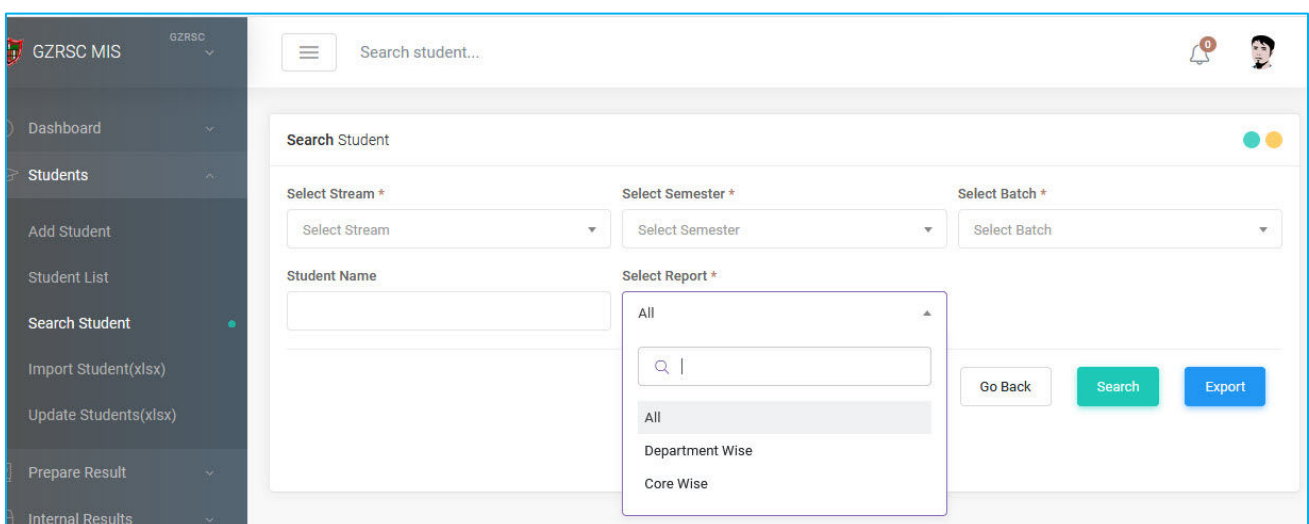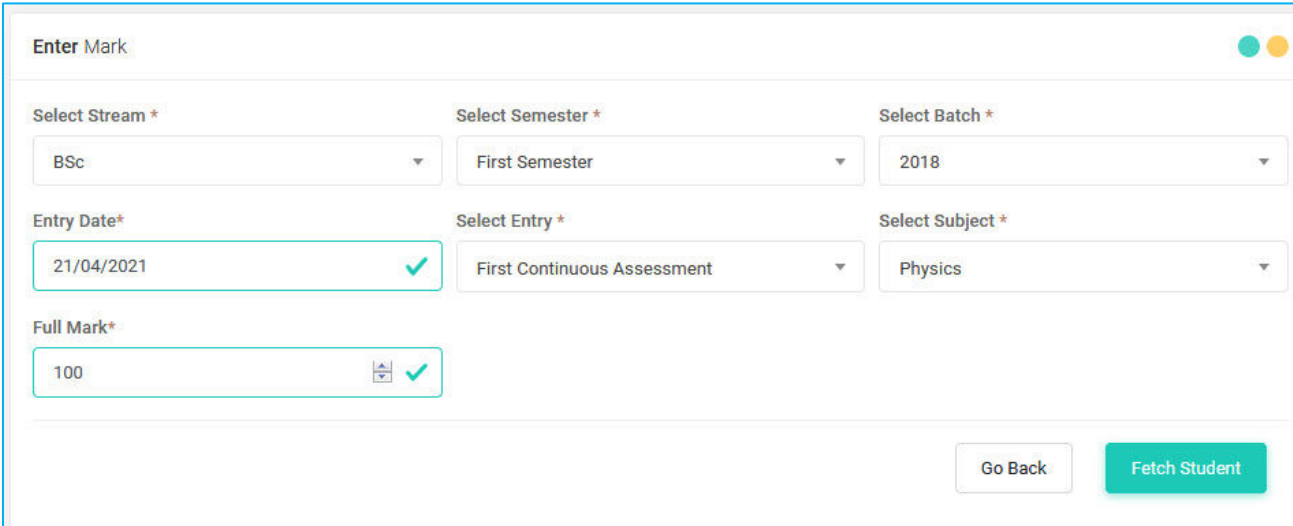
This functionality makes it obligatory to select the stream, semester, batch and the type of report. The returned result can be quickly exported to Excel (print ready). We are here usually mentioning print-ready. By print-ready, we mean the data can be directly printed without further modification. Most of the software companies do not implement excel export with print-ready feature. As such users are forced to do any modification such as adjusting paper and margins, changing font, beautifying the sheets which could be very much time consuming. So we come up with the idea of print-ready. The software does the print design for you. More time saves more money.

INTERNAL RESULT & ATTENDANCE

Big and Heavy companies are heavily using excel for managing their data. The consequence is heavy loss because excel lacks data quality and validity checks; it has no way to track user access and changes; with no security control and inefficient collaboration features, it has quite a hidden risk. Our MIS has data validation. It can check and validate even the marks you entered in an excel sheet for importing it into the MIS. It can track who entered the data. Talking about security, without valid credentials, not to speak of entering data, no one can see the MIS dashboard. Every data entered and request posted is encrypted using standard SSL (Secure Socket Layer); and every request is served over http/2.0 protocol with industry standard security headers.

The MIS has a very friendly ways of recording students' internal mark. Firstly, you can directly enter the students' mark from the Enter Mark form. See the form below:

The other method is by importing an excel sheet. See the form below:

Attendance has the same feature like the internal mark entry but it has a different interface for entering or importing attendance data. See the attendance form interfaces:

For Entering Attendance Data:

For Importing Attendance Data:

Attendance data and marks recorded can be updated and deleted according to your likes. Since the MIS track every change you make, you can always check and track what you have done to your data. Marks and Attendance data recorded are so important that you need the super admin credentials to delete existing records.

All the required calculations are done by the system when a user (presumebly a lecturer) generates the attendance report or internal result. It calculates the students ranking, percentage, total mark scored etc. The report or result can be exported to excel as well for further analysis. As the system is online, a lecturer can enter, generate and see the report even on the heavenly bed at the mercy of his digital friend of smartphone just before a night of restorative sleep.

SEMESTER GRADE CARDS

Outgoing students seeking admission in the university within the country or abroad can seamlessly verify their semester grade cards online from wherever internet access is possible. The student by entering their university Roll no or Registration No can do the verification. See the interface below:

The MIS checks and validate the Roll No. or Registration No. being entered and if it finds the matching records, it will display the semester grade card. Every grade card being verified is recorded in the MIS for further analysis of the data.

Users

Lecturers, Principal and Students can use the MIS. The student can use it for verifying their semester grade cards online. Lecturers can use it for managing students' profile, internal marks, and attendance records. Principal or Super Admin can use it for analyzing students profile, attendance, internal results and other reports. Super Admin can delete everything in the MIS. As such, Super Admin is usually the Principal or a lecturer whom the principal give the charge on his behalf. Lecturers must have an email and password registered with the MIS in order to use it.

After each successful login, the Principal and Lecturer will be welcomed a very informative dashboard. See the desktop screenshot below:
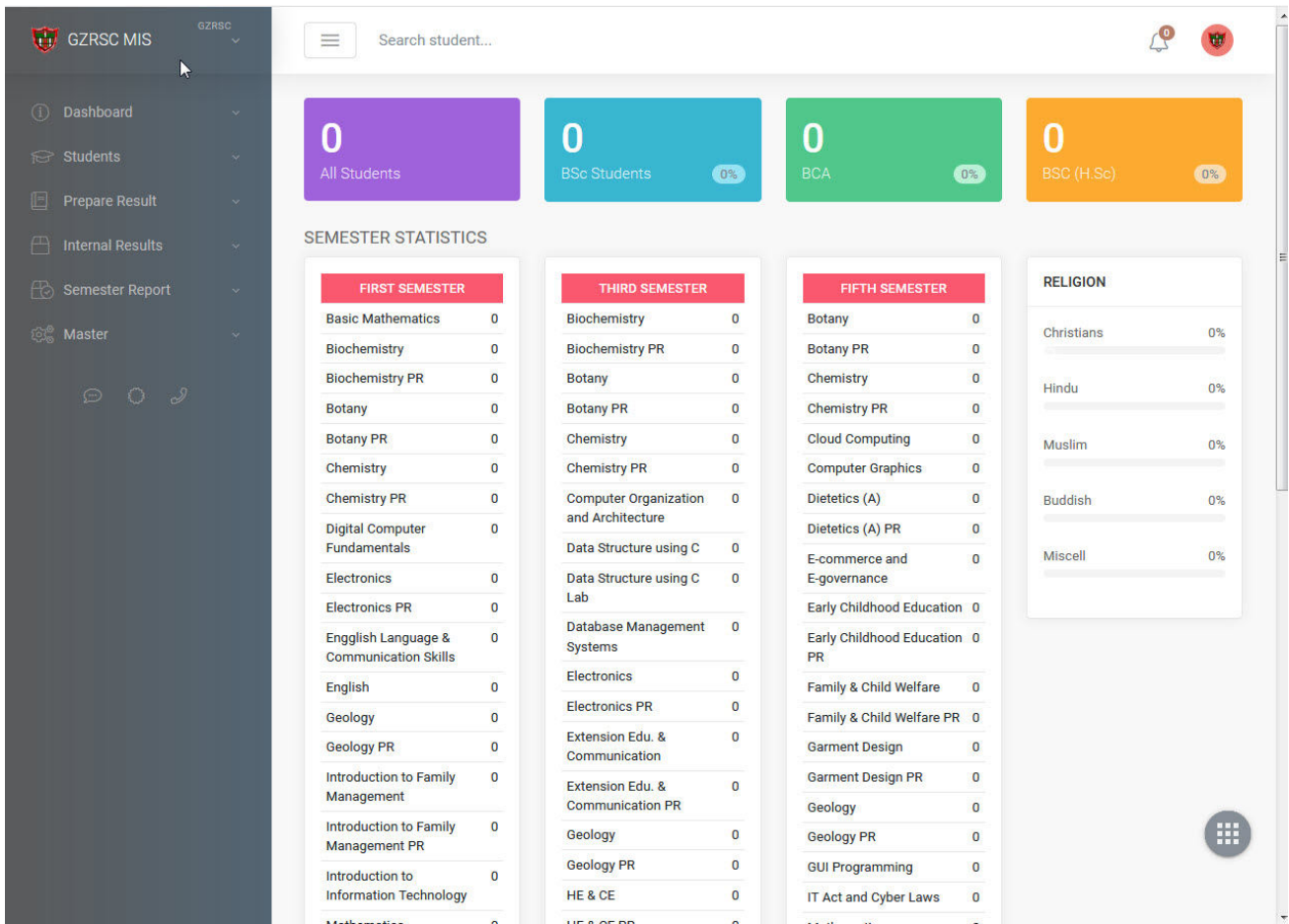
See the mobile view screenshot below:
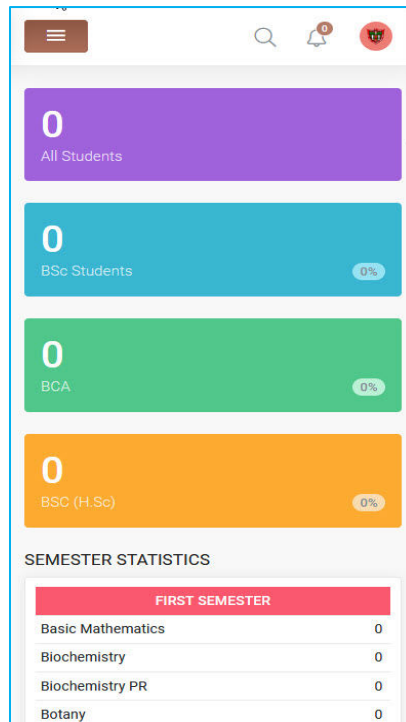
2. ICT INFRASTRUCTURE/FACILITIES

LIST OF ICT INFRASTRUCTURE / FACILITIES (HARDWARE)

SlNo	Department	Desktop Computer	Laptop	Projector	Printer (LASER & INKJET)	Xerox Machine	UPS	Scanner	Stabilizer	Network Switch	Woofer	Head Phones	Modem	CCTV	Lamination machine	Barcode Laser Scanner
1	Biochemistry		1	1												
2	Botany			1												
3	Chemistry			1			2									
4	Computer Science	37	1	5	1	1	2		2	3	2					
5	Electronics	1	1	2			1									
6	English	20	4	1					1			20				
7	Geology	3	1	2			3									
8	Home Science			1												
9	Mathematics	10		1	2											
10	Physics	10	1	4	1		10									
11	Zoology			3												
12	RUSA		2		1		1									
13	Exam Dept	2			2	1	2	1	1		1		1			
14	IQAC	1	2													
15	Office	4			2	1	4		1							
16	Professors' Room	2		1												
17	SU Office	1														
18	Alumni Office	1														
19	Library	9			1	2	9							1	1	2
20	Principal		1										1			
21	Radiation Laboratory	3			1		2				1					
	TOTAL	**104**	**14**	**23**	**11**	**5**	**36**	**1**	**5**	**3**	**4**	**20**	**2**	**1**	**1**	**2**

LIST OF ICT INFRASTRUCTURE / FACILITIES (SOFTWARE)

SlNo	Department	MIS	TINA v10	Sanako	AIMIL Daq v1.1	Geostar v 3.01	QGIS v 3.22	Surfer v 15	Libre Office	XAMPP	Turbo C++	Ubuntu	Fortran Compiler	SOUL 2.0
1	Biochemistry													
2	Botany													
3	Chemistry	1												
4	Computer Science	1							37	37	37	37		
5	Electronics		1											
6	English			12										
7	Geology				1	1	1	1						
8	Home Science													
9	Mathematics										10			
10	Physics										10		10	
11	Zoology													
12	RUSA													
13	Exam Dept													
14	IQAC													
15	Office													
16	Professors' Room													
17	SU Office													
18	Alumni Office													
19	Library													1
	TOTAL	**2**	**1**	**12**	**1**	**1**	**1**	**1**	**37**	**37**	**57**	**37**	**10**	**1**