Best Practices II

Title of the Practice

Fostering Growth by Offering Real-Time Application Development Opportunities to Students on Campus

Objectives of the Practice:

- **Enhance Practical Skills:** The primary objective of this practice is to equip students with hands-on experience by integrating real-time problem-solving skills.
- **Bridge Theory and Application:** To integrate theoretical knowledge with practical applications by encouraging students to work on real-time projects that address institutional needs.
- **Develop Critical Thinking:** To foster creativity, innovation, and analytical skills by presenting students with real-time challenges that require effective solutions.
- **Contribute to Institutional Development:** To develop projects that are directly used by the department or institution, thereby enhancing institutional processes and systems.

The Context: Traditional learning methods often focus on theoretical knowledge, with limited exposure to practical applications. In programming and technology-related fields, students benefit most when they can apply concepts in real-world scenarios. To bridge the gap between theory and practice, this initiative was designed to offer students the opportunity to work on projects directly related to departmental or institutional needs. **These projects not only align with the curriculum but also contribute to the on-going development and functioning of the college, creating a symbiotic relationship between learning and operational improvement.**

Evidence of Success: The success of this practice is evident in the numerous real-time projects developed and deployed by students that are currently being used by the institute which are listed below:

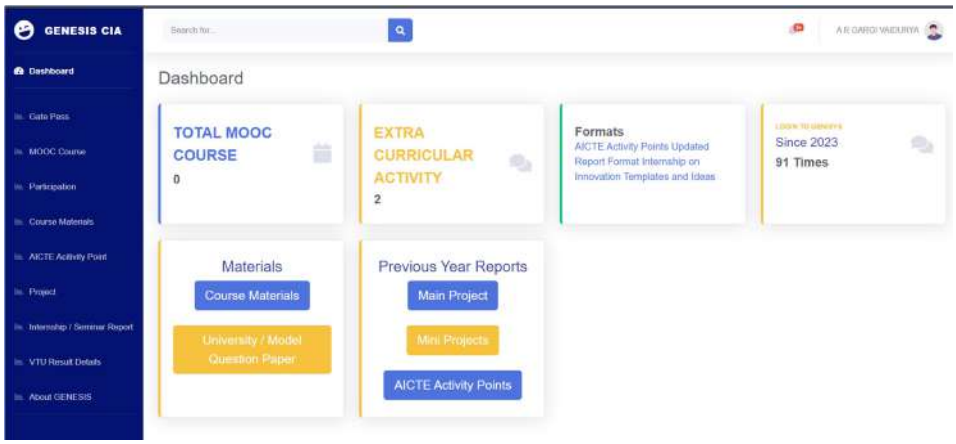
1. **GENESIS- GSSS Enthusiastic & Excellent Student Staff Information System** – An ERP to digitalize most of the Department requirements

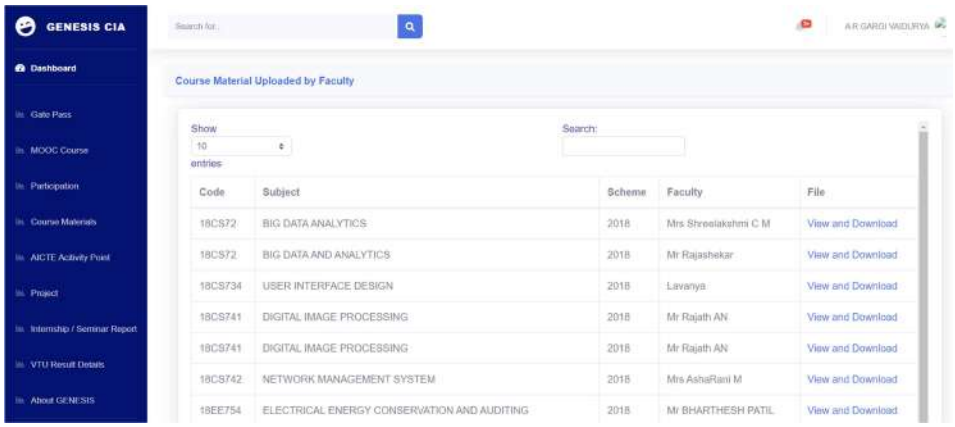
   Students / Staff Contributors for this ERP for the Modules in use:

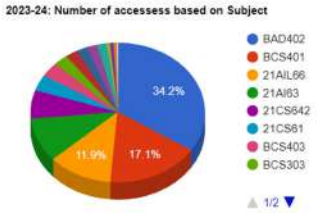
   - Lavanya Prakash Rudraswamimath (4GW18CS036) and Likhitha S D (4GW18CS037)- developed a Course Materials Management System Module
   - Amrutha P(4GW18CS005) and Naidile S (4GW18CS058) - Student Achievement Management System Module
   - Pavithra L.R (4GW18CS067) and Prathiksha S (4GW18CS072) - PO's and PSO's based Feedback Management System Module
   - Pooja M R (4GW18CS068), Shrivani S (4GW18CS102) – MOOC Course Management
   - Adithi P, 4GW19CS001, Student Project Management System
   - Kavyashree A, 4GW19CS043, Kavana.A 4GW19CS041 - AICTE activity point management
   - Soujanya P Desai (4GW19CS106)and Sushmitha H K (4GW19CS112) – Student Profile Management
   - Shilpa, (4GW20CS406)- Faculty Profile Management
   - Kruthika MN and Madhushree S, CSE, - Result Analysis Module
   - Ananya Kadiam (4GW21CI004) (AIML) Gunashree P (4GW21CI012) (AIML),Chaithra M N (4GW21CI009) (AIML) - Search bar for Student Achievements
   - Harshitha BG (4GW21CI013-AIML), Harshitha KM -(4GW21CI014-AIML) - Univeristy Question Paper Upload
   - Access to All Report with View Counts - Dr. Manjuprasad B
   - (ISE) Department Inventory Management System - Deepthi Prakash (4GW19IS017), Lavanya R (4GW19IS031), Monisha B (4GW19IS040), Moulya G (4GW19IS041)
   - (ISE) Advanced Framework for Placement Automation System Nanditha S (4GW18IS044), Pranitha S (4GW18IS048), Rachana M L (4GW18IS049), Rachana Vijay (4GW19IS050)

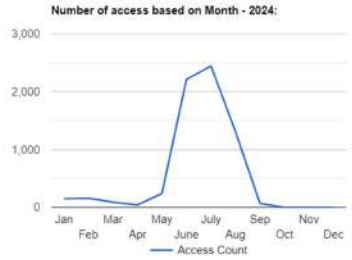
- All these modules are Integrated and Deployed by Dr. Manjuprasad B, Professor, Dept. of CSE(AI&ML)
- Technical Support and Deployment Assistance by Mr. Mahadevappa N, System Analyst and his Team

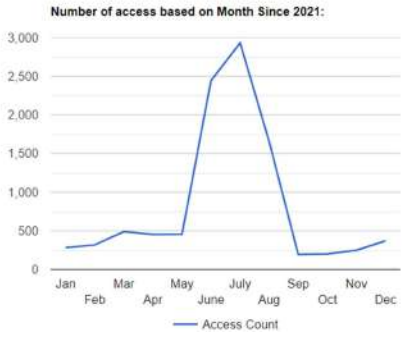
Screenshot of GENESIS

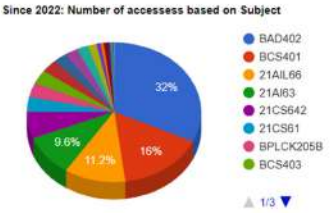












Student Project Evaluation

BID	Name	USN	Title	Type	Subject	Guide	Operation
2023B04	LAVANYA R	4GW19IS031	Smart inventory management using machine learning	Final Year Project	Computing	Dr. Manjuprasad B	View -Mapping- -Evaluate-
2023B12	NANDITHA S	4GW19IS044	Advanced Framework for Student Placement Automation System	Final Year Project	Computing	Dr. Manjuprasad B	View -Mapping- -Evaluate-
B04	MANASI N S	4GW18CS043	Campus Club Management and News Recommendation System using Web Scraping	Final Year Project	Machine Learning	Dr. Manjuprasad B	View -Mapping- -Evaluate-
B31	Nameera Banu	4GW19CS409	Using LoRa technology to monitor and control sensors in the green house	Final Year Project	IoT	Dr. Manjuprasad B	View -Mapping- -Evaluate-

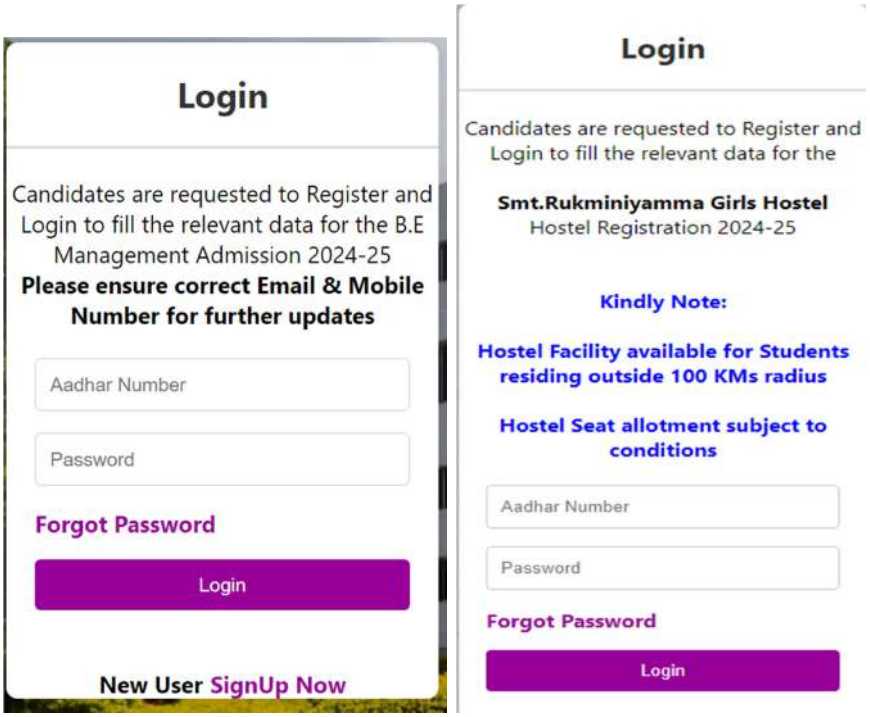
Student Mini-Project

BID	Name	USN	Title	Type	Subject	Guide	Operation
2023AIMLB01	SAHANA K R	4GW21CI037	IA Question Paper Review System	DBMS-MINI-PROJECT	DBMS	Dr. Manjuprasad B	View
2023AIMLB02	ANANNYA PS	4GW21CI002	Text Summarizer	ML Mini	Machine Learning	Dr. Manjuprasad B	View
2023AIMLB03	SUSHMITHA G	4GW21CI049	Department Dashboard SAINA	DBMS-MINI-PROJECT	DBMS	Dr. Manjuprasad B	View
2023AIMLB03	RAZIA ROSHAN	4GW21CI035	Online No Due Management	DBMS-MINI-PROJECT	DBMS	Dr. Manjuprasad B	View

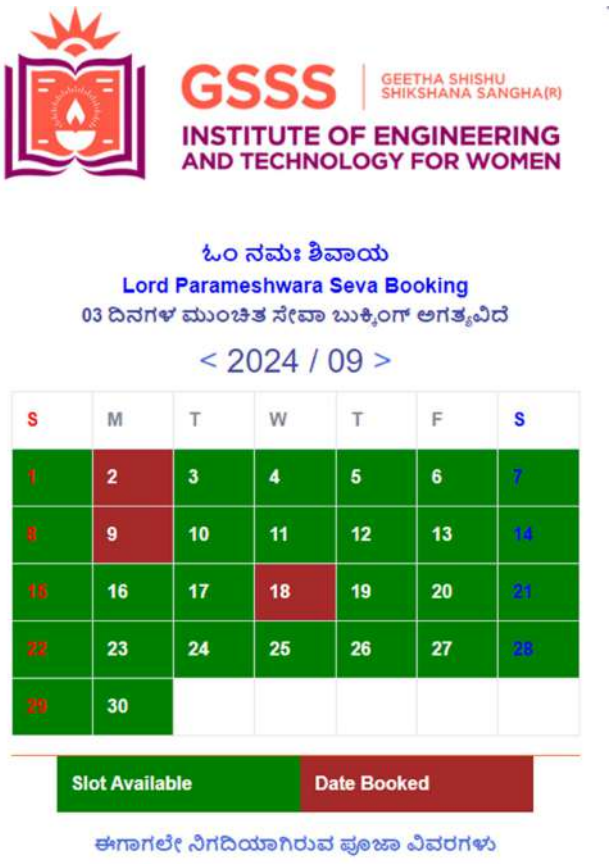
Your Course Materails

Subject	Code	Sem	Scheme	Academic Year	Dept	File	Status	Action
Machine Learning - Module 5 Full	21AI63	6	2021	ODD 2024	AIML		Course Material Approved	
Operating System - M1 2023 Batch	BCS303	3	2022	ODD 2024	AIML		Course Material Approved	
RMI	21RMI56	5	2021	ODD 2023	AIML		Course Material Approved	
RMI	21RMI56	5	2021	ODD 2023	ISE		Course Material Approved	
RM Module 1 and 2	21RMI56	5	2021	ODD 2023	AIML		Course Material Approved	
Operating System	BCS303	3	2022	ODD 2023	AIML		Course Material Approved	
Operating System	BCS303	3	2022	ODD 2023	AIML		Course Material Approved	
RMI- Module 2 3 4	RMI	5	2022	ODD 2023	AIML		Course Material Approved	

2. B.E Management Admission and Hostel Registration 2024-25



3. On Campus Temple Seva Booking with auto email Notification



4. **Hostel Mess Bill Generation**

Current Active Student - Total 618

A Block - Total 36 | B Block - Total 82 | C Block - Total 219 | D1 Block - Total 62 | D2 Block - Total 204 | DOM - Total 0/30

Show 10 entries

Search:

Sl.No.	USN	Name	Room	Department	Current Balance	Edit	Vacate
1	4GW22IS404	RAMYA S S	A-002	IS	971	Edit	Vacate
2	4GW22EC424	SONALI SHANKAR BHAGAI	A-002	EC	2093	Edit	Vacate
3	4GW22EC407	DANESHWARI G MANIYAL	A-002	EC	3781	Edit	Vacate
4	4GW21CS018	BHOOMIKA K P	A-003	CS	1253	Edit	Vacate
5	4GW21EC065	KEERTHANA B K	A-003	EC	1283	Edit	Vacate
6	4GW22BA061	NANDITHA M	A-211	MBA	9090	Edit	Vacate

5. **Bulk ID Card Generating Application using Web Technology**
6. **Online Examination System :** Customized FOSS examination application for conducting various online test for MBA Entrance
7. **Many minor contribution using Technology has been contributed by Students and Faculty**
8. Regal Volta is a four wheeler electric vehicle can carry up to 600kg(Dead weight of 300kg) of weight with range of 60-80kms in single charge with a cost of 10 paise per kilometer.

Problems Encountered and Resources Required: One of the primary challenges faced during the implementation of this practice was ensuring that students had adequate exposure to real-world problems and sufficient guidance to handle complex projects.

Other Challenges:

- **Limited Project Scope:** Students successfully developed projects that addressed specific cases, but these solutions were not comprehensive enough to handle all scenarios.
- **Inadequate Testing for Edge Cases:** Students struggled to test all possible scenarios required by the client, which limited the reliability of their solutions.
- **Access to Business APIs:** Students faced challenges in obtaining access to essential business APIs, such as WhatsApp and SMS services, which are critical for their projects.
- **Time Constraints:** Due to time limitations, students were only able to create prototypes rather than fully deployable solutions, hindering the overall impact of their projects.
- **Complex Deployment Training:** Students found it difficult to acquire the necessary skills for deploying complex applications, highlighting the need for more training in this area.

Resources Required:

Technical Infrastructure:

- **Development Tools and Software:** Access to programming languages, integrated development environments (IDEs), and version control systems (e.g., Git, GitHub).
- **Servers and Hosting:** Resources for hosting applications and deploying real-time projects, such as cloud services (e.g., AWS, Google Cloud, or Microsoft Azure).
- **Database Access:** Databases and management systems for storing and managing project-related data (e.g., MySQL, PostgreSQL).

Mentorship and Guidance:

- **Faculty Mentorship:** Dedicated faculty members or industry experts to guide students throughout the project lifecycle, including design, development, and deployment phases.
- **Workshops and Training:** Regular training sessions on relevant tools, technologies, and best practices for project development and deployment.

Testing and Debugging Tools:

- **Test Environments:** Access to testing platforms where students can simulate different scenarios and test their applications for edge cases and real-world use.
- **Debugging Tools:** Debugging software and tools to help students identify and resolve issues efficiently.

Financial and Institutional Support:

- **Funding:** Budget allocation for tools, software licenses, cloud services, and other resources required for successful project execution.
- **Institutional Backing:** Support from the administration to encourage collaboration between departments, providing access to institutional data or systems where necessary for project integration.

Principal
Principal
GSSSIETW, Mysuru-16