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Student Information System with Working

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Abstract*—Student Information System provides a simple interface for maintenance of student information. It can be used by educational institutes or colleges to maintain the records of students easily. The creation and management of accurate, up-to-date information regarding a students' academic career is critically important in the university as well as colleges. Student information system deals with all kind of student details, academic related reports, college details, course details, curriculum, batch details, placement details and other resource related details too. It tracks all the details of a student from the day one to the end of the course which can be used for all reporting purpose, progress in the course, completed semesters, years, coming semester year curriculum details, exam details, project or any other assignment details, final exam result and all these will be available through a secure, online interface embedded in the college's website. It will also have faculty details, batch execution details, students' details in all aspects, the various academic notifications to the staff and students updated by the college administration. It also facilitate us explore all the activities happening in the college, Different reports and Queries can be generated based on vast options related to students, batch, course, faculty, exams, semesters, certification and even for the entire college.

***Keywords*—Student Information System, Purpose, Objective, Data Flow Diagram, Detailed Flow Graph**

I. INTRODUCTION

The design and implementation of a comprehensive student information system and user interface is to replace the current paper records. College Staff are able to directly access all aspects of a student's academic progress through a secure, online interface embedded in the college's website. The system utilizes user authentication, displaying only information necessary for an individual's duties. Additionally, each sub-system has authentication allowing authorized users to create or update information in that sub-system. All data is thoroughly reviewed and validated on the server before actual record alteration occurs. In addition to a staff user interface, the system plans for student user interface, allowing users to access information and submit requests online thus reducing processing time. All data is stored securely on SQL servers managed by the college administrator and ensures highest possible level of security. The system features a complex logging system to track all users' access and ensure conformity to data access guidelines and is expected to increase the efficiency of the college's record management thereby decreasing the work hours needed to access and deliver student records to users. Previously, the college relied heavily on paper records for this initiative. While paper records are a traditional way of managing student data there are several drawbacks to this method. First, to convey information to the students it should be displayed on the notice board and the student has to visit the notice board to check that information. It takes a very long time to convey the information to the student. Paper records are difficult to manage and track. The physical exertion required to retrieve, alter, and re-file the paper records are all non-value added activities.

This system provides a simple interface for the maintenance of student information. It can be used by educational institutes or colleges to maintain the records of students easily. Achieving this objective is difficult using a manual system as the information is scattered, can be redundant and collecting relevant information may be very time consuming. All these problems are solved using online student information management system. The paper focuses on presenting information in an easy and intelligible manner which provides facilities like online registration.

II. LITERATURE REVIEW

Notably, student information system or SIS incurs such application software designed for educational establishments to manage student data. Student information systems provide capabilities for entering student test and other assessment scores, building student schedules, tracking student attendance as well as managing many other student-related data needs within the institution university. Thus, many of these systems applied in the Philippines can be scaled to different levels of activity and can be configured by their home institutions to meet local needs. Moreover, before universities have created their own bespoke student record systems, but with growing complexity in the business of educational establishments, organizations now choose to buy customizable within the shelf software. It can be that, modern student information systems are usually server-based, with the application residing on central

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computer server and are being accessed by client applications at various places within and even outside the school. During the year 1990s, student information systems have been changing and are fast adopted through the presence of a web medium as a channel for accessing SIS without any hassle upon viewing student details and information.

III. PURPOSE

The purpose is to design a college website which contains up to date information of the college. That should improve efficiency of college record management.

IV. OBJECTIVES

A. Providing the online interface for students, faculty etc.
B. Increasing the efficiency of college record management.
C. Decrease time required to access and deliver student records.
D. To make the system more secure.
E. Decrease time spent on non-value added tasks.

V. SYSTEM DESIGN

This deals with data flow diagram, detailed flow graph, requirement analysis, and the design process of the front and back end design of the student information system.

A. Data Flow Diagram

A Data Flow Diagram (DFD) is a graphical representation of the "flow" of Student Information System. A data flow diagram can also be used for the visualization of Data Processing. DFD shows the interaction between the system and outside entities. This context-level DFD is then "exploded" to show more detail of the system being modelled. A DFD represents flow of data through a system. Data flow diagrams are commonly used during problem analysis. It views a system as function that transforms the given input into required output. Movement of data through the different transformations or processes in the system are shown in Data Flow Diagram of Fig. 1.

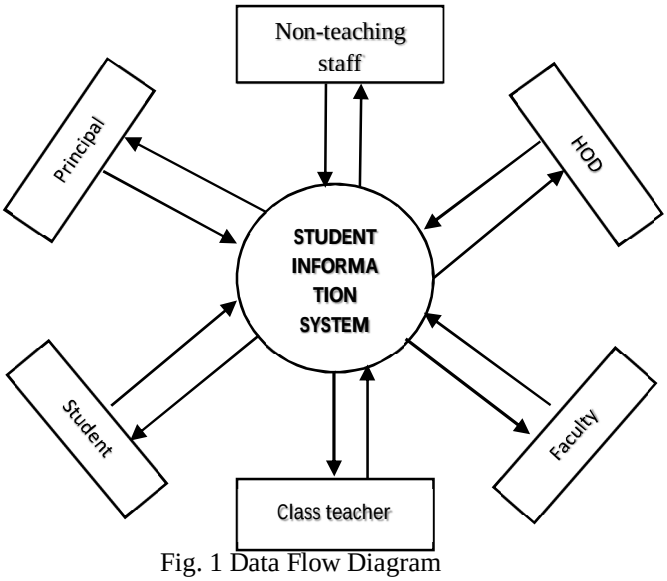

Fig. 1 Data Flow Diagram

B. Detailed Flow Graph

In this hierarchical representation is given regarding the student information system. The detailed flow graph is shown in Fig. 2 .The design of the student information system include invent of the home page which give the technique for all the students, organization and other client to access the SIS. All customer of the SIS has a single username and password provided by the web master of the institution. The home page mainly contains a login form through which a new user can register, or an active user can login to the system by incoming the username and password provided by the web master.

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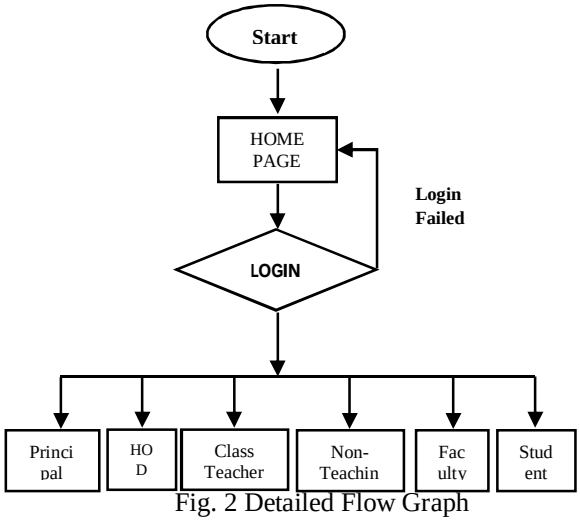

Fig. 2 Detailed Flow Graph

1) Principal: The principal is responsible for entering the new faculty, assigning HOD to each and every department. Principal can view his/her profile, also can view and change notification regarding to the college. Principal can also view the details of students, faculty members, HOD's and nonteaching staff. Principal can directly search a particular student.

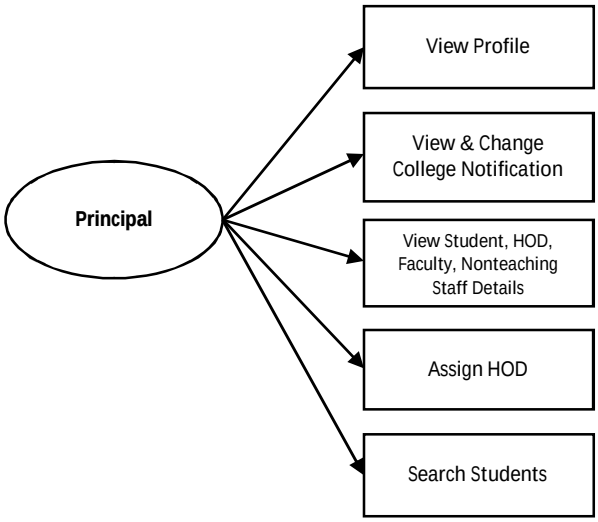

Fig. 3 Principal's Detailed Flow Graph

1) HOD: The Head of Department can view and update the notification for student and faculty, also view his/her profile. HOD can check details of students, faculty members and nonteaching staff. HOD can also assign the class teacher for each and every class. HOD also searches a particular student directly.

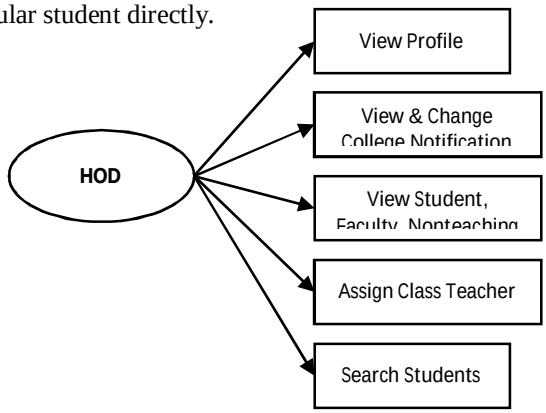

Fig. 4 HOD's Detailed Flow Graph

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2) Class Teacher: The class teacher can view his/her profile, view all notifications of college. Class teacher can view and make changes in data of student. Without verification of class teacher the data of will not be updated. Class teacher can search a particular student directly.

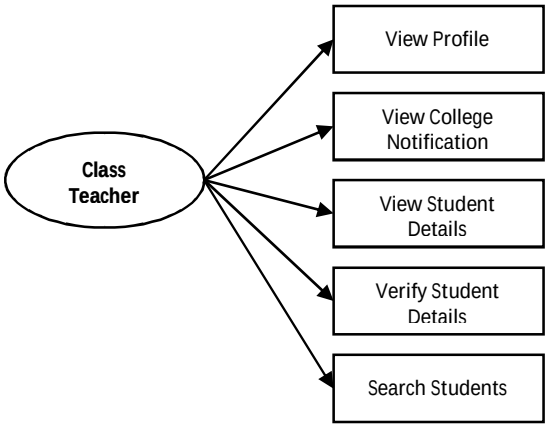

Fig. 5 Class teachers Detailed Flow Graph

3) Non- teaching staff: Non- teaching staff can view profile and also notification. With the permission of principal and HOD can make the changes in notices. Non- teaching staff can create a new student, faculty and non- teaching members.

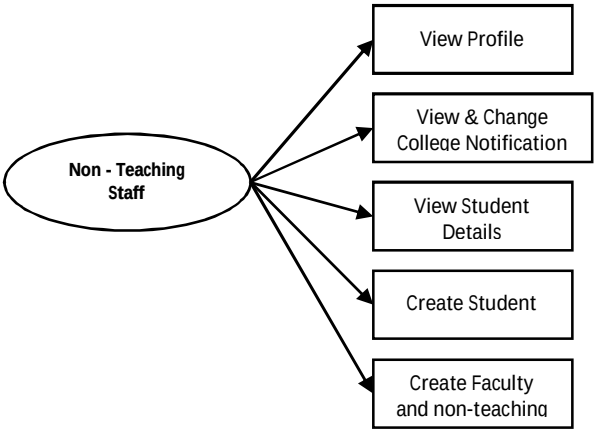

Fig. 6 Non-teaching staffs Detailed Flow Graph

4) Faculty: The faculty can view profile and college notifications. Faculty can also view details of student and can search a student directly.

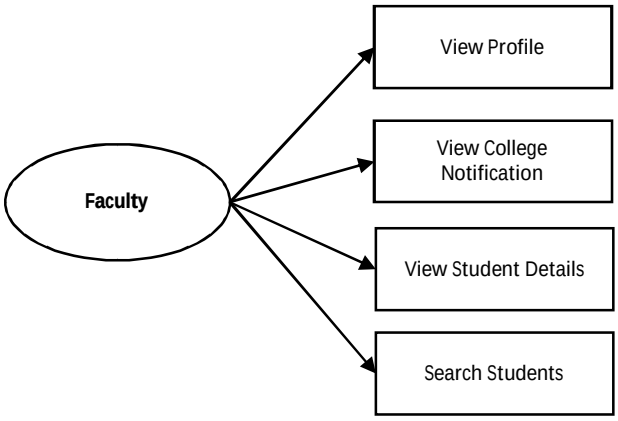

Fig. 7 Faculty Detailed Flow Graph

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5) Student: The student is of center focus, because in every college student plays the very important role. Student can access the notification of the college, subject details, update details, view profile. The subject details include information regarding subjects he is studying, year wise subject offered by the branch, update the information, and receive mails.

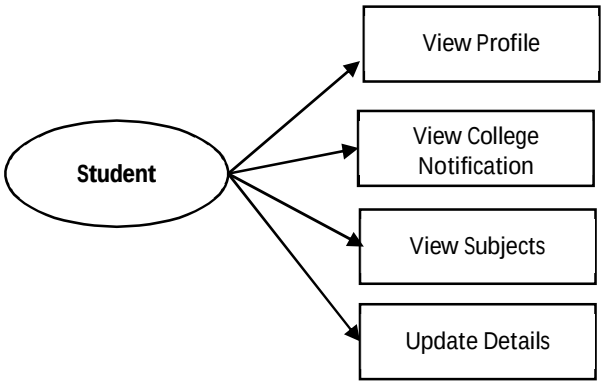


Fig. 8 Student's Detailed Flow Graph

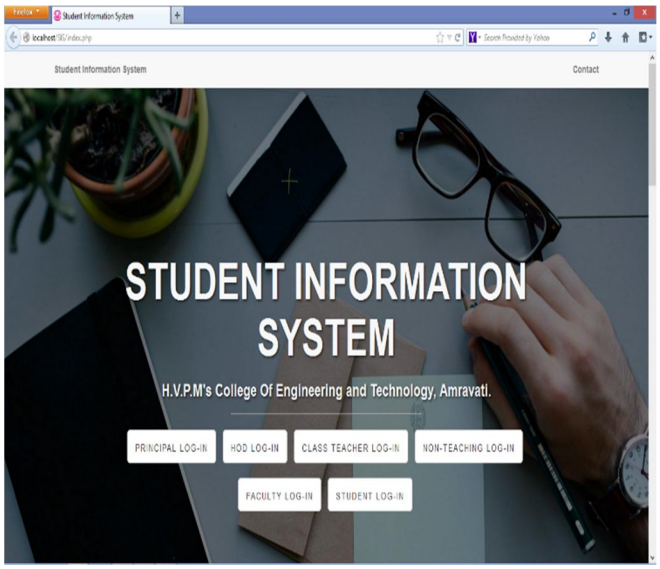
VI. CONCLUSION

This paper assists in automating the existing manual system. This is a paperless work. It can be monitored and controlled remotely. It reduces the man power required. It provides accurate information always. Malpractice can be reduced. All years together gathered information can be saved and can be accessed at any time. The data which is stored in the repository helps in taking intelligent decisions by the management. So it is better to have a Web Based Information Management system. All the stakeholders, faculty and management can get the required information without delay. This system is essential in the colleges/hostels and universities.

VII. RESULTS

A. Home Page

The system starts with the home page contains login links along with some information about college.



B. Login Page

The system contains login page where the registered user can enter user name and password to be able to access the system.

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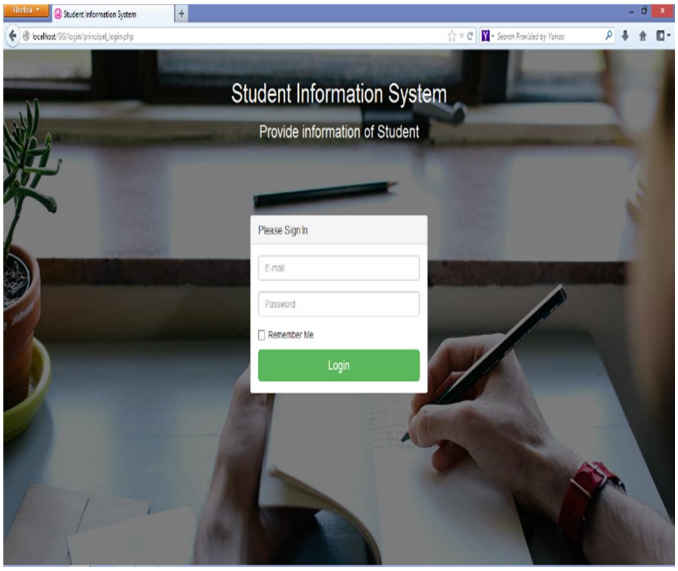
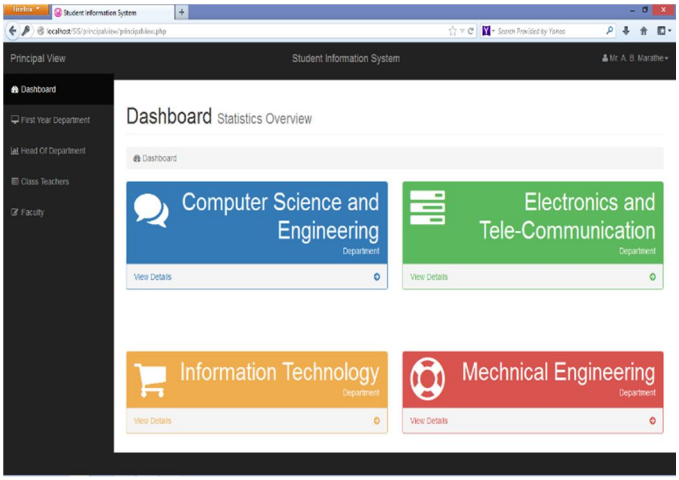


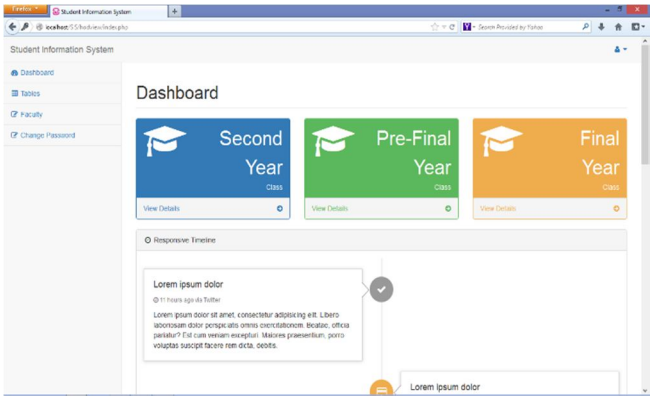
C. Principal View

The Principal can view this page after logged in into the system and perform various task such as see all HOD's of each department, see all branch wise faculty, also search the students according to the department, etc.



D. HOD View

The HOD can view this page after logged in into the system and can perform various activities such as assign class teacher, search the students according to the department, can change password for more security, etc.



E. Registration Form

Registration form contains details of student information during admission provided with user name and password. With that user

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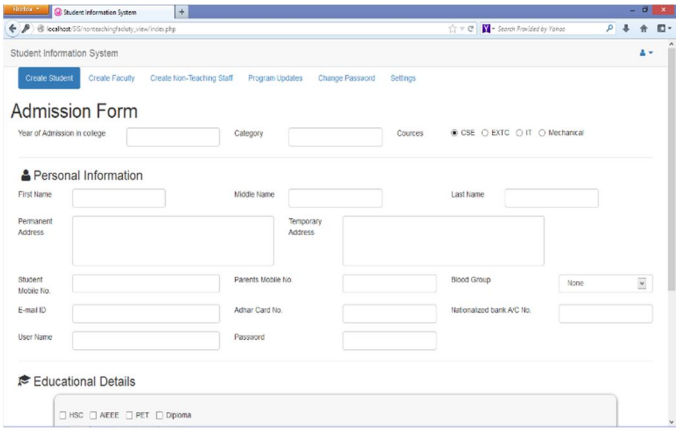
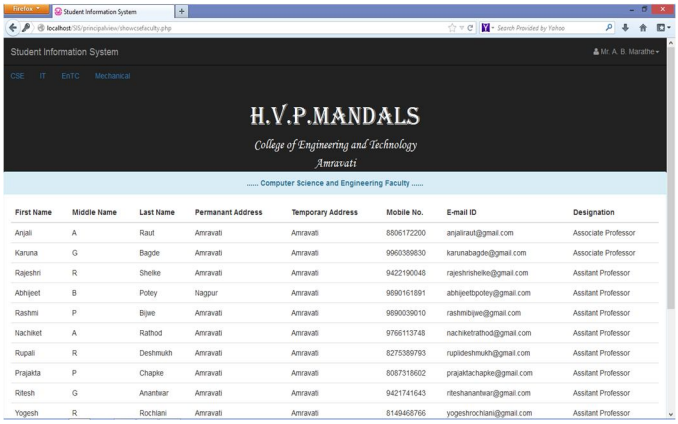
name and password student can login into the system.



F. Faculty View

In the tabular format the principal and HOD can view all the faculty members.



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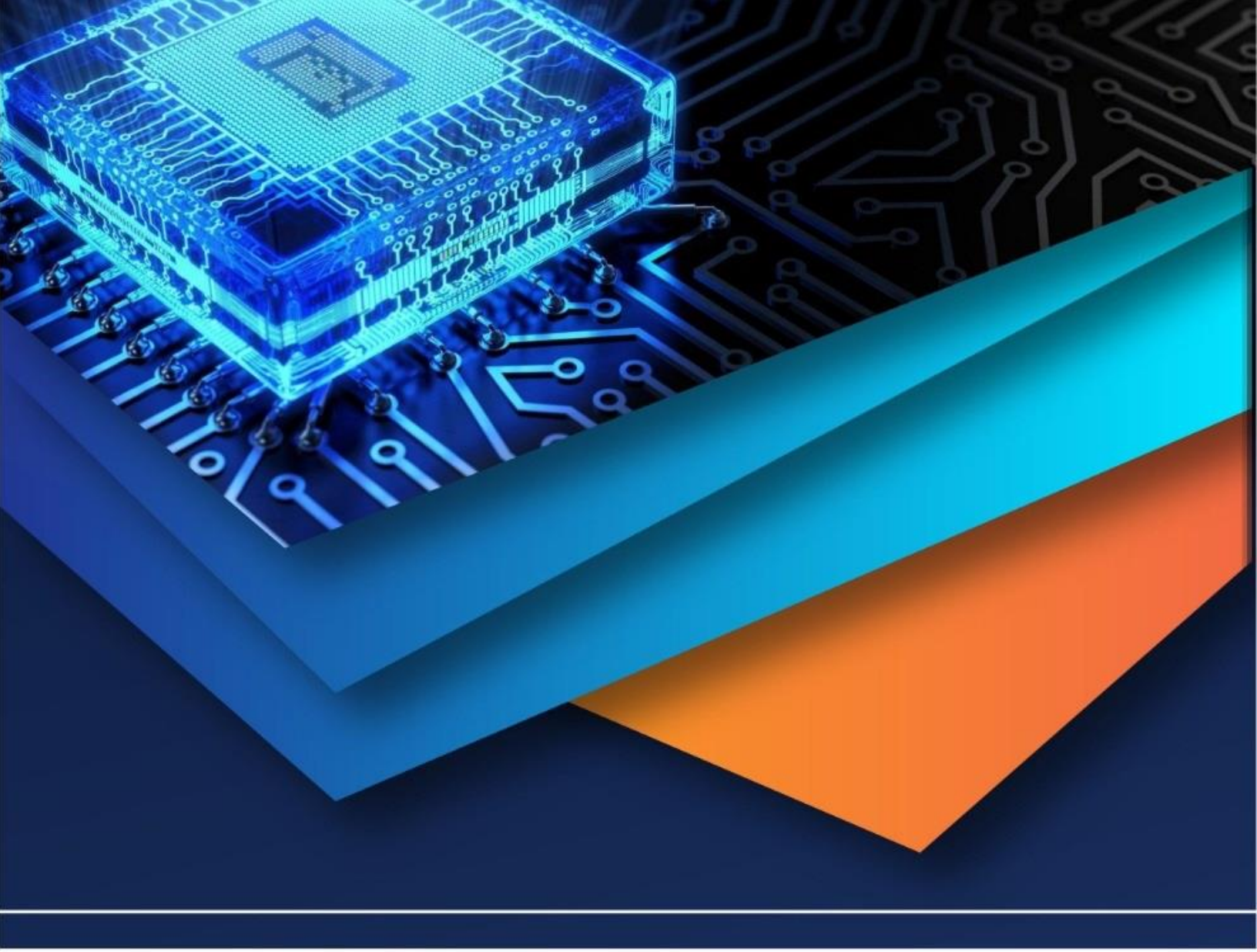

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