# INSTITUTE OF AERONAUTICAL ENGINEERING

(Autonomous)

Dundigal, Hyderabad - 500 043, Telangana

# Samvidha - Campus Management Portal

Samvidha, the Campus Management System (CMS) plays vital role in the administration of the organization. It creates proper channel between multiple departments in the organization. At the Institute of Aeronautical Engineering, Samvidha manages and supervises the entire academic and administration process. All the stakeholders including faculty, researchers, staff, students and parents can utilize Samvidha in pursuance of information on their areas of the operation. It provides and caters the needs of the academic information to all the students.

Samvidha acts as the binding software for all the student process in the Institute. It takes care of all the aspects related to employee's information including recruitments, salaries, promotion, salary revisions, recognitions, performance appraisal, leaves, etc. It is built on software platforms which are scalable. The software is hosted on the cloud to ensure uninterrupted access by any user. Samvidha also has a mobile version which allows users to access information through their smart phones.

Samvidha acts as a mirror of the college information. It also coordinates and helps examination department with the processes related to issuing of hall tickets; grade Sheets, convocation, transcripts, etc. It can be accessed by faculty, staff, students and parents over a highly secured and smart mechanism in and around the campus. This enables easy access of information to allits users 24/7.

Prime accessible elements of Samvidha include academic registration, program details, course details, student details, student attendance, certificates & document details, human resource management, examinations & grade details, subject mapping, time table management, library management (through OPAC), transport management, Placement management and feedbackmanagement.

### **Features:**

### **Student Pre admission/ Admission:**

- Creates and manages admission applications.
- Provides online application form facility from the institute website.
- Manages application forms and generates admission letter.
- Maintains records of student's registration information.
- Generates a detailed report on applicants at each stage with their status and ranks.

# **Course Registration**:

- Enrolls students for the ongoing semester.
- Enrolls faculty for their respective departments & courses for ongoing sessions.
- Maps student's according to specific programs and courses.
- Ensures the constraints regarding credits, prerequisites are met.
- Generates a detailed report on applicants at each stage with their status and ranks.

# **Program**

- Creates and manages programs offered by different departments of the college
- Defines the credits, hours and sections for the programs.
- Set up limits for programs offered within a semester.
- Maps programs with respect to the sessions, i.e. programs offered within a session
- Defines the period name and specific duration, reporting cycle and program intake of an academic year

### **Course**

- Creates and manages various courses that are offered in the college.
- Lists the courses and students associated along with enrollment date and course faculty.
- Plans lessons to be taught and assign duration for a specific chapter/unit.
- Provides a master setup facility to create semesters for different courses.
- Manages academic year and session processes.
- Allocates take-home assignments to students.

### **Attendance Record**

- Generates a session details for attendance via integration with time-table.
- Marks section-wise attendance of the students and uploads lecture notes.
- Generates attendance reports including program wise, faculty wise and student wiseattendance.
- Ensures Attendance based exam detention by integrating attendance management withexamination module.

### **Student Profile**

- Maintains student profiles including personal details, qualification, and 100+ fields.
- Uses the facility of student snapshot to view their details referring to program, fees, exams, and attendance on a single link.
- Generates student ID cards and barcodes.
- Provides reporting tools to generate detailed student reports using various search criteria.

# **Fees Payments:**

- Creates student fee plan at the time of course enrollment.
- Manages refunds and online transfer issues along with duplicate receipt issues.
- Provides facility to manage fee discounts under three types i.e. fixed, ad hoc, and percentagebased discounts.
- Settles the payable bills with the respective fee heads such as admission fee, examinationfee, transport fee, etc
- Generates reports on statements of account for each student for all transactions within aspecific time range.
- Provides reports including outstanding and collection report.

### **Certificates and Documents:**

- Provides a facility by which student/faculty/employee can request certificates that he/shewants to get issued.
- Keeps records of documents submitted at the time of admission such as birth certificate, SSC, Intermediate, Diploma/Degree certificates, mark sheets, entrance exam certificates, etc.
- Generates documents using document generator and print the certificates/documents directly on a predefined format

### **Human Resource:**

- Manages employee records.
- Manages employee leaves approval.
- Defines leave types and eligibility rules for leave application of employees.
- Provides push notification facility through SMS, email and internal notification for leave approvals
- Provides visualization of employee leaves and attendance through the dashboard for.
- Generates attendance reports of employees.
- Generates time-sheet for in-time and out-time of employees.
- Payrolls processing of an employee based on attendance.
- Generates a report on TDS Calculation of each employee based on their pay scale.
- Views and print the Pay slip directly on a predefined format.

# **Examinations and Mark sheets:**

- Prepares and manage pre-examinations processes.
- Manages exam notifications to send to student/parent/faculty portals.
- Manages exam programs and student registration.
- Manages student detention on the basis of credits/attendance record.
- Generates hall ticket and designs exam schedule.
- Manages exam day processes including student exam attendance.
- Evaluates and manages different marking heads i.e. mid-term, viva and final semester.
- Records student performance remarks and marks.
- Manages the marking schemes including grade, SGPA and CGPA.
- Prepares results, transcripts and generates reports for result analysis.
- Records marks obtained in the transferred college under exchange programs.
- Provides overall reports for exam and mark sheet management.
- Generates reports on the basis of student average and the course average for performanceanalysis
  of students, courses and sections.
- Generates reports on faculty performance based on pass percentage.

#### Laboratories:

- Various experimental setups are developed to cater the need of B.Tech and M.Tech programs.
- Several research facilities are developed to support the research activities.
- Responsible course expert team exercises the **central domain of expertise** in developing and renewing the curriculum.
- Assess the quality and effectiveness to the highest of professional standards.

# Electronic Lab Record (ELR)

- Digitized version of paper notebooks used to collect and organize laboratory data
- Automates and stores lab data
- Facilitate the uploading, searching, and retrieval of data
- Set up and maintains security measures to protect data
- Support the secure, restricted distribution of and access to stored data
- Automates lab workflows and processes
- Day to day evaluation of student records by the faculty
- Calculates internal marks of the students

### Time Table:

- Generates session (period) details for attendance.
- Marks attendance of students, program and section-wise.
- Provides functionality for attendance based exam detention with the integration ofattendance management and examination module.
- Provides attendance reports including program wise attendance for faculty and students.

# **Library Integration with OPAC**

- Manages books/periodicals/journals and other media records.
- Manages available books and issued books records with RFID/barcode integration.
- Generates library cards for students, faculties and books.
- Issue/receives library items to and from students/faculties.
- Can be accessed regardless of whether the library is open or not.

# **Transport**

- Creates and manages vehicle Information.
- Manages route information.
- Manages students & bus stop information.
- Provides transport fee facility.
- Keep records of driver details for each vehicle running on various service routes.
- Generates reports on above.

#### **Placement**

- Creates companies in the system.
- Manages placement drives.
- Allows students to apply placement training.
- Generates a report on eligibility list of students with different criteria based the company requirement of job posting.
- Allows students to share placement experience.

# **Feedback**

- Schedules a time-frame for enabling early/end semester, OBE feedback
- Allows students to provide early/end semester, OBE feedback within the scheduled time
- Generates feedback reports

### **Finance and Accounts:**

- Maintains admission, tuition, examination and transport fee details
- Scholarship details
- Creates fitment scale and salary master
- Enables TDS Calculator
- Generates Biometric reports
- Process Payroll
- Generates Pay slips
- Generates TDS report
- Uploads Form-16 of every staff
- Incentive for Research activities
- Process yearly income and expenditure
- Maintains monthly and annual salary report of employee
- Fee raise module for online fee payment

# **Staff Service Register:**

- Maintains personal, academical and professional details of each faculty.
- Provides the details of faculty academic Identity, salary and Incentives
- Furnishes the academic timetable
- Provides employee biometric details
- Provision to apply leave is enabled and maintains each individual leave record
- Tracks and updates the achievement record of each faculty in the areas of academics, research and outreach activities.
- Facilitates the provision of student feedback and result analysis
- Daywise activity record is encrypted

# **Purchases:**

- Furnishes the details of raised purchase proposal requests
- Provides the Indent number, date and the department of each purchase.
- List of the purchase category and the purchase order type is maintained.
- Uploads the quotation details of each purchase
- Details of payment type and the mode of payment is attached with the proofs

# **Key Features of Samvidha:**

- The college authorities implement full supervision of all service units in the office through the ERP software.
- The Administration communicates with governing body members as well as theteaching and non-teaching staff through email.
- All important administrative information including notices is regularly published on thewebsite.
- Biometric attendance for all staff members is maintained.
- Fully automated, wireless office with 24x7 internet facility
- The college campus is equipped with CCTV Cameras installed at various places of need. ICT is introduced in the Administrative work.
- Telegram group helps to provide the brief notices of any event to be happened on college.
- Telegram groups are also used for awareness and of smooth functioning of the same.

**Administration through Samvidha:** The Samvidha login shown in figure 1 is for both faculty and students. The respective ID and password for students and faculty members can be used to log in. It allows instructors and students to operate and access the necessary information.

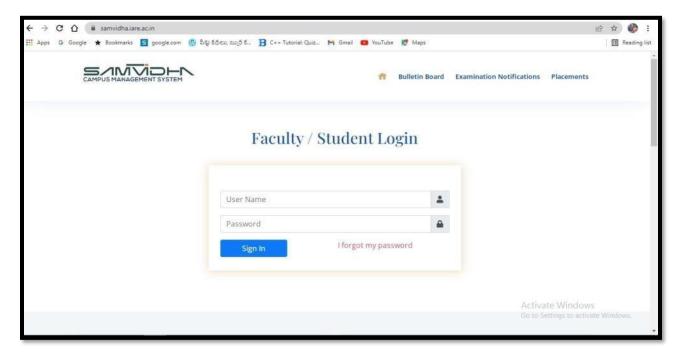


Figure: 1-Samvidha Faculty /Student Login

**Dashboard:** It provides links to all the required information and briefs view of all the strings of operation for the students and the faculty as referred in figure 2.

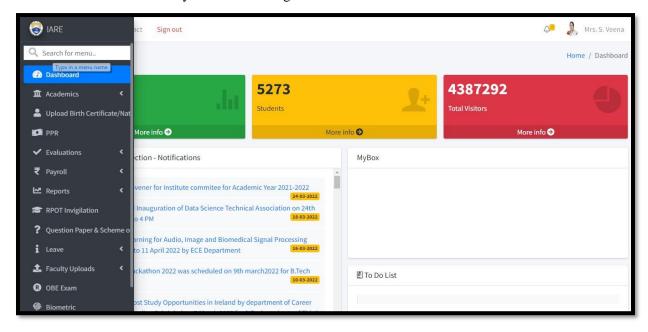


Figure: 2- Samvidha Dashboard

**Adding New employee**: Figure 3, allows adding new staff with all the details which include personal, academical, and professional experience. It also updates the fitment scale of the newly joined employee.

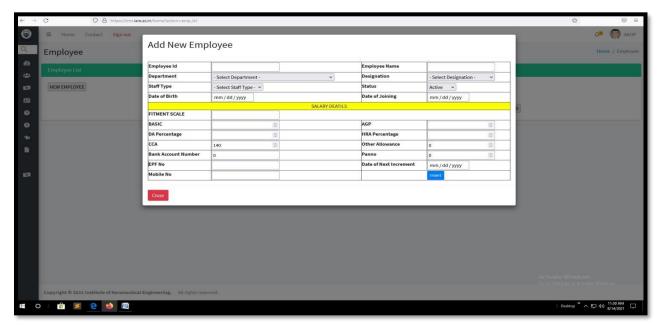
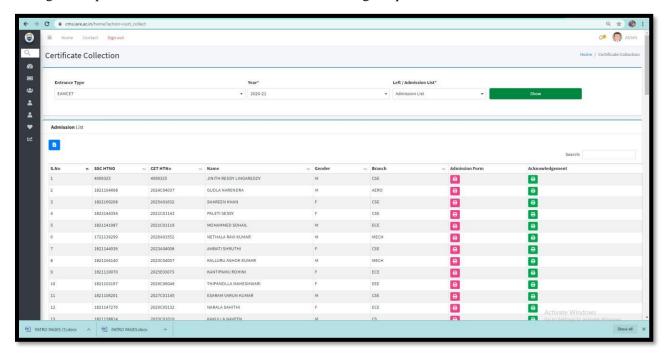


Figure: 3- Add New Employee

**Certificate collection:** It is mandatory for the entire staff to upload all the relevant certificates of the experience and educational qualification in the college login as mentioned in figure 4. They will be used during the inspections and also caters the needs of the college requirement.



**Figure: 4- Certificate Collection** 

**Biometric:** Figure 5 depicts details of Check-in and Check-out time of the students and the faculty in to the college are recorded and displayed through Samvidha

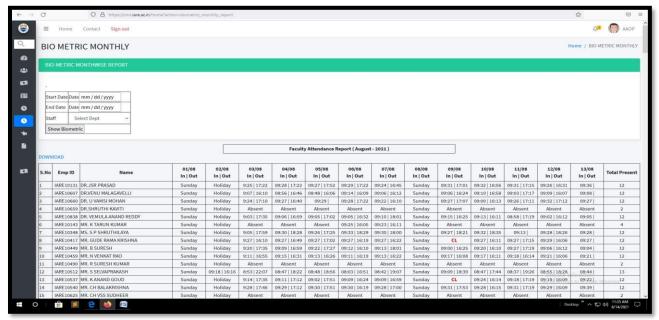
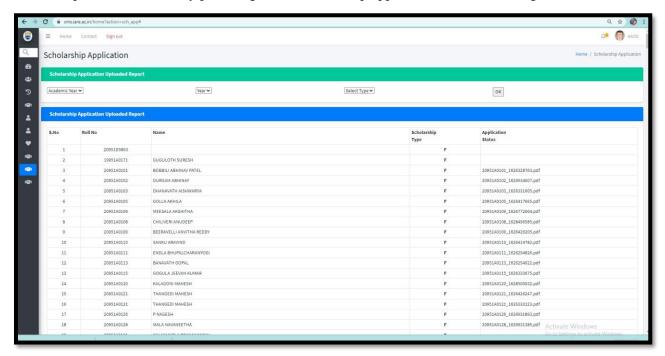


Figure: 5- Biometric details

**Scholarship application:** The Provision to verify all the details of eligibility for scholarship and apply for scholarship is accessed here by providing online scholarship application as referred in figure 6.



**Figure: 6- Scholarship Application** 

**Course details:** The details of the different courses offered is displayed and provides all the information related to the course as shown in figure 7.

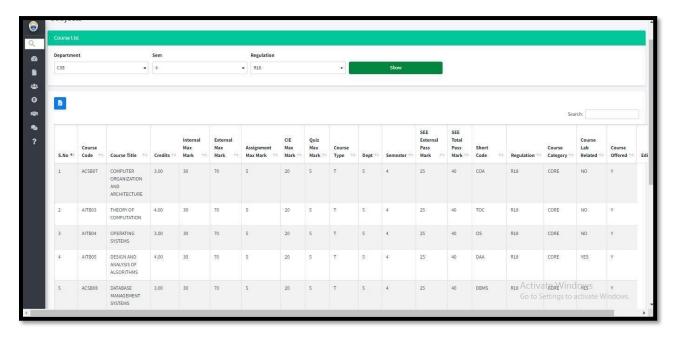


Figure: 7- course details

**Daily Purchase Report:** Figure 8 depicts the daily purchase report of the day-to-day expenditure is displayed through DPR View.

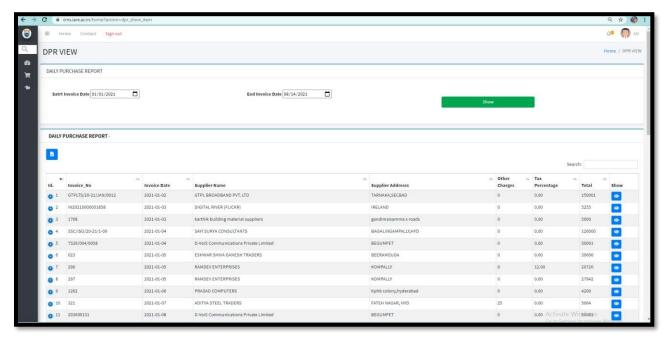


Figure: 8- Daily purchase report

**Nominal Rolls:** It enables information about the student nominal roles is providing access to the students as referred in figure 9.

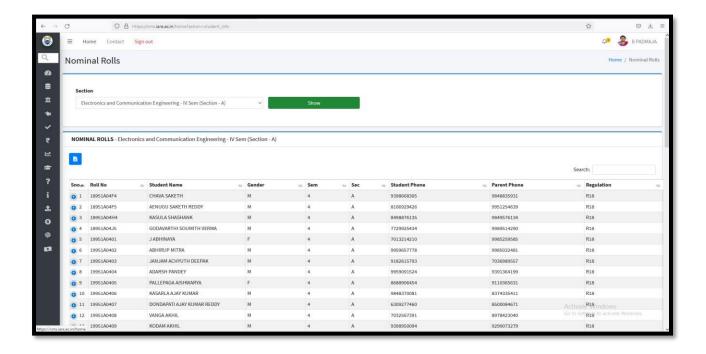


Figure: 9- Nominal roll

**Adding New Department:** Figure 10 enhances the access to create or add new department in the college.

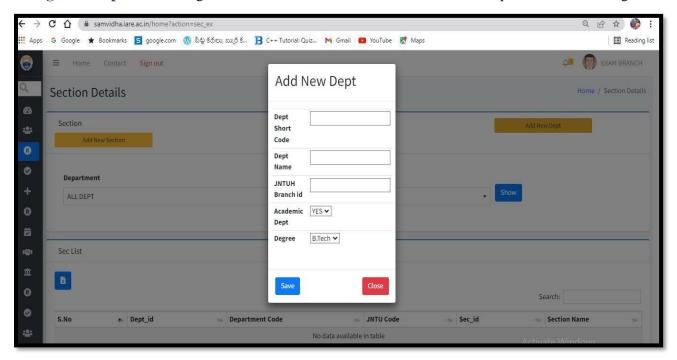


Figure: 10- Adding new department

Adding New Section: It enhances to add new section for a course in the college as depicted in figure 11.

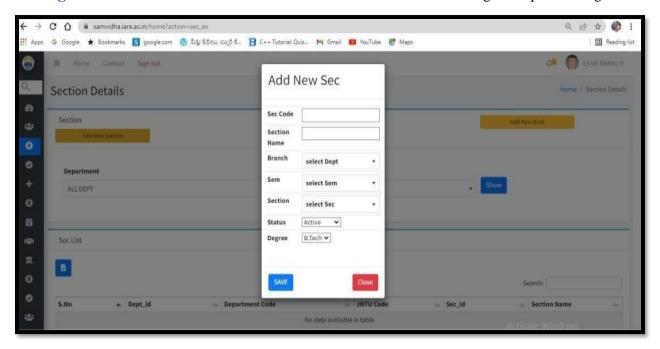


Figure: 11- Adding new section

**Activity Diary:** It helps in providing the information of daily activity of the staff and updates the daily time table of the classes as shown in figure 12.

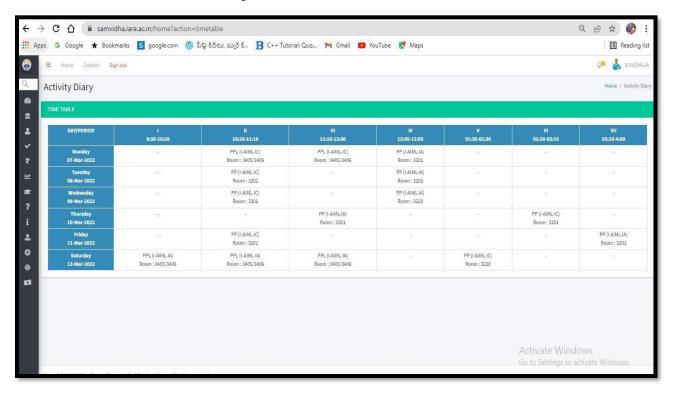


Figure: 12- Activity diary

**Biometric Report:** It provides information about the check in and check out time of the staff and the students as seen in figure 13.

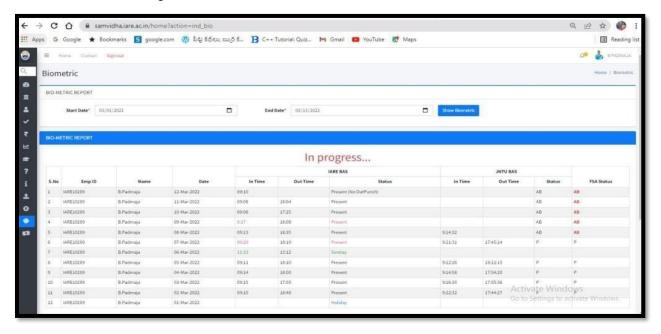


Figure: 13- Biometric report

**Library access:** Figure 14 shows how a c c e s s to the library using Online Public Access Catalog (OPAC) is carried and made accessible.

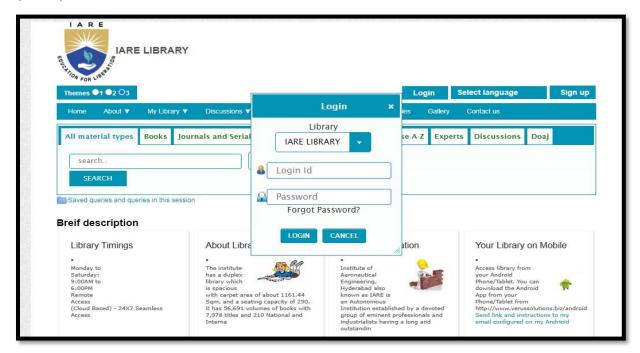


Figure: 14- Library access (OPAC)

**Staff Service Register:** It provides complete details of faculty is maintained in the service register as referred in figure 15.



Figure: 15- Staff Service Register

**Employee pay slips:** Generation of detailed pay slip of the employee is depicted in figure 16.

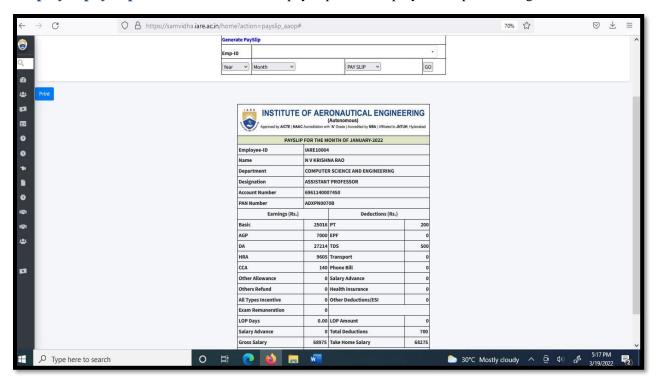


Figure: 16- Employee pay slips

**Monthly wise salary Report**: Figure 17 show the clear picture of month wise salary of all the employees in consolidated form.

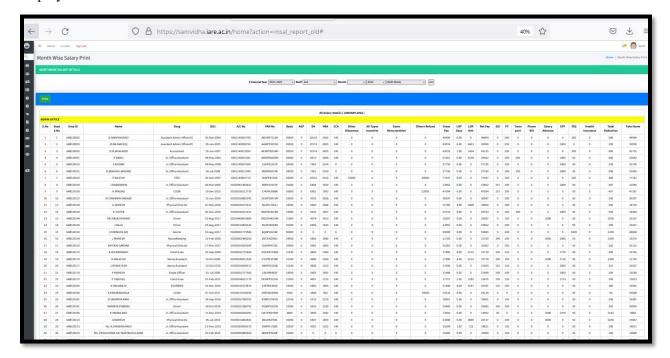


Figure: 17- Monthly wise salary report

**Daily Purchase Report (DPR):** It gives access to all the purchased details of all the items required for the institution. It also stores item details and the purchased bill copy also as seen in figure 18.

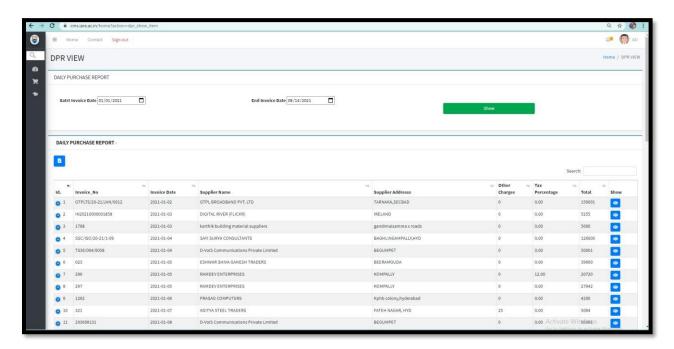


Figure: 18- Daily purchase report

**TDS Calculator:** Figure 19 screens the calculation of tax deduction from the salary based upon basic HRA,DA, CCA and savings. It allows the system to cut the TDS amount from every month salary.

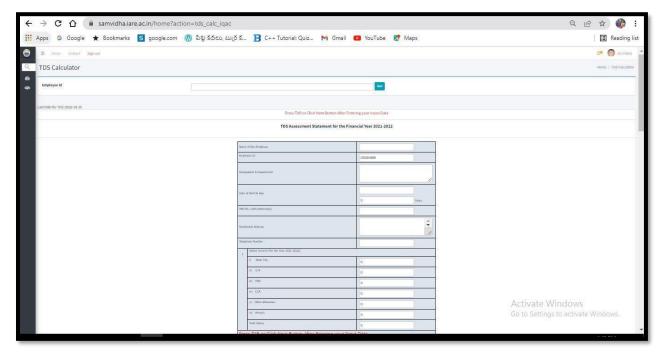


Figure: 19- TDS Calculator

**Incentive Report:** It provides the clear report of incentives provided to the faculty as mentioned in figure 20.

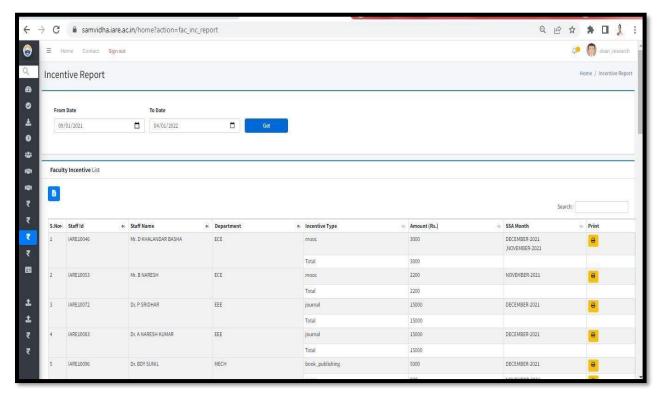


Figure: 20- Incentive report

Bus Fee Collection Report: Figure 21 shows how it caters all the details of the bus fee collection.

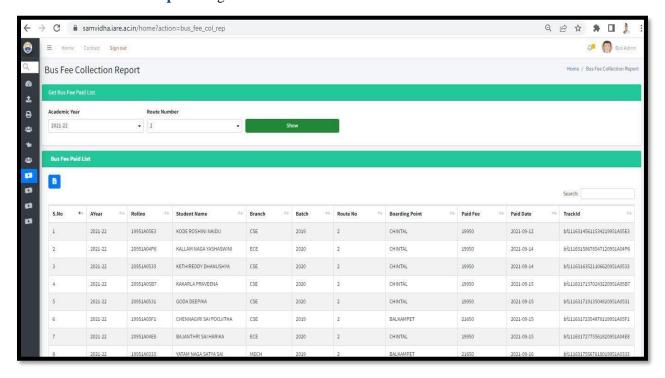


Figure: 21- Bus fee collection report

**Exam Fee Status:** Figure 22 displays the generation of the examination fee status.

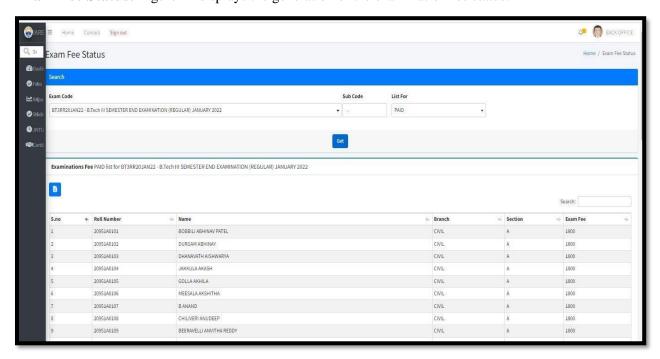


Figure: 22- Exam fee status

**Fee Payments:** As shown in figure 23, it generates the report of the fee payment details

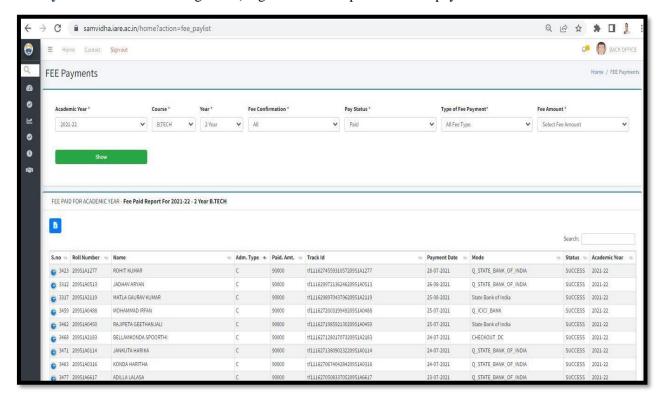


Figure: 23- Fee payments

**Daily Purchase Report:** It gives all the details of the daily purchase report as mentioned in figure 24.

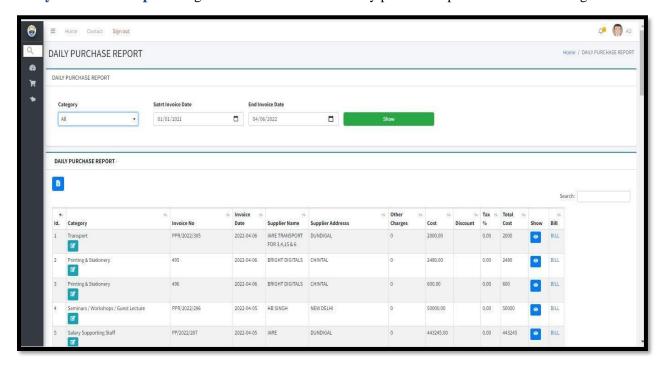


Figure: 24- Daily purchase report

New Purchase: Figure 25 displays the generation of receipt of the newly purchased and its access.

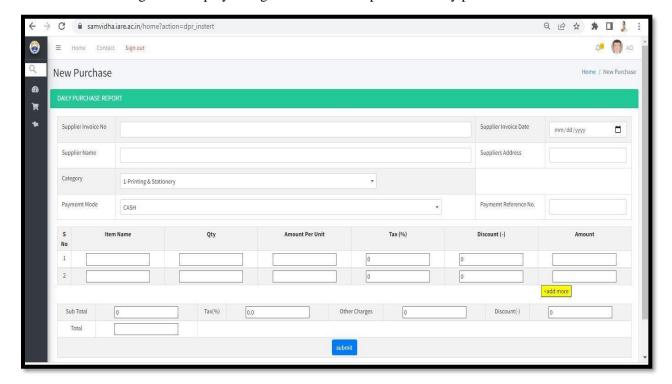
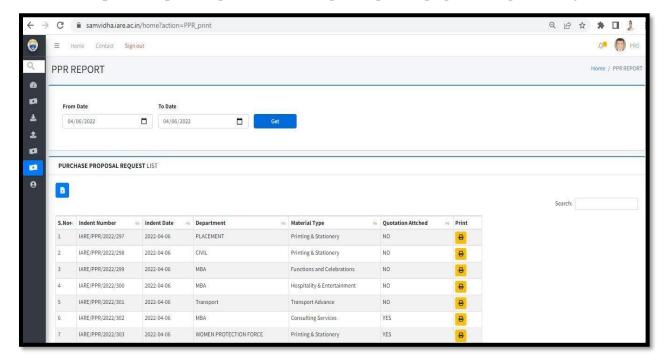


Figure: 25- New purchase report

**Product Proposal Request:** It provides a clear request of product proposal as depicted in figure 26.



**Figure: 26- Product Proposal Report** 

Purchase Proposal Request: Generation of purchase proposal request is displayed in figure 27.

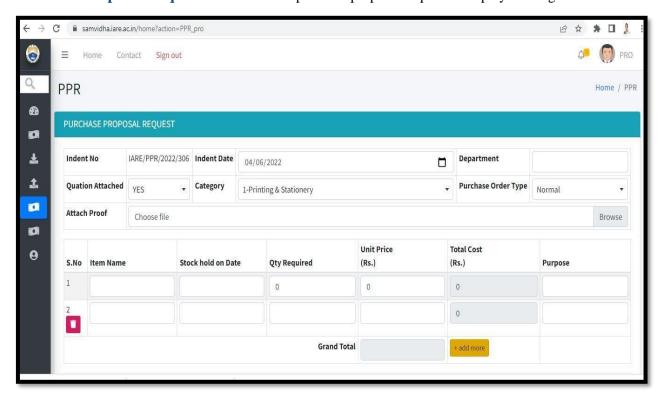


Figure: 27- Purchase Proposal Report