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| Use Case Name: | Provide Updated Class Schedules. | |
| Scenario: | Provide Class Schedules. | |
| Triggering Event: | Start of a New Term. | |
| Brief Description: | To provide the updated class schedules resulting from merging, dissolution and petitioned courses and latest courses for the new term. | |
| Actors: | IOT CLIENT and APCIS. | |
| Related Use Case: | * Checks Class Schedule Details | |
| Stakeholders: | Registrar. | |
| Preconditions: | A new term has started and/or the merging, dissolution and petitioned are consummated. | |
| Post Conditions: | System is provided with the latest and/or updated set of class schedules. | |
| Assumptions: | Class schedule provided is for the current term. | |
| Flow of Activities: | Registrar | APCIS |
| 1.0 Deploys new sets of class schedules | 2.0 Stores new sets of class schedules |
| Exception Conditions: | * No new sets of class schedules. | |

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| Use Case Name: | Checks Class Schedule Details. | |
| Scenario: | Operation of Facilities. | |
| Triggering Event: | Class Schedules. | |
| Brief Description: | Facility Management System checks the class schedules stored in APCIS to operate the facilities. | |
| Actors: | IOT CLIENT and APCIS. | |
| Related Use Case: | * Activates the switch fuse and air conditioner/s in a room. * Deactivates air conditioner/s and switch fuse in a room. * Sends feedback * Reactivation of facilities | |
| Stakeholders: | ITRO. | |
| Preconditions: | A set of class schedules has been provided. | |
| Post Conditions: | System will operate the facilities based on the set of class schedules provided. | |
| Assumptions: | Class schedule provided is updated. | |
| Flow of Activities: | APCIS | Facility |
| 1.0 Provides sets of class schedules | 2.0Checks class schedule provided by APCIS |
| Exception Conditions: | * Suspension of classes. | |

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| Use Case Name: | Activates the switch fuse and air conditioner/s in a room. | |
| Scenario: | Activation of the facilities. | |
| Triggering Event: | Based on Class Schedules. | |
| Brief Description: | Activates the switch fuse for air conditioner and air conditioner itself 15 minutes before the time allocated and switch fuse for other facilities is turned on based on the time allocated. | |
| Actors: | IOT CLIENT and APCIS | |
| Related Use Case: | * Checks Class Schedule Details * Deactivates air conditioner/s and switch fuse in a room. * Sends feedback * Checks class Status | |
| Stakeholders: | ITRO. | |
| Preconditions: | On the current time and given timeslot, there is a class. | |
| Post Conditions: | Lights, air condition and/or computers are activated. | |
| Assumptions: | There is a class on the current timeslot. | |
| Flow of Activities: | APCIS | Facility |
| 1. Provides sets of class schedules | 1. Checks class schedule provided by APCIS |
| Exception Conditions: | * No classes for the given timeslot * Suspension of classes | |

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| Use Case Name: | Deactivates air conditioner/s and switch fuse in a room. | |
| Scenario: | Deactivates the air conditioner/s, lights and switch fuse. | |
| Triggering Event: | Turning off Facilities if:   * Professor is absent * Class is dismissed * Early dismissal * Class suspension | |
| Brief Description: | Deactivates the facilities in a room based on the class schedule provided by APCIS. | |
| Actors: | IOT CLIENT and APCIS | |
| Related Use Case: | * Checks Class Schedule Details * Activates the switch fuse and air conditioner/s in a room. * Sends feedback * Check Subject * Check Class Type * Checks Professor Attendance * Checks Class Status * Checks Movements * Process Class Status * Check if There is a Class 15 Number of Minutes Before the Next Class Starts * Class Status * Process Class Status * Sensors Detect for Movements in the Room for 5 Amount of Minutes | |
| Stakeholders: | Registrar and ITRO. | |
| Preconditions: | After the 5 number of minutes that the sensors had not detected any movement in a room. | |
| Post Conditions: | Lights, air condition and/or computers are deactivated. | |
| Assumptions: | * Professor is absent * Class is dismissed * Early dismissal * Class suspension | |
| Flow of Activities: | APCIS | Facility |
| 1.0 Provides sets of class schedules | 2.0 Checks class schedule provided by APCIS and other preconditions |
| Exception Conditions: | * Class is ongoing * Professor is present for the current timeslot * No suspension of classes | |

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| Use Case Name: | Reactivation of facilities. | |
| Scenario: | Reactivating the facilities in a room. | |
| Triggering Event: | Professor is late or the people using the room had to go out for more than 5 minutes. | |
| Brief Description: | Reactivates the switch fuse for all the facilities used in the room and facilities. | |
| Actors: | APCIS and IOT CLIENT | |
| Related Use Case: | * Checks Class Schedule Details * Activates the switch fuse and air conditioner/s in a room. * Deactivates air conditioner/s and switch fuse in a room. * Checks Class Status * Checks Professor Attendance * Checks Class Schedule * Checks Movement in a room | |
| Stakeholders: | ITRO. | |
| Preconditions: | Operation of Facilities. | |
| Post Conditions: | Process feedback provided by the facilities. | |
| Assumptions: | Facility was either turned on or off. | |
| Flow of Activities: | APCIS | Facility |
| 1.0 Provides sets of class schedules | 2.0 Provides feedback base on its operation |
| Exception Conditions: | * No suspension of classes | |

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| Use Case Name: | Sends Feedback. | |
| Scenario: | Facility Sends Feedback. | |
| Triggering Event: | The time facilities are turned on and/or off. | |
| Brief Description: | System provides feedback base on the behavior of the facility. | |
| Actors: | IOT CLIENT and APCIS | |
| Related Use Case: | * Checks Class Schedule Details * Activates the switch fuse and air conditioner/s in a room. * Deactivates air conditioner/s and switch fuse in a room. | |
| Stakeholders: | ITRO. | |
| Preconditions: | Operation of Facilities. | |
| Post Conditions: | Process feedback provided by the facilities. | |
| Assumptions: | Facility was either turned on or off. | |
| Flow of Activities: | APCIS | Facility |
| 1.0 Provides sets of class schedules | 2.0 Provides feedback base on its operation |
| Exception Conditions: | * No suspension of classes | |

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| Use Case Name: | Process Report | |
| Scenario: | Both professor reports and processed feedback are consolidated. | |
| Triggering Event: | Received professor reported state of facility and/or feedback from facility. | |
| Brief Description: | Professor reports about the state of the facility and is processed together with the facilities’ feedback. | |
| Actors: | IOT CLIENT and APCIS. | |
| Related Use Case: | * Sends Feedback * Activates the switch fuse and air conditioner/s in a room. * Deactivates air conditioner/s and switch fuse in a room. | |
| Stakeholders: | PROFESSORS and ITRO. | |
| Preconditions: | Operation of facilities. | |
| Post Conditions: | Activates the facility | |
| Assumptions: | * Facility is operating * A faulty facility in a room | |
| Flow of Activities: | Professor | APCIS |
| 1. Professor request for reactivation | 3.0 Assess the request |
| Exception Conditions: | * Rooms are activated | |

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| Use Case Name: | Reactivation of air conditioner/s and/or switch fuse | |
| Scenario: | Reactivation of air conditioner/s and/or switch fuse in a room | |
| Triggering Event: | Professor is late or the people using the room had to go out for more than 5 minutes. | |
| Brief Description: | Professor wants to reactivate room | |
| Actors: | IOT CLIENT AND APCIS | |
| Related Use Case: | * Sends Feedback * Activates the switch fuse and air conditioner/s in a room. * Deactivates air conditioner/s and switch fuse in a room * Check Class Status * Checks Professor's Attendance * Check Class Schedule Details | |
| Stakeholders: | PROFESSORS and ITRO. | |
| Preconditions: | Operation of facilities. | |
| Post Conditions: | Feedback and report if any, is processed | |
| Assumptions: | * Facility deactivates | |
| Flow of Activities: | Professor | APCIS |
| 1. Uses facility 2. Reports faulty facility, if any | 3.0 Assess the report |
| Exception Conditions: | * No suspension of classes | |

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| Use Case Name: | Check Class Status | |
| Scenario: | System checks class status | |
| Triggering Event: | Operations of the facilities | |
| Brief Description: | System checks class status to start facility operations | |
| Actors: | IOT, APCIS | |
| Related Use Case: | * Deactivates air conditioner/s and switch fuse in a room. * Reactivation of facilities | |
| Stakeholders: | PROFESSORS | |
| Preconditions: | Operation of facilities. | |
| Post Conditions: | Set status for the facility | |
| Assumptions: | * A class will start after several minutes | |
| Flow of Activities: | Facility | APCIS |
| 2.0 Activates or Deactivate | 1.0 Checks Class status |
| Exception Conditions: | * No Scheduled Class | |

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| Use Case Name: | Check Subject | |
| Scenario: | System checks Subject | |
| Triggering Event: | Operations of the facilities | |
| Brief Description: | System checks class subject to start facility operations | |
| Actors: | IOT CLIENT and APCIS. | |
| Related Use Case: | * Deactivates air conditioner/s and switch fuse in a room. | |
| Stakeholders: | PROFESSORS | |
| Preconditions: | Operation of facilities. | |
| Post Conditions: | Set status for the facility | |
| Assumptions: | * A class will start after several minutes | |
| Flow of Activities: | Facility | APCIS |
| 2.0 Activates or Deactivate | 1.0 Checks Subject |
| Exception Conditions: | * No Scheduled Class | |

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| Use Case Name: | Check Professor Attendance | |
| Scenario: | System checks professor attendance | |
| Triggering Event: | Operations of the facilities | |
| Brief Description: | System checks professor to start facility operations | |
| Actors: | IOT and APCIS | |
| Related Use Case: | * Deactivates air conditioner/s and switch fuse in a room. * Reactivation of facilities | |
| Stakeholders: | PROFESSORS | |
| Preconditions: | Operation of facilities. | |
| Post Conditions: | Set status for the facility | |
| Assumptions: | * A class will start after several minutes | |
| Flow of Activities: | Facility | APCIS |
| 2.0 Activates or Deactivate | 1.0 Checks Professor Attendance |
| Exception Conditions: | * No Scheduled Class | |

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| Use Case Name: | Check movements | |
| Scenario: | System checks movements | |
| Triggering Event: | Operations of the facilities | |
| Brief Description: | System checks class movements to deactivate the facilities | |
| Actors: | IOT CLIENT and APCIS | |
| Related Use Case: | * Deactivates air conditioner/s and switch fuse in a room. * Reactivation of facilities | |
| Stakeholders: | PROFESSORS | |
| Preconditions: | Operation of facilities. | |
| Post Conditions: | Set status for the facility | |
| Assumptions: | * A class will start after several minutes | |
| Flow of Activities: | Facility | APCIS |
| 2.0 Activates or Deactivate | 1.0 Checks movements |
| Exception Conditions: | * No Scheduled Class | |

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| Use Case Name: | Check Class Schedule Time allocation per room | |
| Scenario: | System checks allocated time for room | |
| Triggering Event: | Operations of the facilities | |
| Brief Description: | System checks the allocated time to start operations | |
| Actors: | IOT CLIENT and APCIS | |
| Related Use Case: | * Activates air conditioner/s and switch fuse in a room. | |
| Stakeholders: | USERS | |
| Preconditions: | Operation of facilities. | |
| Post Conditions: | Set status for the facility | |
| Assumptions: | * A class will start after several minutes | |
| Flow of Activities: | Facility | APCIS |
| 2.0 Activates or Deactivate | 1.0 Checks time allocation |
| Exception Conditions: | * No Scheduled Class | |

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| Use Case Name: | Process Professor's Attendance | |
| Scenario: | System checks Professor’s attendance before activation | |
| Triggering Event: | Operations of the facilities | |
| Brief Description: | System checks the Professor’s attendance for operation purposes | |
| Actors: | IOT CLIENT and APCIS | |
| Related Use Case: | * Activates air conditioner/s and switch fuse in a room. | |
| Stakeholders: | USERS | |
| Preconditions: | Operation of facilities. | |
| Post Conditions: | Set status for the facility | |
| Assumptions: | * A class will start after several minutes | |
| Flow of Activities: | Facility | APCIS |
| 2.0 Activates or Deactivate | 1.0 Checks attendance |
| Exception Conditions: | * No Scheduled Class | |

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| Use Case Name: | Sensors Detect for movements in the room for 5 amounts of minutes | |
| Scenario: | Sensors detects movements in a room | |
| Triggering Event: | Operations of the facilities | |
| Brief Description: | System checks the Professor’s attendance for operation purposes | |
| Actors: | IOT CLIENT and APCIS | |
| Related Use Case: | * Deactivates air conditioner/s and switch fuse in a room. | |
| Stakeholders: | USERS | |
| Preconditions: | Operation of facilities. | |
| Post Conditions: | Set status for the facility | |
| Assumptions: | * A class will start after several minutes | |
| Flow of Activities: | Facility | APCIS |
| 2.0 Activates or Deactivate | 1.0 Detects movements |
| Exception Conditions: | * No Scheduled Class | |

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| Use Case Name: | Check if there is a class 15 minutes before the next class starts | |
| Scenario: | System checks the next class scheduled | |
| Triggering Event: | Operations of the facilities | |
| Brief Description: | System checks the next schedule 15 minutes before it starts | |
| Actors: | IOT CLIENT and APCIS | |
| Related Use Case: | * Deactivates air conditioner/s and switch fuse in a room. | |
| Stakeholders: | USERS | |
| Preconditions: | Operation of facilities. | |
| Post Conditions: | Set status for the facility | |
| Assumptions: | * A class will start after several minutes | |
| Flow of Activities: | Facility | APCIS |
| 2.0 Activates or Deactivate | 1.0 Checks next schedule |
| Exception Conditions: | * No Scheduled Class | |

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| Use Case Name: | Manage Reservation of Room | |
| Scenario: | USER wants to move a reserve a new room | |
| Triggering Event: | Faulty equipment or seminars | |
| Brief Description: | USER manages to reserve a room | |
| Actors: | USER and APCIS | |
| Related Use Case: | * Inquiring for a reservation * Record reservation | |
| Stakeholders: | USERS | |
| Preconditions: | Operation of facilities. | |
| Post Conditions: | Set status for the facility | |
| Assumptions: | * A class will start after several minutes | |
| Flow of Activities: | Facility | APCIS |
| 2.0 Activates or Deactivate | 1.0 User Request for a new room |
| Exception Conditions: | * No Scheduled Class | |

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| Use Case Name: | Inquiring for a reservation | |
| Scenario: | User Inquires for a reservation | |
| Triggering Event: | User wants to move a reserve a new room | |
| Brief Description: | User Inquires a new room | |
| Actors: | USER and APCIS | |
| Related Use Case: | * Manages Reservation of room * Record reservation | |
| Stakeholders: | USERS | |
| Preconditions: | Operation of facilities. | |
| Post Conditions: | Set status for the facility | |
| Assumptions: | * A class will start after several minutes | |
| Flow of Activities: | Facility | APCIS |
| 2.0 Activates or Deactivate | 1.0 User Inquires for a new room |
| Exception Conditions: | * No Scheduled Class | |

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| Use Case Name: | Record reservation | |
| Scenario: | User records the reservation | |
| Triggering Event: | User wants to move a reserve a new room | |
| Brief Description: | User records the reserved room | |
| Actors: | USER and APCIS | |
| Related Use Case: | * Manages Reservation of room * Inquires a Reservation | |
| Stakeholders: | USERS | |
| Preconditions: | Operation of facilities. | |
| Post Conditions: | Set status for the facility | |
| Assumptions: | * A class will start after several minutes | |
| Flow of Activities: | Facility | APCIS |
| 2.0 Activates or Deactivate | 1.0 User Records new room |
| Exception Conditions: | * No Scheduled Class | |