

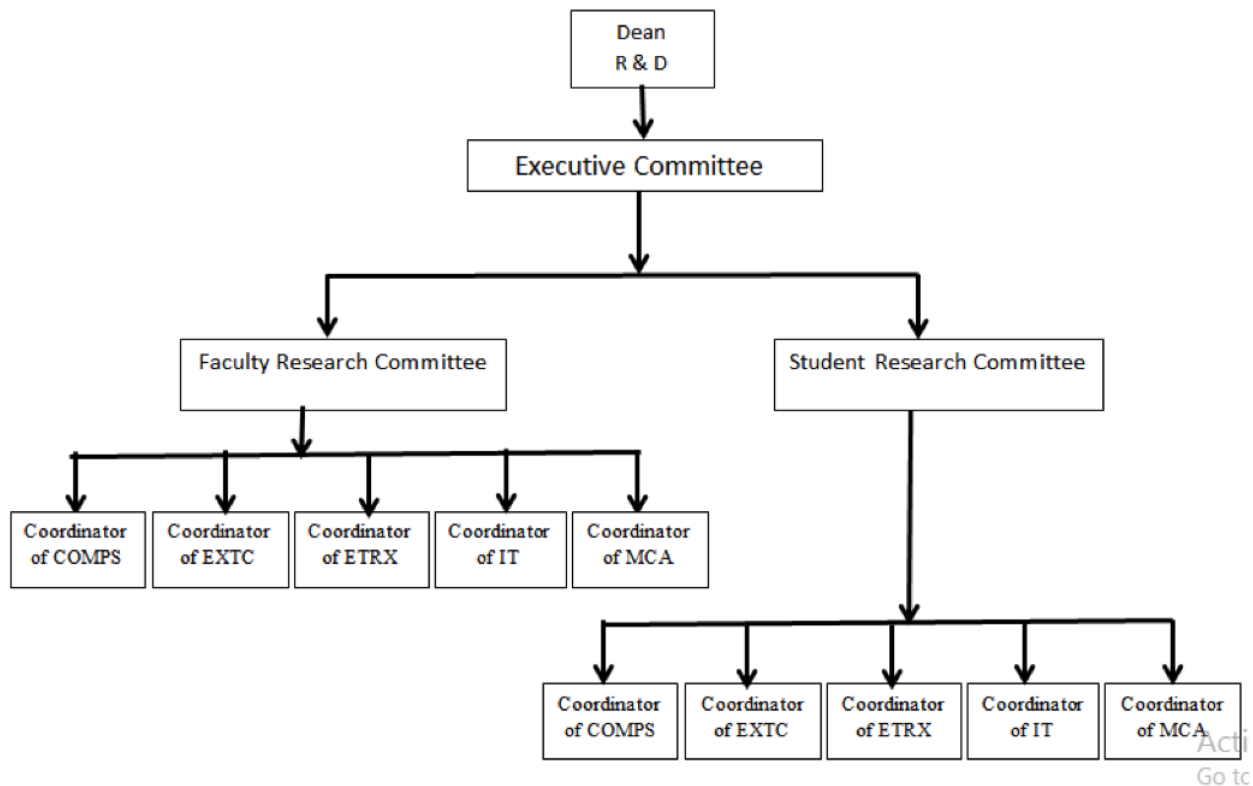


Bharatiya Vidya Bhavan's
Sardar Patel Institute of Technology
(Autonomous Institute Affiliated to University of Mumbai)
[Knowledge is Nectar]
Research And Development Committee

R & D Process

2020-21

Structure of R & D in S.P.I.T.



R & D Committee, S.P.I.T.

- ❖ **Dr. Y. S. Rao - Dean R&D**
- ❖ **Dr. R. R. Sawant – Incharge, PDC - rrs1902@gmail.com**
- ❖ **Prof. K. T. Talele – Incharge, IEDC - kiran.talele@spit.ac.in**

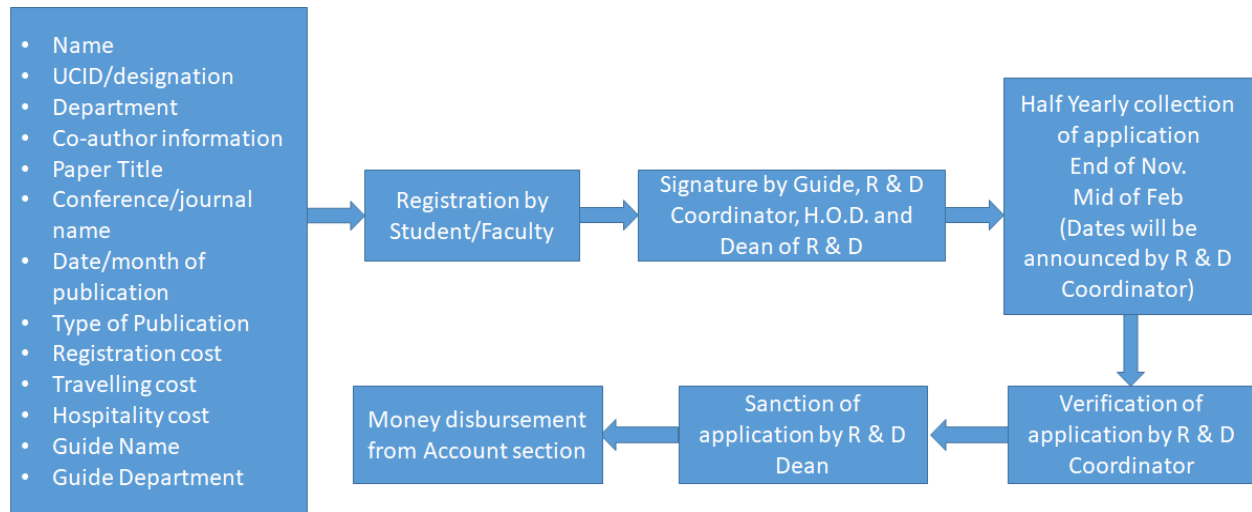
Coordinators for each department

- **Dr. Aarti Karande – MCA Department – aartimkarande@spit.ac.in**
- **Dr. Amol Deshpande – EXTC Department - amol_deshpande@spit.ac.in**
- **Prof. Nikahat Mulla– I.T. Department - nikahat_kazi@spit.ac.in**
- **Prof. Najib Ghatte – ETRX Department - najib_ghatte@spit.ac.in**
- **Prof. Anand Godbole – COMPS Department - anand_godbole@spit.ac.in**

List of Process under R & D

- a. Technical Research Paper Participation (Reimbursement)
- b. Project Exhibition
- c. Promotion of Research and Innovation for Undergraduate Students
- d. Technical Research Paper Presentation Competition
- e. Best Research award – Faculty and Students
- f. IEDC - The Innovation and Entrepreneurship Development Center
- g. Patent -IPR
- h. Consultancy / Grant
- i. PDC - Product Development Center

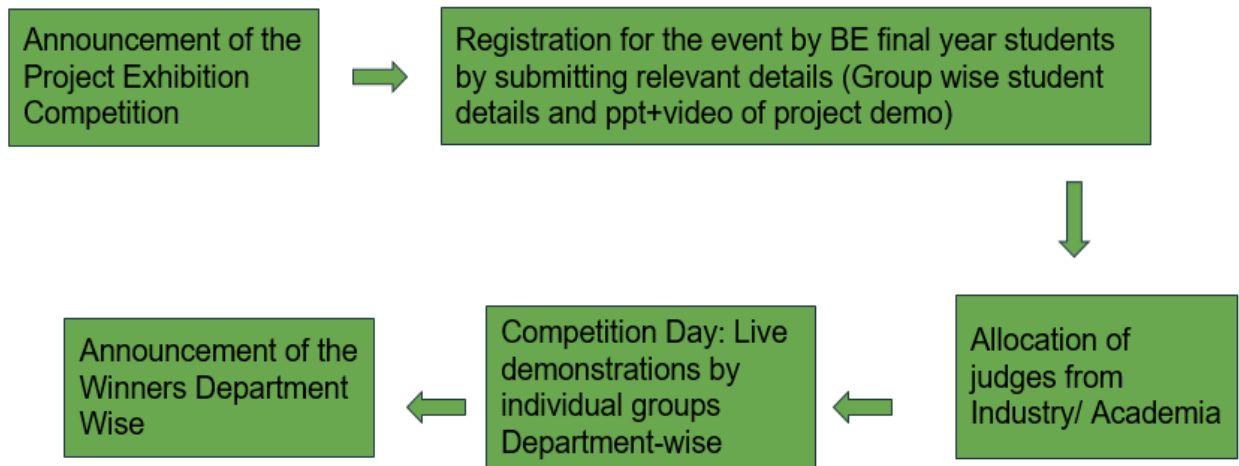
3.a. Technical Research Paper Participation (Reimbursement)



This process collects all research paper details from students and faculty for reimbursement. Data collection includes information about the paper like title, conference/journal information.

- Registration: Fetch Data for the papers as per student / faculty
 - Name of the Student, UCID, Dept / Name of the Faculty, Dept, Designation
 - Name of the Co-author (Student with their name, UCID, dept)/name of the co-author faculty (Name, dept, designation)
 - Name of the guide (Dept, name)
 - Title of the paper
 - Name of the conference, date, hosting institute name and venue, type of conference/name of the journal, date of publication, type
 - Reimbursement details like registration cost, traveling cost, stay cost(both for student/faculty)
- Reimbursement Application:
 - Collected requests will be sanctioned for research paper reimbursement by both (faculty/ Student)
 - admin will be sanction/decline the application
- Report generation: based on the type (year, dept, program)
- Choose the type of reports needed (Comparison total strength for last 1/3/5 years)
- Generate Excel Sheet of the Statistics based on the above selections.
- Analyzing the data and creating visualizations for understanding the static and growth percentage compared to past data
- Yearwise amount utilized for UG/PG/Ph.d should be declared

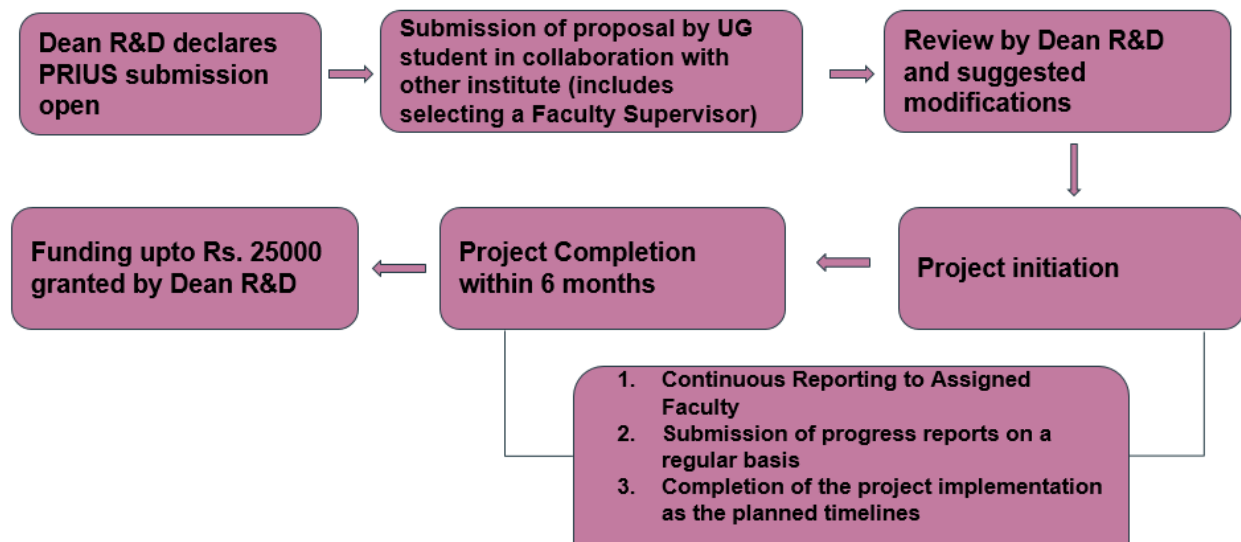
3.b Project Exhibition



This process is an event for organizing yearly project competition among final year students (UG) across all branches of the institute.

1. Announce the date for the competition.
2. Registration link of teams for the event with the following provisions: Choose the type (year, dept, program)
3. Form for registration must contain:
 - Academic year
 - Department
 - Group No. and provision for adding 2-4 students: UCID, Name, Email details
 - Project Title
 - Video upload link
 - PPT upload link
 - or bulk upload option with the above fields
4. External Judges for the competition must be allocated
5. Generate different reports based on the following categories.
 - Winners year-wise
 - Winners department-wise year-wise list
 - Winners for last 2 years/3 years/ 5 years customizable
 - Students participated list-Category-wise department-wise/ Category-wise overall/ overall count category-wise/overall list/count under each heading-pie-chart/barchart (Statistical Reports)
 - No. of groups list year wise department wise
6. Year wise amount utilised for the competition should be declared
7. Sponsorship from SP-TBI should be accommodated

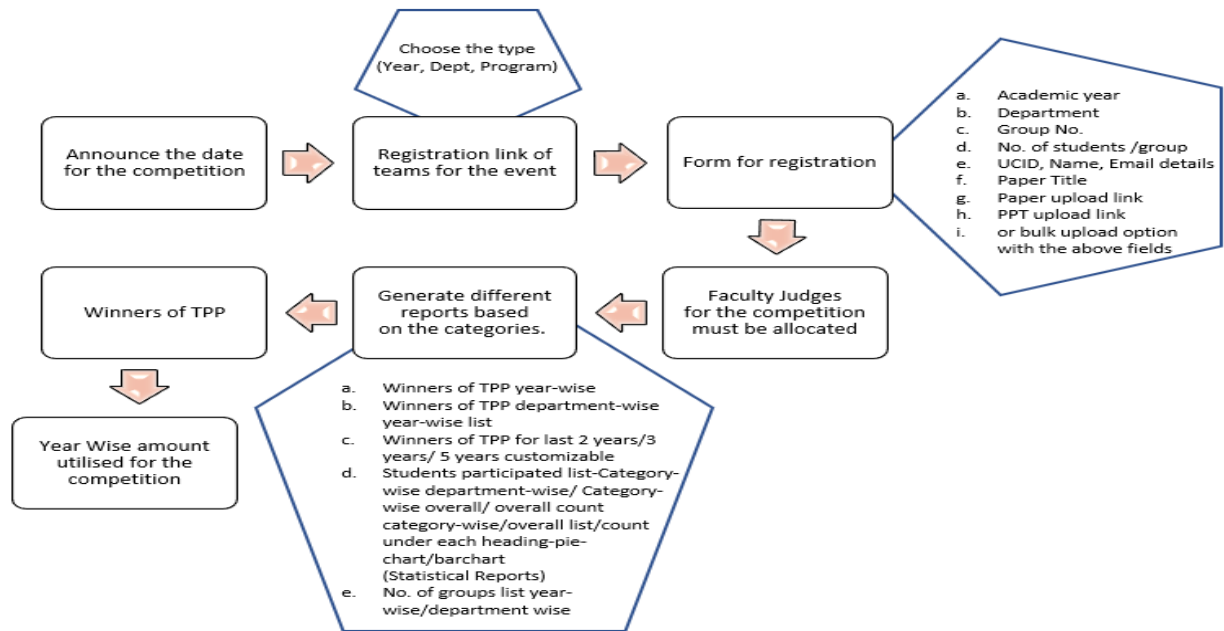
3.c Promotion of Research and Innovation for Undergraduate Students (PRIUS)



This process is for providing financial assistance to UG students for national/ international collaborative research work with other institutes. The UG student has to identify a faculty supervisor from S.P.I.T. and must work with the faculty towards completion of the research project undertaken. PRIUS Projects should typically run for a period of at least 6 months.

1. Students must register the project undertaken specifying details
2. Registration form must contain:
 - Academic year
 - Department
 - Student details: UCID, Name, Email
 - Project Title
 - Details of the collaborating institute/company
 - Faculty Supervisor Details
 - Funding details from collaborating institute
3. Student to be provided facility to add monthly/weekly project progress report approved by faculty supervisor
4. Faculty supervisor should be able to approve monthly/ weekly progress report
5. Generate different reports based on the following categories.
 - Project details year-wise
 - Projects department-wise year-wise list
 - Project details for last 2 /3 / 4/ 5 years customizable
 - Pie-chart/barchart (Statistical Reports) for previous n years
6. Amount sanctioned for each project to be approved by Dean R&D

3.d Technical Paper Presentation



This process is an event for organizing yearly project competition among final year students (UG) across all branches of the institute.

1. Announce the date for the competition.
2. Registration link of teams for the event with the following provisions: Choose the type (year, dept, program)
3. Form for registration must contain:
 - a. Academic year
 - b. Department
 - c. Group No. and provision for adding 2-4 students: UCID, Name, Email details
 - d. Paper Title
 - e. Paper upload link
 - f. PPT upload link
 - g. or bulk upload option with the above fields
4. Faculty Judges for the competition must be allocated
5. Generate different reports based on the following categories.
 - a. Winners of TPP year-wise
 - b. Winners of TPP department-wise year-wise list
 - c. Winners of TPP for last 2 years/3 years/ 5 years customizable
 - d. Students participated list-Category-wise department-wise/ Category-wise overall/ overall count category-wise/overall list/count under each heading-pie-chart/barchart (Statistical Reports)
 - e. No. of groups list year-wise/department wise
6. Year Wise amount utilised for the competition should be declared

3.e. RESEARCH AWARD PROCESS- For Faculty and Student

1. applications will be invited from teachers and students regarding the activities done in the current academic year.
2. Evaluation criteria for teacher / students need to be framed separately
3. formation of the Evaluation team will be done. (suggestion)
4. Evaluation analysis needs to be carried out.
5. Announcement of the result (winner) is declared.
6. Following factors may be considered (tentative) which may be revised from time to time.**

Research award - Criteria for Student

Criteria I : Research Publications

1. Publication of technical papers in national and international journals (Preference will be given for publications in SCI & SCOPUS journals) (International/ National)
2. Presentation and publication of technical papers in referred national and international seminars, conferences, symposiums, etc. (International / National)

Criteria II : Sponsored projects handled

1. University Grant for Minor/ Major project
2. AICTE Grants

Criteria III: Other Professional Recognitions & Contributions

1. Patents awarded (International / National)
2. Professional recognitions: Awards / best papers
3. Professional body memberships

Research award - Criteria for Faculty

criteria I : Research Publications

1. Publication of technical papers in national and international journals (Preference will be given for publications in SCI & SCOPUS journals) (International/ National)
2. Presentation and publication of technical papers in referred national and international seminars, conferences, symposiums, etc. (International / National)

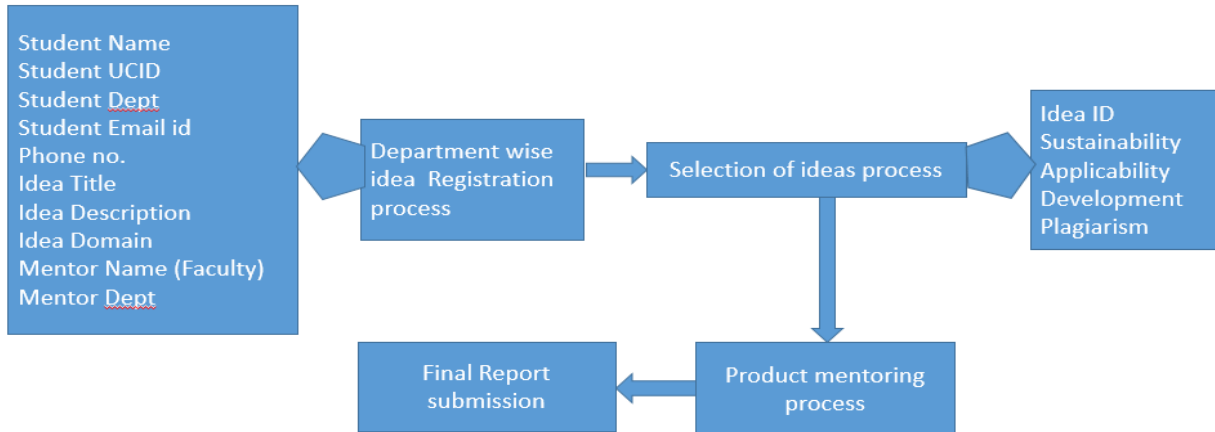
criteria II : Research Guidance

1. Research Guidance of PhD Thesis (supervisor / Co supervisor)
2. Research Guidance of PG Dissertations (guide / co Guide)

criteria III : Sponsored projects handled

1. Externally funded R&D Projects Handled: For Principal Investigators: / co-investigator)
2. Industry Sponsored Projects (Consultancy Works)
3. University Grant for Minor/ Major project
4. AICTE Grants

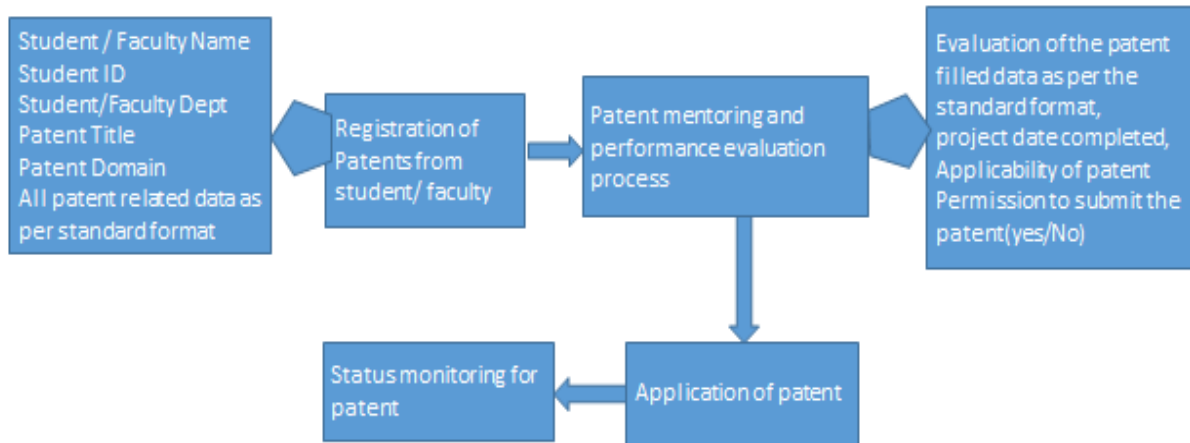
3.f IEDC(The Innovation & Entrepreneurship Development Center)



IEDC will work for development of innovative ideas. It takes few students' ideas under its wing through the Student Startup Programme. These ideas will be purely tech-based ideas. Student idea will be pitched with criteria such as product development, service development. Students will be required to participate in events or mentoring sessions organized by SPTBI.

1. Department wise Registration process: Fetch Data from the students related to product idea
 - a. Student Name
 - b. Student UCID
 - c. Student Dept
 - d. Student Email id and Phone no.
 - e. Idea Title
 - f. Idea Description
 - g. Idea Domain
 - h. Mentor Name (Faculty Name)
 - i. Mentor Dept
2. Selection of ideas process: Based on following parameter (Per dept 2 ideas)
 1. Idea ID
 2. Sustainability
 3. Applicability
 4. Development
 5. Plagiarism
3. Product mentoring process:
 1. Idea Id
 2. weekly progress report
4. report Generation
 1. Choose the type (year, dept, program)
 2. Generate Excel Sheet of the Statistics (year, dept, program)
 3. Analyzing the data and creating visualizations for understanding the static and growth percentage compared to past data

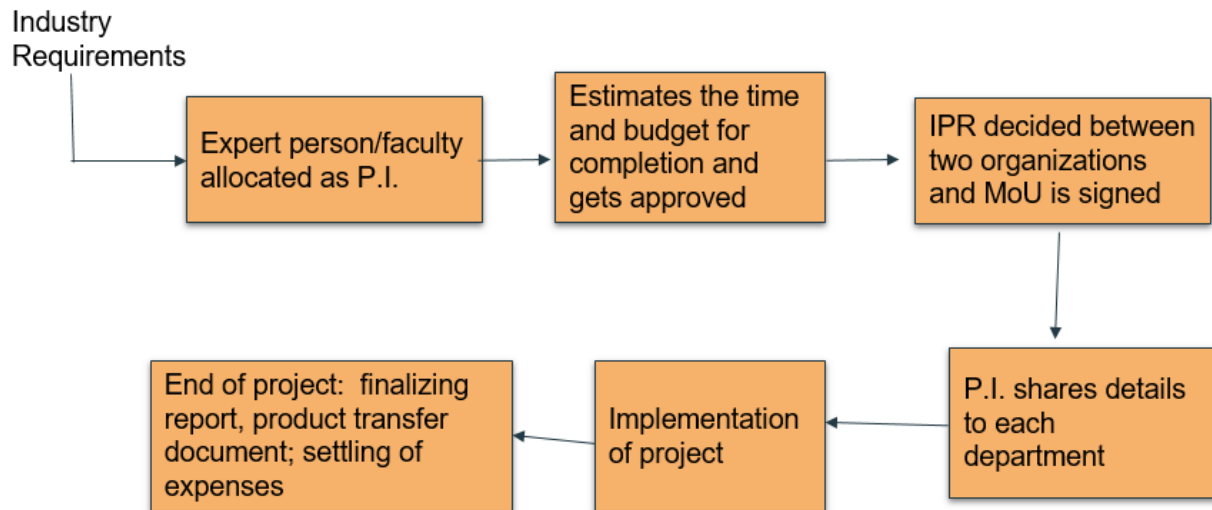
3.g Patent-IPR



Patent related information will be collected at institute level. Sponsored patent and non-sponsored patent information will be collected. the report will be generated for apply, grant and publish patent.

1. Registration of Patents from student/ faculty
 1. Student / Faculty Name
 2. Student ID
 3. Student/Faculty Dept
 4. Patent Title
 5. Patent Domain
 6. All patent related data as per standard format
2. Patent mentoring and performance evaluation process
 1. Evaluation of the patent filled data as per the standard format
 2. project date completed
 3. Applicability of patent
 4. Permission to submit the patent(yes/No)
3. Application of patent
 - a. All collected idea submitted to IPR office
 - b. final patent id
4. Status monitoring for patent
 - a. Final Patent Id
 - b. Status of patent
5. Report generation
 1. Choose the type (year, dept, program)
 2. Generate Excel Sheet of the Statistics based on (year, dept, program)
 3. Analyzing the data and creating visualizations for understanding the static and growth percentage compared to past data

3.h Consultancy



MoU signed with industry

Cat-1: Consultancy Projects being executed externally without any SPIT Lab Assistance (Off-Campus)

Cat-2: Consultancy Projects being executed internally on-campus with SPIT Lab Assistance and assistance of human resource like college-staff, student-interns and special-recruits (On-Campus)

1. The requirement originates from the industry/other organizations.
2. The faculty is expected to estimate the time and cost required to accomplish the task.
3. All consultancy proposals must be sent under signature of the PI to Dean R&D for endorsement and approval by the Principal of SPIT.
4. IPR related issues are agreed between the PI and the funding agency and should be cleared by the Principal.
5. Signing MoU/agreement
6. Assigning unique internal number to the project
7. Faculty shares the outline of the project to the respective department.
8. System should have provision to update the MoU signed with Industry
9. System should have provision to upload the expenditure details
10. After the end of project: (a)Preparation of final financial report and technical report; (b) transfer letter of consumables & non-consumables

3.i. PDC – Product Development Center

- To convert project to prototype for commercialization
- To develop and test hardware/Software products
- To provide technology support for creative product development
- To develop skills required for end to end product development
- To offer a platform to Alumni, students and faculties for converting their ideas into marketable products

Services by PDC

- (1) Technology support for Marketable product development
- (2) Mentorship for competitive product development
- (3) Infrastructure support and guidance for students group awarded by industry
- (4) Undertake product development jointly with Alumni & industry experts