



PARUL UNIVERSITY

FACULTY OF ENGINEERING AND TECHNOLOGY

B.TECH PROJECT GUIDELINES AND EXECUTION PROTOCOLS

ACADEMIC YEAR 2018-2019

VISIT WEBSITE FOR ALL INFORMATION

<https://sites.google.com/site/puprojectsmechanical/>

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1. 7TH & 8TH Semester Teaching Scheme

7th Semester Teaching scheme

Branch	Code	Subject	Credit	Lab	Internal Marks (P)	External Marks (P)	Total Marks(P)	Passing Marks
AN	03101404	Project-I	7	14	100	100	200	100
CV	03104404	Project-I	3	06	100	100	200	100
CSE	03105401	Project-I	7	14	100	100	200	100
EC	03107404	Project-I	7	14	100	100	200	100
EE	03106401	Project-I	6	12	100	100	200	100
IT	03108401	Project 1	7	14	100	100	200	100
ME	03109403	Project-I	7	14	100	100	200	100
AG	-	-	-	-	-	-	-	-
AU	03102403	Project-1	7	14	100	100	200	100
BIO	03111412	Project-I	7	14	100	100	200	100
CH	03103404	Project-I	7	14	100	100	200	100
IC	03112404	Project-I	7	14	100	100	200	100
MT	03113402	Project-I	7	14	100	100	200	100

8th Semester Teaching Scheme

Branch	Code	Subject	Credit	Lab	Internal Marks (P)	External Marks (P)	Total Marks	Passing Marks
AN	03101453	Project-II	8	16	100	100	200	100
CV	03104453	Project-II	3	6	100	100	200	100
CSE	03105451	Project-II	8	16	100	100	200	100
EC	03107452	Project-II	7	14	100	100	200	100
EE	03106451	Project-II	6	12	100	100	200	100
IT	03108451	Project 2	8	16	100	100	200	100
ME	03109453	Project-II	7	14	100	100	200	100
AG	03110451	Project	15	30	200	200	400	200
AU	03102454	Project-2	7	14	100	100	200	100
BIO	03111451	Project-II	8	16	100	100	200	100
CH	03103453	Project-II	8	16	100	100	200	100
IC	03112452	Project-II	7	14	100	100	200	100
MT	03113452	Project-II	8	16	100	100	200	100

2. Guidelines for Project

2.1 Learning Outcome

On completion of this course the student should be able to:

- Use and apply information from technical literature, Identify and set clearly the aims and objectives of research project.
- Develop a research proposal and plan for a research project in an appropriate area relevant to the programme of study.
- Source and critically review literature relevant to a chosen project topic.
- Evaluate a range of data analysis methods, experimental methods, alternative approaches in relation to specific project objectives.

2.2 Group Formation

Students are required to make group of maximum 4 Students from their own branch or for Interdisciplinary Project (category-II) maximum 4 students from various branches can form their group. Group formation should be done considering field of interest, area of Research, Budget sharing of Project work etc. Student can start formation of their groups at the end of 6th Semester.

2.3 Nominations of Departmental Project Coordinator and Formation of Project Panel

Each Department is required to nominate one faculty member as Departmental Project Coordinator. Department should also form a Departmental Project Committee and submit details. Students are required to contact departmental coordinator for any managerial query related to their project. For technical guidance, they have to contact their project supervisor.

***Departmental Project Committee** can ideally be consists of three Faculty members preferably (i) Departmental project coordinator, (ii) One Sr. Faculty member/s and (iii) Head of Dept. (Min 3 faculty members).

2.4 Types of Projects

- (i) **Industry Projects:** It is a project based on the challenges; problems raised by the Industries related to certain process or Function. Students will be allotted time to work with industry in the pre-defined days only. Definition of industry contains Corporate Sectors, small /mid/ large capital Companies, Hospitals, NGOs, Workshops, Licensed/ Chartered Consultants running Company etc. Any unofficial Company / organization running project making, software consultants, Tuition classes, Software Training Centers etc. will not be consider as Company and those projects shall not be approved or it can be cancelled and put on hold if students found to be engaged with this kind of organizations. Those who want to do Industry Projects have to come up with topic, brief methodology, Scope, Feasibility, costing etc., to the departmental project panel and present the problem with necessary details. Student will work in complete guidelines of the department. Activities required to be completed in semester seven is mainly literature review. Student can go to industry in Semester eight, if required. Topic shall be finalized by the mentor from industry and Departmental Project Panel.

(ii) **In house Projects:** it is the project based on the requirement raised by Own department (**Category-I**), Other department of parent institute (**Category-II**), other Colleges of Parul University (**Category-III**), Student / Student group itself (**Category-IV**). The aim is to develop the certain Test rigs, Softwares, Apps, Laboratory equipments, modifications in existing instruments and Processes, Circuits, Modules, New Product Development, etc.

2.5 Collecting Titles of Industry Projects and In house Projects

(Deadline:1st Week of 7th Semester)

(a) Departmental Project Committee is required to identify the major fields/ areas of project supervisors precisely (SHEET-1), Spreadsheet is shared with HODs and Dept. coordinators. (i.e. Mechanical Engineering : Major fields shall be Thermal, Design, Manufacturing, CFD, I.C./Auto etc.

(b) Submit the required data in the spreadsheet shared. The details of all the Supervisors will be displayed centrally to the all the students of Faculty of Engineering and Technology.

(c) Departmental Project coordinator is required to collect titles of industry project in the prescribed spreadsheet format (format-I)

Industry Project Titles: Faculty members can provide the project titles liaison with industry supervisor.

In house Project Titles:

Category-I (Departmental Projects): Each Faculty member is required to provide 4 no. of titles of their own Work/ Filed / Interest / Research.

Category-II (Inter disciplinary Projects): Each Faculty member is required to provide 1 no. of interdisciplinary project title.

Category-III (Inter college Projects)*: Project titles from different colleges can be collected by sharing Google Form with other institute within the campus or it can be tailor made as per requirement of that particular institute and data will be collected centrally.

***Note:** Those who provide Category-III projects is a primarily a user of that project/model/prototype/Device/Instruments etc., NOT mandatorily responsible for project planning and Execution.

2.6 Project Identification Exercise(PIE) (Deadline:2nd week of 7th Semester)

(a) Student group needs to submit the hardcopy of the PROJECT IDENTIFICATION EXERCISE (PIE) Annexure-II to the Departmental Project Coordinator.

(b) The Same details of their group member Names, Enrollment no, Email address, mobile no., project title, industry / In house Project (Category –I, II, III & IV) through Project Identification Exercise (PIE). Refer Annexure II. Department can generate the Google form to collect the same data as required in PIE form.

2.7 Selection of Project Title (Deadline: 2nd week of 7th Semester)

Selection of Industry Projects: A student or group of students can approach the company of interest by their own. Department will provide them the NOC (Permission / Request letter/NOC-Annexure-I) to do industry projects. To do industry projects, it is desirable to have industrial training before approaching for industry projects. Project title of the Industry projects will be decided in consultation with both Industry mentor, institute supervisor and Departmental Project Committee. Student/s will submit their project proposal through PIE to Departmental Project Committee. However, student group can also select industry project from the list provided by department.

Selection of In house Project (Category- I, II, III & IV): Departmental Project Committee will meet after title collection through PIE and will scrutinize all the project proposals, will inform concern student about acceptance/ rejection / alteration / changes in their project proposals.

2.8 Publishing Project Titles (Deadline: last day of 1st week of 7th Semester):

- (a) Departmental Project Coordinator will segregate the titles as per the fields identified and publish industry project and Category-I within the department as per the format (format-II).
- (b) Category-II and Category-III Projects will be collected and displayed centrally at institute / faculty level.
- (c) Category-IV Projects need not to be display.

2.8 Identification of Groups

Each group will be identified by unique PROJECT ID PUXX_01 (i.e. for Mechanical it MUST be PUME_01, PUME_12, PUME_101). Project report and .ppt/x must be identified like PUME_01.docx, PUME_01.pptx etc.

PUME_1, PUme_03, PUME_012, PU ME_1, PUME-01 etc. are NOT allowed.

2.9 Finalization of Projects (Deadline: 3rd week of 7th Semester)

- (a) Departmental Project Committee will allocate the project supervisors on the basis of choice filled by students. Although it is not guaranteed that student group will be given the project supervisor of their choice. Project supervisors will be finalized by Departmental Project Committee in such a way that all project supervisors will get approximately equal number of projects.
- (b) Departmental Project Committee will check that there will not be a duplication of same project.
- (c) Departmental Project Committee will publish the final list at the end of 3rd week of 7th Semester.
- (d) Group of students needs to submit the form "**Self Declaration- Annexure-III**" to the Departmental project Coordinator. In case of Industry Projects group of Students also need to submit the copy of permission/ offer letter/ Sanction letter/ NOC from Company (whichever Applicable) to the departmental Project Coordinator. Student Group need to keep original with them and scanned copy to be attached in project report.

2.10 Departmental Level Project Seminar/s

Each Departmental coordinator is required to arrange departmental level Project seminar for students to educate about the project executions throughout the semester /year.

Topics to be covered:

- (i) how to do literature Review
- (ii) Report writing
- (iii) PPT makings
- (iv) Introduction to write a Review paper for paper presentation in Conferences/Journals.

The Detailed guidelines for above program will be provided to each dept.

2.11 Rules for Literature Review

Each student of the group are compulsorily required to review 5 research papers (i.e. if there are 4 students in the group then $4 \times 5 = 20$ different papers). They need to thoroughly study 5 papers each and need to present their work individually during Phase - 2 Evaluation. Follow Annexure-VI.

Over and above this student/(s) need to refer various reference books, more number of research papers, research reports, manuals, any type of published or unpublished work as a part of their literature review for the project and mandatorily cite the same in literature review and in references. While citing any work, student should not do direct copy and paste option but they need to paraphrase it. Their supervisor need to take care about this. For any case related to plagiarism student /(s) and supervisor both are responsible.

2.12 Review/ Research Paper publications (Refer University Notification 253)

Group of Students is compulsorily to write a review/ research paper once they pass Phase - 3 activities. Project supervisor is required to make aware students regarding review/research paper writing and publications. Departmental coordinator and Project supervisor shall inform students regarding upcoming conferences in India and Foreign countries. The working research paper/s could be based on actual work done by students in the project/start-ups related to similar technology/technologies related to project/trends in the subject /innovations/Patent analysis /any other analysis/Pedagogies related to their project or may be on actual Impact by the work.

2.13 PU Project Monitoring System and Evaluation

(a) **Each Departmental coordinator** needs to publish detailed schedules of Mid-Semester evaluation of the project in the 9th week of every Semester, will nominate the Evaluator/s, Prepare EVALUATION SHEET/MARKSHEET/ ATTENDANCE SHEETS (format-V) for every presentation.

(b) **Each student group** needs to prepare STUDENT EVALUATION CARD (Annexure-IV) by their own. Student group needs to carry the same for every Presentation/Evaluation. Evaluator will sign and give comments in the same card. This card is to be maintained and will be kept with Departmental Project Coordinator only. Before presentation/evaluation student will collect the same from Departmental Project Coordinator. Each Project Supervisor will mandatorily remain present during their group's presentation/evaluation. The card will be collected back after remarks from evaluators, by project supervisor and handed back to Departmental Project

Coordinator. Without Report card, the group shall not be eligible for attending External Viva. It is mandatory to be present in every presentations (Internal and External) as for every presentation the marks are allotted. If the student/ student group is absent then it will be considered as 0.

- (c) **Each project supervisor** needs to maintain Hard copy of the **PROGRESS AND MEETING CARD** (Annexure-v). It is solely the responsibility of project supervisor to keep it maintained. Progress of work, student meeting etc. to be fill in the card on regular basis.
- (d) **Each Evaluator** will Evaluate the Projects using rubrics, give comments in STUDENT EVALUATION CARD and marks in EVALUATION / MARK SHEET (Annexure-v) in hard copy. The same Evaluation Comments is to be enter in soft copy also and marks are to be enter in mark-sheet. (Annexure-viii).

2.13 Time Duration of the Project

- (a) Duration of the Project is of 1 year.
- (b) Faculties having project in one semester i.e. 8th semester of Agriculture Engg. have to finish all 7 phases of activities in that semester.
- (i) **Brief Time line:**
 - In Semester 7**, Phase 1 within 1st – 3rd week, Phase 2 within 4th – 11th weeks, Phase 3 within 12th - 16th week,
 - In Semester 8**, Phase 4 within 1st – 3rd week, Phase 5 – 4th to 11th week, Phase 6 – 12th to 14th week, Phase 7 - 15th & 16th week.
- (ii) **Evaluation** for internal component will be done at the end of Phase 2 and Phase 5.
- (iii) Hard Bound Project Report is to be submitted at the end of semester 8.

2.14 Patents/ Copy Rights

Departmental Project Committee is required to identify the projects, which have potential to file for patents and copy rights, and provide the necessary data required by the Research & Development Cell of PU and to organize the presentations of nominated projects in consultation with R&D Cell of PU. However, It is solely a responsibility of the Project supervisor and students those are applying for patents and copyright. Research and Development Cell of PU shall take the presentation of the nominated projects for scrutiny and Evaluations at various stages.

2.15 Tech Expo

Students are encouraged to participate and display their models, software, apps, and prototypes in the TechExpo – (A technical project Exhibition arranged at University Level). Departmental Project Committee is required to identify the projects, which has potential to highlight in the University Level Event “TECH EXPO” and provide the necessary data required by the TECH EXPO organizers. However, It is solely a responsibility of the Project supervisor and students those are applying show-casing their projects.

2.16 Plagiarism Checks

Parul University follows Zero Tolerance Policy against Plagiarism. Each student needs to do Plagiarism check through the open source Plagiarism check soft wares and generate report. Student Group need to attach the certificate at the end of each semester in the Project Report.

2.17 Role of the Supervisor / Tutor

The supervisor will

- Make themselves available for regular meetings for the duration of the project.
- Guidance in the checking the feasibility of the project.
- Advice in the project's title, aims, objectives and methodology.
- Give technical advice and support.
- Authorise the procurement of any material, if required through proper channel.
- Prepare progress reports.
- Advise on the format and contents of the written report.

Roles and Responsibilities of the Student

Responsibility lies with the student to:

- Read the project guidelines carefully.
- Identify and agree on a title with a supervisor.
- Arrange to have regular meetings with their supervisor and attend these meetings.
- Complete and submit all reports to the supervisor by the due date.
- Write and compile a project report as per guidelines.

2.18 Study Report writing Guidelines

The **final report** should contain 3 chapters including Abstract, Introduction, Literature review and Methodology of the selected project title. There is no limitation for the references to be added in the literature review. They can refer Textbook, website and more research papers, which they found relevant to their project topic.

- **Title Page** As per specified format
- **Acknowledgement** Proper acknowledgement by the students, if required.
- **Abstract** It is the condensed version of the project, which contains aim, methods used, important results obtained and major conclusions in a **paragraph form**. The write up should be self-contained and list of references need not be there. The abstract **should occupy maximum one page (250 to 300 words)**. The bottom line should contain **key words**.
- **Contents** The content shall follow the abstract and indicate the page numbers of the chapters, sections, sub-sections, appendixes and references. The number and titles of all the items must be clearly entered with page numbers against them.
- **Nomenclature:** Nomenclature will follow the contents. Its purpose will be to define all the symbols, abbreviations, Greek or Latin letters, superscripts etc.
- **CHAPTER 1 Introduction** Introduce the project problem; define the scope, aim and objectives of the project.

- **CHAPTER 2 Literature Review** Describe the literature/Theory relevant to a fields or topic of the project
- **CHAPTER 3 Experimental setup and Methodology** Deals with the experimental investigation and methodology planning to do in the project work. This chapter should be detailed to give deep insights into the experimentation associated with the project.
- **Work need to be complete in the future:** Give suggestions for Project work in next semester based on the literature review.
- **References**

Final Report Format

- Prepare the Project Report as per following guidelines.
- The length of the main body text should be between 7,000 to 8,000 words. (20 to 25 pages)
- **Paper:** White A4 sheet, typed on only one side.
- **Margin:** Left 1.5", top 1", right 1" and bottom 1".
- **Typing :**
- **Chapter Title:** **Arial Rounded MT Bold** (Upper Case), size 16 (e.g. **CHAPTER 1**)
- **Main Heading:** Calibri Bold, size 12 (e.g. **1.1 Introduction**)
- **Sub Heading:** Calibri Bold, size 11 (e.g **1.1.1 Dynamic Source Routing Protocol**)
- **Body text:** Calibri, size 11, Justified
- The chapters will be designated by Arabic numerical, CHAPTER 1, CHAPTER 2 ... etc. The sections of a chapter will be numbered using decimal type notations, e.g., 1.2 refers to the second section of chapter 1.
- **Figure and Table captions:** Calibri, size 10, Centre aligned, Decimal type notations will be used for numbering the figures/photos, charts, tables and drawings in a chapter (e.g. Figure 1.2, Table 2.2 etc.)
- The pages carrying the declaration, acknowledgement, abstract, contents, nomenclature, list of tables, list of figures will be numbered by using one set of small roman numerical (i, ii, iii...).
- Page numbers at the bottom right hand side – **Page X of Y** format is recommended.
- Equations should also be numbered in decimal type notation within the brackets.
- Appendixes will be numbered with capital Roman numerical, e.g. Appendix I, Appendix IIetc.
- **Paragraph alignments:** Paragraphs – justified
- **Line spacing:** 1.5 line spacing
- **Additional Spacing**
- Paragraphs should have one empty space between them. A similar space should be inserted above and below headings to keep them clear of the main text.
- **Margins:** Each typed sheet will bear the margin shown here. Left 1.5", top 1.5", right 1" and bottom 1".
- **Binding:** Before submission the report must be spiral bound using a black colour spiral spring. It must be submitted on or before due date finalized by the department.

2.19 Harvard Referencing / Citation System

2.19.1 How to Reference a Book

A reference to a book, thesis or dissertation has the following structure.

- **Author's surname** followed by a comma.

- **Author's initials** in capitals, with full stop after each and a comma after the final full stop.
- **Year of publication** followed by full stop.
- **Full title** of book in italics with capitalization of first word and proper nouns only - followed by full stop unless there is a sub-title. If there is a sub-title, this follows a colon at end of full title, with no capitalization except for proper nouns - follow by full stop.
- **Edition number** followed by the abbreviation "ed." - followed by full stop. Only include this if not first edition.
- **Place of publication:** Town or city, follow by colon.
- **Publisher - company name followed by full stop.**

Example:

Russell, D.E. & Norvig, P., 2009. *Artificial Intelligence: a modern approach*, 3rd ed. Prentice-Hall.

2.19.2 How to Reference a Journal Article

A reference to a journal article has the following structure:

- **Author's surname** followed by a comma.
- **Author's initials** in capitals, with full stop after each and a comma after the final full stop.
- **Year of publication** followed by full stop.
- **Full title of the article - not in italics** - with capitalization of first word and proper nouns only - followed by full stop unless there is a sub-title. If there is a sub-title, this follows a colon at end of full title, with no capitalization except for proper nouns - followed by full stop.
- **Full title of journal**, in italics, with capitalization of key words - followed by comma.
- **Volume number**
- **Issue/Part number** in brackets, followed by comma.
- **Page numbers** preceded by "pp." for a range of pages and "p." for a single page - followed by full stop.

Example:

Knuth, D.E. & Moore, R.W., 1975. An Analysis of Alpha-Beta Pruning, *Artificial Intelligence* 6(4), pp. 293-326.

2.19.3 How to Reference a Conference Paper

A reference to a conference paper has the following structure.

- **Author's surname** followed by a comma.
- **Author's initials** in capitals, with full stop after each and a comma after the final full stop.
- **Year of publication** followed by full stop.
- **Full title of conference paper - not in italics** - with capitalization of first word and proper nouns only - followed by full stop unless there is a sub-title. If there is a sub-title, this follows a colon at end of full title, with no capitalization except for proper nouns - followed by full stop.
- **Full title of conference**, in italics, with capitalization of key words - followed by comma.
- **Location** followed by a comma.
- **Date** followed by a comma.

- Publisher (company name) followed by colon.
- Place of publication (town or city name) follow by full stop.

Example:

Brin, S. & Page, L., 1998. The Anatomy of a Large-Scale Hypertextual Web Search Engine. In: *Seventh International conference on World-Wide Web (WWW 1998)*, April 14-18, 1998, Brisbane, Australia.

2.19.4 How to Reference a Website

A reference to a website has the following structure.

- **Authorship or Source** - followed by comma
- **Year** - followed by full stop.
- **Title of web document or web page** - in italics - followed by "[Online]"
- **Date of most recent update** - within round brackets.
- **Available at** - followed by the URL (underlined)
- **Date of most recent access** - in square brackets - followed by full-stop

Example:

Creaney, N., 2008. *Legal Issues for IT Professionals* [Online] (Updated 26 September 2008) Available at: <http://knol.google.com/k/n/-/1hzaxtdr9c09g/7> [Accessed 30 January 2009].

2.19.5 How to Reference a Corporate Publication

Corporate publications frequently do not name the author. In these cases, the name of the organisation may replace the author's name. For example:

Example:

Anglia Ruskin University, 2007. *University Library: guide to Harvard style referencing* [Online] (Updated September 2008), Available at: <http://libweb.anglia.ac.uk/referencing/harvard.htm> [Accessed 30 January 2009].

2.19.6 How to Reference an Unpublished Work

If a work has been accepted for publication but not yet published, the reference is structured as follows:

Example:

Creaney, N., (in press) *Dummies Guide to Professional Ethics*. O'Reilly

If a work is circulated informally but not published - for example lecture notes - then the reference is structured as follows:

Example:

Creaney, N., 2009. *Lecture Notes on Professional Ethics*. [Leaflet] University of Ulster

3. Time line 7th – 8th Semester

3.1 Time line for 7th Semester

Sr No	Phases	Key Activities	Time Line	Evaluation	Submission
1.	Phase-1 Pre Project Exposure program and PIE	<ul style="list-style-type: none"> Explaining the students about importance of Industry Projects /In House Projects and necessary awareness. Colleges/departments need to arrange such exposure program during orientation at the start of the 7th semester and explain students about entire innovation process based on Design Thinking, basic idea about Industry /Inhouse Projects, necessary steps needed and other guidelines. Briefing about innovation and various aspects about innovation and its impact so that students can innovate through their final year project. Selection of Project Title. Choice filling of Project titles and supervisors Selection through Project Identification Exercise (PIE). Departmental level Seminar 	1 st week 2 nd week 3 rd week 3 rd week	NA	NA
2.	Phase - 2 Problem Definition, Literature Review Methodology	<ul style="list-style-type: none"> Observation/Studying the products or processes for selected domain to find out challenging needs of users. Search for patents/ Copyrights/Research papers/Journals and other related literature for selected problem. Literature review / Web search / research publication, User feedback, Vendor Search / Market Search Analysis of existing Technology Start-ups Critical Review of 5 Journal Papers Identification of problem/s related to selected domain through Analysis and similar design thinking approaches. Problem Statement and Definition from all above exercise. Selection of Proper Tools / Techniques for Implementation. Ideas should be presented in drawings / sketches / mock ups / any innovative technique to simulate and check primary concepts. Think about solutions / ideas for different context, geography, demography, usage around the same challenge or similar. 	4 th week- 11 th week	50 marks	PPT Presentation of Introduction, Problem Definition and Literature Review.
3.	Phase - 3 Report Writing, Potential customer validation/ User feedback	<ul style="list-style-type: none"> Final Report writing/Proof Reading. Plagiarism Check. On the basis of the feedback from the faculty supervisor, User team will work on Redesign/Reject/Retain phase. 8th Semester project plan. Student / Group of Students along with supervisor here can start the writing of 	12 th week- 16 th week	50 Marks for report by Project Supervisor	Final Report to be corrected by Project supervisor, Spiral Bound 1 copy duly Signed by Project Supervisor/s*, Project Coordinator/s*, and Head of Department/s*.

Sr No	Phases	Key Activities	Time Line	Evaluation	Submission
		<p>Review/Research Paper for publications in Journal and proceedings.</p> <ul style="list-style-type: none"> • Plagiarism Checks 			Soft copy of PPT and word file Report to be submitted to department.
4.	External viva	<ul style="list-style-type: none"> • End Semester Exam 	17 th week-18 th week (Detailed scheduled to be published on University Website)	50 marks for Presentation + 50 marks for report by External Evaluator,	PPT Presentation and Report Submission (spiral bound)

3.2 Time line for 8th Semester

Sr No	Phases	Key Activities	Time Line	Evaluation	Submissions
1.	Phase - 4 Project Execution	<ul style="list-style-type: none"> • Technical knowledge acquisition to implement the project. 	1 st week-2 nd week	NA	NA
2.	Phase - 5 Periodic progress of Prototype / Model Development	<ul style="list-style-type: none"> • Manufacturing, Webpage Developments, Software developments should be continuously in progress. • By this stage, the proto-type of the final year project should be in consolidation stage. • Hardware, Software, APPs, Web Pages, DOE must be ready in terms of Specifications, Design Data, Coding, Programming, Configurations, Purchasing of Parts, Final Design and modeling, technology management during this phase. • Technological Issues must be challenged in this phase as there is still a chance of improvement and encountering challenges. • Student / Group of Students along with supervisor here can finalize start publication of the Review/ Research Paper for publications in Journal and Conference proceedings. (Optional). 	3 rd week- 11 th Week	50 marks	PPT Presentation and Partial Report Submission of Development Stage.
4.	Phase - 6 Final Prototype/ Model/ Product Design	<ul style="list-style-type: none"> • After all the 5 steps/phases as mentioned above, the teams will iterate for different steps before making the final product. While developing the product the teams will implement their technical knowhow and compare the solution with near similar existing innovations by different user or market. 	12 th week- 14 th week	NA	

		<ul style="list-style-type: none"> • A version of prototype is essential with all details of iterations and modification. • Testing/ Demonstrations of work. • Final Results to be justified. • College level Project Exhibition/Tech Expo and award/appreciations to best ones in presence of industry experts and mentors. 			
5.	Phase 7 Final Report Writing and Demonstrations	<ul style="list-style-type: none"> • Report writing at the last final stage and corrections to be resolved. • Plagiarism Checks. • Review/Research Paper to be finalized for conferences or Journals. 	15 th week- 16 th Week	NA	<p>Final PPT and Final Report to be corrected by Project supervisor, Hard Bound (2 copies Signed by Project Supervisor/s*, Project Coordinator/s*, and Head/* of Department).</p> <p>Soft copy of PPT and word file Report to be submitted to department.</p>
6.	External Viva	<ul style="list-style-type: none"> • End Semester Exam 	Detailed scheduled to be published on university Website	<p>50 marks for Presentation + 50 marks for report by External Evaluator</p> <p>50 Marks for report by Project Supervisor</p>	PPT Presentation and Report Submission to the Department and Project Supervisor.

ANNEXURE – I



PARUL UNIVERSITY
FACULTY OF ENGINEERING AND TECHNOLOGY
ENGINEERING DEPARTMENT

@DATE@

Ref No.: PU/FET/PIET/ME/2018/TRG/@ટાઇમસ્ટેમ્પ@

To,

HR MANAGER,

@COMPANY NAME@,

@COMPANY ADDRESS@

@STATE@.

Subject: - Vocational Training leading to Projects for the Student of B.TECH – Mechanical for the A.Y 2018-2019.

Dear Sir,

We are pleased to inform you that **PARUL UNIVERSITY**, which is the largest university in the Gujarat State, has taken an Innovative step to bring Industry & Academic Institutions on a common platform for the mutual benefit.

Prime objective of **Parul Institute of Engineering and Technology** is to send out its students to industries and various organizations for industrial Training, which may lead to carry Project work and Case studies. Further, in the Final year, the students of PU have Projects as part of curriculum and student can opt for Industry Projects for solving challenges faced by industries in recent times, which may lead to improvement in products or processes.

Herewith, we request you to grant the below listed student of Degree Mechanical Engineering of **Parul Institute of Engineering and Technology (PIET)** to your esteemed organization for Summer Training, preferably, from @START DATE OF TRAINING@ to @END DATE OF TRAINING@. Student is supposed to prepare a Logbook and Training report during the training period and submit the Certificate to the Mechanical Department on the completion of the Training. In addition, Student can be given the projects identified and approved by industry, which student/s shall take as their final year Project.

Sr. No.	Name of Student	PU Enrollment No.
1	@NAME OF THE STUDENT@	@ENROLLMENT NO@

Thanking you and looking forward to your support.

HOD

MECHANICAL, PIET.

DEPARTMENT SEAL

ANNEXURE – I



PARUL UNIVERSITY
FACULTY OF ENGINEERING AND TECHNOLOGY
ENGINEERING DEPARTMENT

@DATE@

Ref No.: PU/FET/PIT/ME/2018/TRG/@ટાઇમસ્ટેમ્પ@

To,

HR MANAGER,

@COMPANY NAME@,

@COMPANY ADDRESS@

@STATE@.

Subject: - Vocational Training leading to Projects for the Student of B.TECH – Mechanical for the A.Y 2018-2019.

Dear Sir,

We are pleased to inform you that **PARUL UNIVERSITY**, which is the largest university in the Gujarat State, has taken an Innovative step to bring Industry & Academic Institutions on a common platform for the mutual benefit.

Prime objective of **Parul Institute of Technology** is to send out its students to industries and various organizations for industrial Training, which may lead to carry Project work and Case studies. Further, in the Final year, the students of PU have Projects as part of curriculum and student can opt for Industry Projects for solving challenges faced by industries in recent times, which may lead to improvement in products or processes.

Herewith, we request you to grant the below listed student of Degree Mechanical Engineering of **Parul Institute of Technology (PIT)** to your esteemed organization for Summer Training, preferably, from @START DATE OF TRAINING@ to @END DATE OF TRAINING@. Student is supposed to prepare a Logbook and Training report during the training period and submit the Certificate to the Mechanical Department on the completion of the Training. In addition, Student can be given the projects identified and approved by industry, which student/s shall take as their final year Project.

Sr. No.	Name of Student	PU Enrollment No.
1	@NAME OF THE STUDENT@	@ENROLLMENT NO@

Thanking you and looking forward to your support.

**HOD
MECHANICAL, PIT.**

DEPARTMENT SEAL

ANNEXURE – II



PARUL UNIVERSITY
FACULTY OF ENGINEERING AND TECHNOLOGY
ENGINEERING DEPARTMENT

PROJECT IDENTIFICATION EXERCISE (PIE)

Student / Group will Type and Print this doc, and submit to the Departmental Coordinator within the Deadline.
 Use Extra space if needed. Student Group needs to fill the same data in google form also.

1. Group Information

SR NO	NAME OF THE STUDENTS AND SUPERVISOR	ENROLLMENT NO.	DEPARTMENT	PHONE NO.	SIGNATURE
1	TYPE /PRINT	TYPE /PRINT	TYPE /PRINT	TYPE /PRINT	
2	TYPE /PRINT	TYPE /PRINT	TYPE /PRINT	TYPE /PRINT	
3	TYPE /PRINT	TYPE /PRINT	TYPE /PRINT	TYPE /PRINT	
4	TYPE /PRINT	TYPE /PRINT	TYPE /PRINT	TYPE /PRINT	
5	TYPE /PRINT	SUPERVISOR	TYPE /PRINT	TYPE /PRINT	

2. Group Information

Group Strengths	Group Weaknesses
TYPE /PRINT	TYPE /PRINT
TYPE /PRINT	TYPE /PRINT
TYPE /PRINT	TYPE /PRINT

3. Project Topic Knowledge

Criterion	Remarks
Constraints	TYPE /PRINT
Understanding of the Issue	TYPE /PRINT
Is the Project Topic already extensively investigated?	TYPE /PRINT
Likely Problems / Research Limitations in the proposed project	TYPE /PRINT

4. Topic Selected

Type of Project: Industry / In house (Category – I, II, III, IV) (Refer Guidelines point 2.5 for Categories)

Title of the Project Identified	TYPE /PRINT
Aim:	TYPE /PRINT
Objective(s): (Min 3)	TYPE /PRINT 1. 2. 3.
Methodology:	1. TYPE /PRINT 2. 3. 4. 5. 6. 7. 8.
Are the environmental and societal implications arising out of the proposed project?	
YES / NO	

5. PROJECT FEASIBILITY AND SUPERVISOR'S CONSENT (To be completed by the supervisor)

Points	Details for verification	Yes / No
Title of the Project Identified	Is title of the proposed / identified project, found to be appropriate, relevant and finalized after supervisor's consent?	
B. Tech. level challenge	Does the Project Proposal submitted have adequate and achievable challenge levels of B.Tech.?	
Facilities, software and infrastructure	Are equipment / facilities required for doing this project available at institute? If not, are alternate arrangements possible?	
Time lines	Will 2 Semesters (Project 1 / I + Project 2 / II) be adequate for achieving all the objectives mentioned in the proposal?	
To which area group does the proposed project belong?		

Name and Signature of the Supervisor with Date:

ANNEXURE – III



PARUL UNIVERSITY
FACULTY OF ENGINEERING AND TECHNOLOGY
ENGINEERING DEPARTMENT

SELF-DECLARATION (by Student/s & Supervisor) of each Project**SUPERVISOR COPY / STUDENT COPY**

SELF-DECLARATION (by Student/students/Supervisor) of each Industry/In house Projects (Student copy has to be submit to departments with all details to be printed and sign. Supervisor copy to be kept with Project Supervisors).

I/We

TABLE-1

SR NO	NAME OF THE STUDENTS	ENROLLMENT NO. OF STUDENTS
1	TYPE /PRINT	TYPE /PRINT
2	TYPE /PRINT	TYPE /PRINT
3	TYPE /PRINT	TYPE /PRINT
4	TYPE /PRINT	TYPE /PRINT

The **students and Project Supervisor (Internal)** of _____ Engineering Branch, at **PIET/PIT, Limda, Waghodia- College Code -03/04** hereby certify and declare the following:

- 1) I/we have defined my/our project based on inputs at PIET/PIT/ (_____) Industry / User and each of us will make significant efforts to make attempt to solve the challenges. I/we will attempt the project work at my college or at any location under the direct and consistent monitoring of _____ (Supervisor name / Industry / user). We will adopt all ethical practices to share credit amongst all the contributors based on their contributions during the project work.
- 2) I/we have not purchased the solutions developed by any 3rd party directly and the efforts are made by me/we under the guidance of supervisors.
- 3) The project work is not copied from any previously done projects directly. (Same project can be done in different ways but if it has been done in same manner before then it may not be accepted)
- 4) _____ (Name of industry/User) to the best of my knowledge is a genuine industry engaged in the professional service/social organizations.
- 5) We understand and accept that the above declaration if found to be untrue, it can result in punishment/cancellation of project definition to me/we including failure in the subject of project work.
- 6) I/We will be allowed to use the resources of Parul University like Software Laboratories, Workshop, Machines, Test rigs, Instruments, Computers etc. with prior permission of the Head of Department.

- 7) I/We will follow the Safety Rules while using resources at Workshop, Chemical Laboratory or any hazardous laboratories within PU campus/ Outside PU campus.
- 8) I/We will purchase the consumables of special requirements by my/our own for the machines/laboratories of Parul University. (i.e. Specific drill bits, grinder wheels, G.I Sheets, Channels, microcontrollers, chips etc.
- 9) I/We shall indemnify and keep indemnified the Institute against any liability, demand, claim, loss or lawsuit in respect of personal injuries to me and/or to anybody and/or property damage arising out of or caused by my negligent act or omission during the my usage.
- 10) I/We hereby declare that I/we the student/s have selected the Project Supervisor Prof. _____ of PIET / PIT _____ Engineering.
- 11) I, the Project Supervisor Prof. _____ have selected the above students in TABLE-1 and will approve only above students for the Project Title _____ in college level all activities.

Date: _____

Place: LIMDA.

Here in sign__(below)_____ Here in Witness_____ (Sign of HOD)

SR NO	NAME OF THE STUDENTS AND SUPERVISOR	ENROLLMENT NO. OF STUDENTS	DEPARTMENT	PHONE NO.	SIGNATURE
1	TYPE /PRINT	TYPE /PRINT	TYPE /PRINT	TYPE /PRINT	
2	TYPE /PRINT	TYPE /PRINT	TYPE /PRINT	TYPE /PRINT	
3	TYPE /PRINT	TYPE /PRINT	TYPE /PRINT	TYPE /PRINT	
4	TYPE /PRINT	TYPE /PRINT	TYPE /PRINT	TYPE /PRINT	
5	TYPE /PRINT	SUPERVISOR	TYPE /PRINT	TYPE /PRINT	

ANNEXURE - IV



PARUL UNIVERSITY
FACULTY OF ENGINEERING AND TECHNOLOGY
ENGINEERING DEPARTMENT

Student Evaluation Card (7thsemester)

Project Group Identification	PUME_ <small>TYPE /PRINT</small>
Project Title	<small>TYPE /PRINT</small>
Type of Project	Industry/In house
Name of Project Supervisor	<small>TYPE /PRINT</small>

SR NO	NAME OF THE STUDENTS	ENROLLMENT NO. STUDENTS	DEPARTMENT
1	<small>TYPE /PRINT</small>	<small>TYPE /PRINT</small>	<small>TYPE /PRINT</small>
2	<small>TYPE /PRINT</small>	<small>TYPE /PRINT</small>	<small>TYPE /PRINT</small>
3	<small>TYPE /PRINT</small>	<small>TYPE /PRINT</small>	<small>TYPE /PRINT</small>
4	<small>TYPE /PRINT</small>	<small>TYPE /PRINT</small>	<small>TYPE /PRINT</small>



PARUL UNIVERSITY
FACULTY OF ENGINEERING AND TECHNOLOGY
ENGINEERING DEPARTMENT

Date: _____

MID SEMESTER PROJECT EVALUATION – 7th Semester

Sr. No.	Comments given by Internal Review Panel	Modification done based on Comments (To be filled by Supervisor)
Particulars	Internal Review Panel	
	Expert 1	Expert 2
Name:		
sign		



PARUL UNIVERSITY
FACULTY OF ENGINEERING AND TECHNOLOGY
ENGINEERING DEPARTMENT

Student Evaluation Card (8thsemester)

Project Group Identification	PUME_ <small>TYPE /PRINT</small>
Project Title	<small>TYPE /PRINT</small>
Type of Project	Industry / In house
Name of Project Supervisor	<small>TYPE /PRINT</small>

SR NO	NAME OF THE STUDENTS	ENROLLMENT NO. STUDENTS	DEPARTMENT
1	<small>TYPE /PRINT</small>	<small>TYPE /PRINT</small>	<small>TYPE /PRINT</small>
2	<small>TYPE /PRINT</small>	<small>TYPE /PRINT</small>	<small>TYPE /PRINT</small>
3	<small>TYPE /PRINT</small>	<small>TYPE /PRINT</small>	<small>TYPE /PRINT</small>
4	<small>TYPE /PRINT</small>	<small>TYPE /PRINT</small>	<small>TYPE /PRINT</small>



PARUL UNIVERSITY
FACULTY OF ENGINEERING AND TECHNOLOGY
ENGINEERING DEPARTMENT

Date: _____

MID SEMESTER PROJECT EVALUATION – 8th Semester

Sr. No.	Comments given by Internal Review Panel	Modification done based on Comments (To be filled by SUPERVISOR)
Particulars	Internal Review Panel	
	Expert 1	Expert 2
Name:		
sign		

ANNEXURE – V

**PARUL UNIVERSITY****FACULTY OF ENGINEERING AND TECHNOLOGY**

(BE KEPT WITH PROJECT GUIDE ONLY (separate copies for 7th and 8th sem))

PARUL INSTITUTE OF ENGINEERING AND TECHNOLOGY**DEPARTMENT****PROGRESS AND MEETING CARD OF PROJECT**

A.Y -2018-2019	BRANCH : _____.	SEMESTER :	7th / 8th	
GROUP ID: PUME_				
TITLE OF THE PROJECT :				
NAME OF PROJECT SUPERVISOR (INTERNAL):				
NAME AND CONTACT NO. OF INDUSTRY MENTOR(IF ANY):				
INDUSTRY PARTICULARS(IF ANY):				
SR NO	ENROLLMENT NO	NAME OF THE STUDENT	MOBILE NO	

WEEK NO	Meeting Date	DETAILS OF WORKDONE	SIGNATURE OF STUDENT	SIGNATURE OF SUPERVISOR
WEEK 01				
WEEK 02				
WEEK 03				
WEEK 04				
WEEK 05				

WEEK NO	Meeting Date	DETAILS OF WORKDONE	SIGNATURE OF STUDENT	SIGNATURE OF SUPERVISOR
WEEK 06				
WEEK 07				
WEEK 08				
WEEK 09				
WEEK 10				
WEEK 11				
WEEK 12				
WEEK 13				
WEEK 14				
WEEK 15				
WEEK 16				
Comments from H.O.D: Satisfactory/ Unsatisfactory		Sign. of HOD		

ANNEXURE – VI



PARUL UNIVERSITY
FACULTY OF ENGINEERING AND TECHNOLOGY
ENGINEERING DEPARTMENT

CRITICAL EVALUATION OF JOURNAL PAPER

This activity is an individual activity. Each student has to refer FIVE research papers related to their project title and each paper is to be reviewed as per below. Student need to prepare word file for each paper evaluation and submit it.

6. Student Details

Student Name:	<Name of Student>		
Enrollment No	TYPE/PRINT	Branch:	
Title of Journal Paper	TYPE/PRINT		
Authors	TYPE/PRINT		
Journal / Conference:	TYPE/PRINT		
Volume / Issue	TYPE/PRINT	Pages:	

7. Dissection of Paper

Section 01:Abstract / Introduction (Read the abstract and answer the following questions)

- 1 What is the objective of the Paper?
- 2 What are the main results mentioned in the abstract?
- 3 What rational is given by the authors, attributing importance to the research problem?
- 4 How many earlier works are cited by the authors, and what are the perceived drawbacks of these earlier works?

Section 02: Methodology

- 1 Describe the methodology is used by author(s) to address the research problem?
- 2 In what way the methodology used by the authors is relevant to the methodology you proposed to adopt?

Section 03:Results and conclusions

- 1 What are the variables used for the analysis
- 2 List the results obtained by the authors.
- 3 What are the conclusions drawn by the authors from the study.

Write a critical analysis of the paper(about 200 words)

[Critical Analysis shall contain introduction to the topic, aim, methodology, key findings and important conclusions]

ANNEXURE - VII
MARKING RUBRICS FOR PROJECT – 1 / I

CONTINUOUS EVALUATION PART

PART 1: POWER POINT PRESENTATION – MARKING RUBRICS

Evaluated by Project Supervisor during Mid-Semester Review of project – Will be part of Continuous Evaluation – Evaluation done out of 100 Marks – Weightage will be 25 Marks.

Name of student: _____ Enrolment No. _____

Sl. No.	Criteria	Max Marks	Marks Awarded Supervisor	
1	Statement of the Research problem (Topic)	10		
2	Aim, Objectives and Methodology	20		
3	Justification of the problem	10		
4	Summary of Critical Evaluation of Journal Papers (5 Journal papers minimum)	25		
5	Presentation and communication skills	15		
6	Relevance and quality of PPT slides	10		
7	References	10		
Total		100		
Marks Out of 25				

Remarks (Justification for the marks awarded)

Name and signature of the Project Supervisor with date:

CONTINUOUS EVALUATION PART

PART 2: CRITICAL ANALYSIS – MARKING RUBRICS

Evaluated by Project Supervisor during Mid-Semester Review of project – Will be part of Continuous Evaluation – Evaluation done out of 50 Marks per paper – Final Weightage will be 25 Marks.

Name of student: _____ Enrolment No. _____

Content	Maximum Marks	Marks Awarded				
		Paper 1	Paper 2	Paper 3	Paper 4	Paper 5
Does the work show an understanding of technical contents of the paper?	10					
Could the student clearly identify the objective of the paper and relate that to other earlier works cited in the paper?	10					
Did the student argue / evaluate the methods / techniques used by the authors of the paper?	10					
Could the student identify any novelty in the paper?	10					
Is there any scope for further investigation identified by the student?	10					
Total	$50 \times 5 = 250$					
Marks Out of 25						

Remarks (Justification for the marks awarded)

Name and signature of the Project Supervisor with date:

CONTINUOUS EVALUATION PART

PART 3: EVALUATION OF JOURNAL PAPER – MARKING RUBRICS

Activity – Critical Evaluation of Journal Paper – Evaluated by Project Supervisor – **Will be part of Report Evaluation** – Weightage 50 Marks

Total Five Critical Evaluation of Journal Paper – Each Evaluation will be of 100 Marks – Total $100 \times 5 = 500$ Marks – Reduced to Out of 50 Marks

Name of student: _____ Enrolment No. _____

Section 01:Abstract / Introduction (Read the abstract and answer the following questions)		Marks
1	What is the objective of the Paper?	[5]
2	What are the main results mentioned in the abstract?	[5]
3	What rational is given by the authors, attributing importance to the research problem?	[5]
4	How many earlier works are cited by the authors, and what are the perceived drawbacks of these earlier works?	[5]
	Section 02: Methodology	
1	Describe the methodology is used by author(s) to address the research problem?	[5]
2	In what way the methodology used by the authors is relevant to the methodology you proposed to adopt?	[5]
	Section 03:Results and conclusions	
1	What are the variables used for the analysis	[5]
2	List the results obtained by the authors.	[5]
3	What are the conclusions drawn by the authors from the study.	[5]
TOTAL FOR SECTION 01 TO 03		[45]
Write a critical analysis of the paper(about 200 words) [Critical Analysis shall contain introduction to the topic, aim, methodology, key findings and important conclusions]		[55]

Remarks (Justification for the marks awarded)

Name and signature of the Project Supervisor with date:

END SEMESTER EXAM

EVALUATION 1 – POWER POINT PRESENTATION - MARKING RUBRICS

Evaluated by External Evaluator during ESE of project – Evaluation done out of 100 Marks – Weightage will be 50 Marks.

Name of student: _____ Enrolment No. _____

Sl. No	Criteria For Marking	Max. Marks	Marks Awarded
1	Clear Representation of the Aim and Objectives in presentation.	10	
2	Project methodology presentation - supported by technical explanations.	15	
3	Literature Review.	15	
4	Planning for the Project work in next semester with activity bar chart.	10	
5	Student is able to defend his/her project (Question and Answer session)	15	
6	Relevance and quality of PPT slides	10	
7	Presentation is exceptionally clear, well-structured and theoretically informative.	10	
8	Adherence to Presentation etiquettes, body languages, communication skills etc.	10	
9	References	5	
Total Marks		100	
Marks Out of 50			

Remarks

Name and signature of the External Examiner with date:

END SEMESTER EXAM

EVALUATION 2 PROJECT – 1 / I REPORT – MARKING RUBRICS

Name of student: _____ Enrolment No. _____

Project Title _____

Grading	Section					
	Abstract	Introduction and Literature Review	Methodology	Suggestions for future work / project planning	Critical Evaluation of Journal papers (5 minimum)	References and Overall structure of the report
Fail 0 – 49%	Weak abstract; no clear information about aims, objectives methodology. etc.	Aims and objectives not clear; no attempt to cover the literature; no research questions identified from the review	Little understanding about methodology; major discrepancies in critical steps leading to final results	No suggestions for future work; poor planning for the project work; no clear activity bar chart	Poor and incomplete evaluation; irrelevant journal papers	Incorrect / irrelevant referencing, not in proper style; poor language, incorrect format and font size
Satisfactory 50-59%	Abstract with limited information but covers aims, objectives, methodology etc.	Aims and objectives fairly explained; poor attempt to cover the literature and identify the research problem.	Fair explanation of the methodology and data collection; limited application of engineering skills	Fair suggestions for future work; Limited project planning as reflected in activity bar chart	Fair evaluation; most journal papers are relevant	Fair referencing, some are in proper style; fair language, consistent font size and format
Good 60-69%	Fairly complete abstract; thorough information about the project; but lacks focus	Clear aims and objectives; but room for improvement; fairly good literature review;	Good explanation of the methodology and data collection method	Fair suggestions for future work; good planning for the project work with realistic activity bar chart	Good evaluation, well completed; all journal papers are relevant	Fairly referencing, most are in proper style; Correct font size and style; good language and format
Very Good 70-79%	Solid abstract; thorough information about the project ;but still there is room for improvement	Precise aims and objectives; Extensive and solid literature review	Thorough understanding of the methodology; Solid explanation of the methodology and data collection method	Good suggestions for future work; very good planning for the project work with clear activity bar chart	Very good evaluation, complete and concise; all journal papers are relevant	Proper referencing, all in prescribed style; very good format, font size and language
Excellent 80-89%	Exceptionally clear abstract ; well structured and well written statement of the study	Exceptionally clear and well structured introduction; well structured literature review ; demonstrates good power of analysis	Exceptionally good, and intelligent methodology; demonstrates high ability and originality in applying engineering skills.	Exceptionally Good suggestions for future work; excellent project planning with excellent activity bar chart	Excellent evaluation, critical, concise and complete in all respects; all journal papers are relevant	Exceptionally good, exhaustive and relevant referencing; Excellent font size, style and language,
Outstanding 90% and above	Truly outstanding work to be recognized in all respects; indicate highest level of achievement + criteria for 'Excellent' grade	Truly outstanding work to be recognized in all respects; indicate highest level of achievement + criteria for 'Excellent' grade	Truly outstanding work to be recognized in all respects; indicate highest level of achievement + criteria for 'Excellent' grade	Truly outstanding work to be recognized in all respects; indicate highest level of achievement + criteria for 'Excellent' grade	Exemplary evaluation, truly critical and outstanding work; all journal papers are relevant and appropriate + criteria for 'Excellent' grade	Truly outstanding work to be recognized in all respects; indicate highest level of achievement + criteria for 'Excellent' grade
Marks awarded (%)						
Weightage (%)	10 %	20 %	25 %	10 %	25 %	10 %
Final Mark						
					Total Marks / 100	
					Total Marks / 50	

Name and signature of the External Evaluator with date