



Bansilal Ramnath Agarwal Charitable Trust's
Vishwakarma Institute of Information Technology, Pune-48
(An Autonomous Institute affiliated to Savitribai Phule Pune University)
Department of Information Technology

Final Year Project Work Guidelines

B.Tech. (Information Technology)

2017 Course

(With effect from Academic Year 2020-21)

Project Title	:	Supply Chain Traceability for Organic Jaggery
Project Area	:	Blockchain
Internal Guide	:	Dr. Priya Shelke
Sponsoring Industry	:	EmerTech Innovations



SYLLABUS

Project Work (ITUA41176)

Examination Scheme:

Continuous evaluation: 100 Marks

PR/OR:50 Marks

Course Objectives:

1. To apply SDLC and meet the objectives of proposed development or research work
2. To test rigorously before deployment of work in objective 1
3. To validate the work undertaken during objective 1 and 2
4. To consolidate the development or research work as a project report.

Course Outcomes:

On completion of the course, the student will be able to—

1. Produce evidence of independent investigation
2. Analyze the results and their interpretation intensively and critically.
3. Report and present the original results in an orderly way and placing the open questions in the right perspective.
4. Link techniques and results from literature as well as actual research and future research lines with the research.
5. Appreciate practical implications and constraints of the specialist subject

Guidelines

The student shall complete the work of the Project which will consist of problem statement, literature review, SRS, Model and Design, Selection of Technology and Tools, Installations, UML implementations, testing, Results, performance discussions using data tables per parameter considered for the improvement with existing/known algorithms/systems and comparative analysis and validation of results and conclusions. The candidate shall deliver a presentation on the advancement in Technology pertaining to the selected project topic. The examinee will be assessed by a panel of examiners of which one is necessarily an external examiner. The assessment will be broadly based on work undergone, content delivery, presentation skills, documentation, question-answers and report. The student shall prepare and submit the report of Project work in standard format for satisfactory completion of the work that is duly certified by the concerned guide and head of the Department/Institute.



INDEX

- 1. Undertaking by Students**
- 2. Rules and Regulations**
- 3. Project Work Schedule**
- 4. Group Details**
- 5. Abstract Format**
- 6. Weekly Planning Sheet**
- 7. Log Book Format**
- 8. Title finalization Review Report format**
- 9. Project Review – I Check List**
- 10. Performance Evaluation Sheet – I (Review – I)**
- 11. Project Review – II Check List**
- 12. Performance Evaluation Sheet – I (Review – II)**
- 13. Project Participation**
- 14. Exam Evaluation Guidelines**
- 15. PROJECT REPORT FORMAT**
- 16. Project Sponsorship Allocation letter by Industry**
- 17. Project Completion Certificate by Industry format**

UNDERTAKING BY STUDENTS

We, the students of BTech I.T. hereby assure that we will follow all the rules and regulations of VIIT related to the project work for the academic year 2020-2021 semester VII. The Project entitled

Supply Chain Traceability for Organic Jaggery

will be fully designed and developed by us and no part of the project/ full project will be designed and developed by any external entity or copied from some external resources. We are fully aware that copying or taking help of any external agency in the development of our project is totally unethical and illegal. The examiners have / University has full rights to initiate an action against us as per University norms if involved in unfair/ illegal/ unethical work.

S r. N o .	Roll No.	Name of Student	Signature
1	431001	Aadesh Ingle	
2	431007	Ashish Gole	
3	431009	Ayush Bansal	
4	431028	Lokesh Budhlani	
5	431066	Siddesh Vyavahare	



Bansilal Ramnath Agarwal Charitable Trust's
Vishwakarma Institute of Information Technology, Pune-48
(An Autonomous Institute affiliated to Savitribai Phule Pune University)
Department of Information Technology

Rules & Regulations

1. All students must enter the correct information in the work book.
2. All the entries in the project work book must be verified by the concerned project guide.
3. Students must report to their respective guide on project day as per the time table.
4. Activities of the project work should be completed as per the project plan only.
5. Project group must submit soft copies of Project Abstract, Project Report and Publications in PDF format only.
6. Project group members submit **two** hard copies of Project Report in the format provided by department.
7. Project work book must be brought at the time of Project Reviews & Project Examination.
8. Any changes, if any, must be countersigned by the concerned project guide.
9. For project reviews and project examination, all students must report 15 minutes before the scheduled time.
10. For any query, concerned guide should be consulted.



Bansilal Ramnath Agarwal Charitable Trust's
Vishwakarma Institute of Information Technology, Pune-48
(An Autonomous Institute affiliated to Savitribai Phule Pune University)
Department of Information Technology

PROJECT WORK SCHEDULE

Sr. No.		Date
1.	Registration of Project Groups	Week 1
2.	Allocation of Guide and Project Topic Submission	Week 2
3.	Submission of Abstract to Project Guide and Project Coordinator in the Prescribed Format	Week 3
4.	Project Review – 0 (For topic and scope finalization)	Week 4
5.	Project Review - I	Week 7
6.	Project Review - II	Week 10
7.	Verification of Project Work Book by Internal Guide (before submission of Preliminary Project Report)	Week 11
8.	Submission of Final Preliminary Project Report in Prescribed Format	Week 12
	External Term-work Evaluation	As per Institute Schedule



Bansilal Ramnath Agarwal Charitable Trust's
Vishwakarma Institute of Information Technology, Pune-48
(An Autonomous Institute affiliated to Savitribai Phule Pune University)
Department of Information Technology

BTECH PROJECT GROUP DETAILS
(Academic Year: 2020-2021 Sem: VII)

Project Group No.: A - 17

Project Title: Supply Chain Traceability for Organic Jaggery

S r. N o.	Roll No.	Name of the Student	Mobile No.	Email id	T. E. Res ult
1	431001	Aadesh Ingle	7840920554	aadesh.17u354@viit.ac.in	9.00
2	431007	Ashish Gole	7756029478	ashish.17u688@viit.ac.in	9.18
3	431009	Ayush Bansal	8793328953	ayush.17u112@viit.ac.in	10.00
4	431028	Lokesh Budhlani	9503076989	lokesh.17u273@viit.ac.in	9.78
5	431066	Siddesh Vyavahare	8793815170	siddesh.17u373@viit.ac.in	9.78

Dr. Priya Shelke

Name & Signature Internal Guide

Dr. Pravin Futane,

Head of Department, I.T.

Mr. Gaurav Somwanshi

Name & Signature of External Guide

Mobile No.:

Email id :

Company Name:



Vishwakarma Institute of Information Technology, Pune-48
(An Autonomous Institute affiliated to Savitribai Phule Pune University)
Department of Information Technology

Final Year BTech Project - Abstract
(Academic Year: 2020-2021 Sem: VII)

Project Title: Supply Chain Traceability of Organic Jaggery			
Project Group No.: A-17		Guide Name: Dr. Priya Shelke	
GROUP MEMBERS:			
Roll No./ Seat No.	Name of Student	Project Area	Project Platform
431001	Aadesh Ingle	Blockchain	Multichain, AWS Cloud Platform, NodeJS
431007	Ashish Gole		
431009	Ayush Bansal		
431028	Lokesh Budhlani		
431066	Siddesh Vyavahare		

Nowadays, the customers are unaware of the events happening to the items in the supply chain which creates a lack of trust in their minds. So, the solution to this problem can be implemented efficiently using blockchain.

This project is intended to explore transparency in the supply chain of organic products like Jaggery by the usage of Blockchain technology. It allows for decentralized data storage and provides immutability. The decentralized data storage makes it impossible for an unauthorized actor to tamper the data.

Various actors involved in the supply chain are Manufacturers, Dispatchers, Wholesalers, Distributors, Retailers, Customers. The customers can query the product information by entering the unique code and know the status and events on the product in the supply chain. Various tools were being studied such as Ethereum, Enterprise Ethereum, Multichain, Hyperledger Fabric, Hyperledger Sawtooth to find the efficient one for this supply chain use case. For our use case, we are moving with Multichain as it reduces development time by 80%.

This project is expected to replace the ongoing methods employed by the Industry to trace products in the supply chain, thus leading to an immense decrease in cost and efforts for the producers and making the products cheaper for the customers. The blockchain could also be deployed on cloud services to increase availability, reliability.

This project can be used by any organic product manufacturing industry that wants to better track the products and explore transparency in the supply chain.

This project is sponsored by EmerTech Innovations.



Bansilal Ramnath Agarwal Charitable Trust's
Vishwakarma Institute of Information Technology, Pune-48
 (An Autonomous Institute affiliated to Savitribai Phule Pune University)
Department of Information Technology

Weekly Planning Sheet

Academic Year: 2020-2021

Sem: VII

Week No.	Activity Planned	Activity Completed Status	Student Signature	Guide Signature
Week 1	Registration of Group and learning Blockchain	Completed		
Week 2	Allocation of Guide and Project Topic Submission	Completed		
Week 3	Submission of Abstract to Project Guide and Project Coordinator in the Prescribed Format	Completed		
Week 4	Project Review 0 Creation of SRS	Completed		
Week 5	Study of Supply Chain and identify process attributes	Completed		
Week 6	1. Creating Front End for the application 2. Learning Multichain 3. Setting up network on AWS	Completed		
Week 7	1. Learning and creating APIs 2. Project Review 1	Completed		
Week 8	Connected Front-End to NodeJS server using AJAX calls	Completed		
Week 9	Connected NodeJS to Multichain using JSON-RPC API Login and Register Functionality Done	Completed		
Week 10	Session Management Done	Completed		
Week 11	1. Handling corner cases and other invalid inputs 2. Migrated to the cloud and thorough	Completed		



Bansilal Ramnath Agarwal Charitable Trust's
Vishwakarma Institute of Information Technology, Pune-48
(An Autonomous Institute affiliated to Savitribai Phule Pune University)
Department of Information Technology

	testing done			
Week 12	Documentation and Paper Writing	Completed		

Project Coordinator

Internal Guide

****Use of Project Management tool is recommended for maintain the log of daily activities as well.**



Project Log Book for Actual work done

Week No.	Date of Meeting	Activity Completed Status	Plan for the next week	Remarks by the Guide	Sign of students	Guide Signature
1.	28/07/2020	1. Formation of Groups 2. Learning Blockchain	Learning Ethereum and Solidity			
2.	10/08/2020	Meeting with Mrs. Rucha Trimbake	Learning Hyperledger Preparing Project Abstract			
3.	18/08/2020	Meeting with Mr. Gaurav Somwanshi	Learning Multichain and Finalizing topic			
4.	19/08/2020	1. Review Meet 0 2. Finalizing topic	Studying Supply Chain for Organic Jaggery Preparing SRS			
4.	25/08/2020	1. Preparation of SRS	Learning Cloud Finalizing process attributes			
5.	02/09/2020	1. Finalizing Process Attributes	Learning Cloud Creating Use Case Specification			
5.	05/09/2020	1. Finalizing Use Case Specification	Learning Multichain			
5.	10/09/2020	1. Setting up a Multichain network on AWS Cloud Services	Learning Front End Technologies Completing SRS			
6	17/09/2020	1. Distributing Tasks for Front End 2. Completion of SRS	Monthly meet about the project status			
6.	20/09/2020	1. Preparation of Front End	Learning APIs and JavaScript			



		2. Monthly Internal Review Meet				
7.	27/09/2020	1. Executing basic commands on Multichain	Learning APIs and NodeJS Completion of Project Booklet			
7.	04/10/2020	Reviewing Project Booklet and Presentation	Integrating Front End and Backend			
8.	11/10/2020	Connected Front-End and NodeJS using AJAX Calls	Learning JSON-RPC APIs connecting NodeJS and Multichain			
9.	18/10/2020	Connected NodeJS and Multichain	Learning MongoDB for storing user data			
9.	22/10/2020	Login and Signup functionality added	Learning Mongoose for session management			
10.	28/10/2020	Session Management done	Finding corner cases for all functions			
11.	05/11/2020	Handling corner cases and other invalid inputs	Setting up whole Network on AWS alongside MongoDB			
11.	10/11/2020	Migrated to the cloud and thorough testing done	Documentation for Final Submission for Project			
12.	12/11/2020	Documentation started and Meeting with Project Guide				

Project Coordinator

Internal Guide



Bansilal Ramnath Agarwal Charitable Trust's

Vishwakarma Institute of Information Technology, Pune-48
(An Autonomous Institute affiliated to Savitribai Phule Pune University)
Department of Information Technology

**** At least 1 meeting must be conducted with the guide in every week.
Use of Project Management tool is recommended for maintain the log of
daily activities as well. The regular communication with the Guide is
expected through mails/ WhatsApp groups.**



Bansilal Ramnath Agarwal Charitable Trust's
Vishwakarma Institute of Information Technology, Pune-48
(An Autonomous Institute affiliated to Savitribai Phule Pune University)
Department of Information Technology

Final Year BTech Project - Title Finalization review report

(Academic Year: 2020-2021 Sem: VII)

Project Title: Supply Chain Traceability of Organic Jaggery			
Project Group No.: A-17		Guide Name: Dr. Priya Shelke	
GROUP MEMBERS:			
Roll No./ Seat No.	Name of Student	Project Area	Project Platform
431001	Aadesh Ingle	Blockchain	Multichain, AWS Cloud Platform and NodeJS.
431007	Ashish Gole		
431009	Ayush Bansal		
431028	Lokesh Budhlani		
431066	Siddesh Vyavahare		
Project Category: 1. Industry Sponsored 2. Industry Mentored 3. Research based			
Industry Details: 1. Name of the Company: EmerTech Innovations 2. Website: https://emertech.io/ 3. Name of the mentor: Mr. Gaurav Somwanshi 4. E-mail Id of the mentor: 5. Mobile number of the mentor:			
Is the project title finalized: Y/N Suggestions for title:			
Is the project scope appropriate? Y/N Suggestions for Scope:			
Is the project abstract finalized: Y/N Suggestions for abstract:			
Any other Suggestions/ Remark:			
Name and Sign of Reviewer1: Name and Sign of Reviewer2: Name and Sign of Reviewer3:			



Bansilal Ramnath Agarwal Charitable Trust's
Vishwakarma Institute of Information Technology, Pune-48
(An Autonomous Institute affiliated to Savitribai Phule Pune University)
Department of Information Technology

Final Year BTech Project – REVIEW-I report

(Academic Year: 2020-2021 Sem: VII)

Group Id:		A-17		Date:
Project Title: Supply Chain Traceability for Organic Jaggery				
Sr. No.	Roll No.	Student Name	Contact Details	Internal / External Guide Details
1	431001	Aadesh Ingle	7840920554	Guide Name: Dr. Priya Shelke
2	431007	Ashish Gole	7756029478	Mentor Name, email & Mobile No. Mr. Gaurav Somwanshi
3	431009	Ayush Bansal	8793328953	
4	431028	Lokesh Budhlani	9503076989	
5	431066	Siddesh Vyavahare	8793815170	

REVIEW – I CHECKLIST : LITERATURE REVIEW AND DESIGN

50 Marks

PROJECT STATEMENT	
1. Is the statement short and concise (10-20 words maximum)?	Y / N / NA / NC*
2. Does the statement gives clear indication about what your project will accomplish?	Y / N / NA / NC*
3. Can a person who is not familiar with the project understand scope of the project by reading the Project Problem Statement?	Y / N / NA / NC*
REQUIREMENT: SCOPE AND OBJECTIVES	
Does the Scope and Objectives establish the "context" for the proposed project by referencing to the following elements:	
a. Are all aspects of the requirements document (i.e., Functional Spec.) addressed in the design?	Y / N / NA / NC*
b. Is the architecture / block diagram well defined and understood?	Y / N / NA / NC*
c. The project's objective of study (what product, process, resource etc.) is being addressed?	Y / N / NA / NC*
d. The project's purpose: is the purpose of project addressed properly (why it's being pursued: to evaluate, reduce, increase, etc.)?	Y / N / NA / NC*
e. The project's viewpoint: Is the project's viewpoint is understood? (Who is the project's end user)?	Y / N / NA / NC*
f. Is the project goal statement is in alignment with the sponsoring organization's business goals and mission?	Y / N / NA / NC*
ANALYSIS	
1. Is information domain analysis complete, consistent and accurate?	Y / N / NA / NC*
2. Is problem statement categorized in identified area and targeted towards specific area therein?	Y / N / NA / NC*



3. Are external and internal interfaces properly defined?	Y / N / NA / NC*
4. Does the Use Case Model properly reflects the actors and their roles and responsibilities?	Y / N / NA / NC*
5. Are all requirements traceable to system level?	Y / N / NA / NC*
6. Is similar type of methodology / model is used for existing work?	Y / N / NA / NC*
7. Are requirements consistent with schedule, resources and budget?	Y / N / NA / NC*

DESIGN

1. Are requirements reflected in the system architecture?	Y / N / NA / NC*
2. Does the design support both project (product) and project goals?	Y / N / NA / NC*
3. Does the design address all the issues from the requirements?	Y / N / NA / NC*
4. Is effective modularity achieved and modules are functionally independent?	Y / N / NA / NC*
5. Are structural diagrams (Class, Object, etc.) well defined and understood?	Y / N / NA / NC*
6. Are all class associations clearly defined and understood? (Is it clear which classes provide which services)?	Y / N / NA / NC*
7. Are the classes in the class diagram clear? (What they represent in the architecture design document?)	Y / N / NA / NC*
8. Is inheritance appropriately used?	Y / N / NA / NC*
9. Are the multiplicities in the use case diagram depicted in the class diagram?	Y / N / NA / NC*
10. Are behavioral diagrams (use case, sequence, activity, etc.) well defined and understood?	Y / N / NA / NC*
11. Is aggregation/containment (if used) clearly defined and understood?	Y / N / NA / NC*
12. Does each case have clearly defined actors and input/output?	Y / N / NA / NC*
13. Is all concurrent processing (if used) clearly understood and reflected in the sequence diagrams?	Y / N / NA / NC*
14. Are all objects used in sequence diagram?	Y / N / NA / NC*
15. Does the sequence diagram match class diagram?	Y / N / NA / NC*
16. Are the symbols used in all diagrams correspond to UML standards?	Y / N / NA / NC*



Bansilal Ramnath Agarwal Charitable Trust's
Vishwakarma Institute of Information Technology, Pune-48
 (An Autonomous Institute affiliated to Savitribai Phule Pune University)
Department of Information Technology

STUDENT PERFORMANCE EVALUATION

Students' Contribution and Performance					
Particulars	Marks(50M)				
	Group Members				
	1	2	3	4	5
System Architecture & Literature Survey	Y/N	Y/N	Y/N	Y/N	Y/N
1. Background and Topic (5 M)					
2. Project Scope and Objectives (5M)					
3. Literature Survey (5 M)					
4. Project Design (10 M)					
5. Methodology /Algorithms and Project Features (5 M)					
6. Project Planning (3 M)					
7. Basic Implementation (5 M)					
8. Presentation Skills (5 M)					
9. Question and Answer (5 M)					
10. Summarization of ultimate findings of the Project (2M)					
Total(50M)					
Comments (if any)					

To be filled by internal guide & reviewer(s) only.

* Whether the presentation / evaluation is as per the schedule. : YES / NO (If NO mention the reasons for the same.)

Review – I: Deliverables

- | | |
|--|--|
| <ul style="list-style-type: none"> • Problem Statement / Title • Abstract • Introduction • Literature Survey (comparison with existing system) • Methodology • Design / algorithms / techniques used | <ul style="list-style-type: none"> • Modules Split-up • Proposed System • Software Tools / Technologies to be used • Proposed Outcomes • Project Plan 2.0 |
|--|--|

Name & Signature of evaluation committee -

Name of Reviewer 1

Name of Reviewer 2

Name of Internal Guide

**Final Year BTech Project – REVIEW-II report****(Academic Year: 2020-2021****Sem: VII)**

Group Id:		A-17		Date: 25/11/2020	
Project Title: Supply Chain Traceability of Organic Jaggery					
Sr. No.	Roll No.	Student Name	Contact Details	Internal / External Guide Details	
1	431001	Aadesh Ingle	7840920554	Guide Name: Dr. Priya Shelke	
2	431007	Ashish Gole	7756029478	Mentor Name, email & Mobile No.	
3	431009	Ayush Bansal	8793328953		
4	431028	Lokesh Budhlani	9503076989		
5	431066	Siddesh Vyavahare	8793815170		

REVIEW – II : IMPLEMENTATION AND TESTING**50 Marks**

IMPLEMENTATION (SOURCE CODE REVIEW CHECKLIST)	
a. Structure	
1. Does the code completely and correctly implement the design?	Y / N / NA / NC*
2. Does the code comply with the Coding Standards?	Y / N / NA / NC*
3. Is the code well-structured, consistent in style, and consistently formatted?	Y / N / NA / NC*
4. Does the implementation match the design?	Y / N / NA / NC*
5. Are all functions in the design coded?	Y / N / NA / NC*
b. Documentation	
1. Is the code clearly and adequately documented?	Y / N / NA / NC*
2. Are all comments consistent with the code?	Y / N / NA / NC*
TESTING	
1. Is every feature tested?	Y / N / NA / NC*
2. Are all functions, user screens and navigation tested? (e.g. module, object, integration, usability, system)	Y / N / NA / NC*
3. Are test cases designed? (manual and automated)	Y / N / NA / NC*
4. Is testing tool used?	Y / N / NA / NC*
5. Is result analysis done properly and appropriate conclusion drawn?	Y / N / NA / NC*
6. Implementation status (code completion in percentage)	
7. Final thesis status (in percentage)	



Bansilal Ramnath Agarwal Charitable Trust's
Vishwakarma Institute of Information Technology, Pune-48
 (An Autonomous Institute affiliated to Savitribai Phule Pune University)
Department of Information Technology

FILL IN BRIEF

Final results are known or not?

Quality of Presentation :

List the chapter numbers of final report:

Project Completion Date :

Final Report Submission Date :

General

Is the LOG BOOK of project up-to-date and signed?

STUDENT PERFORMANCE EVALUATION

Students' Contribution and Performance					
Particulars	Marks(50M) Group Members				
	1	2	3	4	5
	Y/N	Y/N	Y/N	Y/N	Y/N
1. Architecture / System Design - (if any modification)					
2. 100 % Implementation (10M)					
3. Testing, Results and Performance Evaluation (10M)					
4. Presentation skills (5M)					
5. Question and Answer (5M)					
6. Summarize the methodologies / Algorithms implemented (5M)					
7. Final Project Report (10M)					
8. Publications/ Industry certificate (5M)					
Total(50M)					
Comments (if any)					

To be filled by internal guide & reviewer(s) only.

* Whether the presentation / evaluation is as per the schedule.: YES / NO (If NO mention the reasons for the same.)



Bansilal Ramnath Agarwal Charitable Trust's
Vishwakarma Institute of Information Technology, Pune-48
(An Autonomous Institute affiliated to Savitribai Phule Pune University)
Department of Information Technology

Review – II: Deliverables

- Detailed Design
- 100% of code implementation
- Experimental Results
- Performance Evaluation
- Test Cases
- Result Analysis and Conclusion
- Final Thesis

Name & Signature of evaluation committee -

Name of Reviewer 1

Name of Reviewer 2

Name of Internal Guide



Bansilal Ramnath Agarwal Charitable Trust's
Vishwakarma Institute of Information Technology, Pune-48
(An Autonomous Institute affiliated to Savitribai Phule Pune University)
Department of Information Technology

Summary of Project Work Evaluation Sheets

S r. N o.	Roll No. / GR No.	Name of the Student	I	I I	Remarks	Tota l	Student Signatur e
1	17u112	Ayush Bansal					
2	17u273	Lokesh Budhlani					
3	17u354	Aadesh Ingle					
4	17u373	Siddesh Vyavahare					
5	17u688	Ashish Gole					

Overall Remarks or Comments (if any)

Name of Reviewer 1

Name of Reviewer 2

Name of Internal Guide



Bansilal Ramnath Agarwal Charitable Trust's
Vishwakarma Institute of Information Technology, Pune-48
(An Autonomous Institute affiliated to Savitribai Phule Pune University)
Department of Information Technology

Participation in Project Competition/ Event

(Academic Year: 2020-2021

Sem: VII)

Sr. No.	Name & Place of Project Competition / Exhibition	Date	Certificate / Prizes won (if any)

Paper Publication / Presentation

Sr. No.	Name of the organizing society	Date	Certificate / Prizes Won (if any)
1.	Published the paper titled “Food supply chains using Blockchain” in Vishwacon 2020	23/11/2020	

*** Photocopy of the certificate must be attached to this booklet.**

Project Coordinator

Internal Guide



Bansilal Ramnath Agarwal Charitable Trust's
Vishwakarma Institute of Information Technology, Pune-48
(An Autonomous Institute affiliated to Savitribai Phule Pune University)
Department of Information Technology

Exam Evaluation Guidelines

Along with Internal Examiner, the External Examiner should see their Partial or Final project reports, project log book and the presentation of each group along with live project demonstration (applicable in second semester).

It is expected that the examiners should evaluate the students rigorously. The examiners are supposed to evaluate each student / group based on some or all of the following points. Also, the evaluation of the examiners must be fair enough so that the student gets appropriate credit/ marks for his/her efforts. Marks breakup is enclosed in the attached excel sheet

The following are the guidelines for the presentation and should be shared with the students.

1. Purpose or Significance or Motivation of Study / topic identified
2. Objectives of Problem Statement
3. Technical relevance and originality of problem
4. Literature reviewed followed by sufficient requirements analysis
5. Design and coding effort along with best practices followed
6. Analysis, interpretation, implementation and validity of results
7. Extent of technical knowledge and coding skill gained
8. Use of project management techniques and maintaining project log Book.
9. Use of modern CASE tools and techniques in development (if required for the problem)
10. Team-work and collaboration
11. Use of professional ethics and social relevance
12. Presentation Skills
13. Answers to questions - analysis, depth of understanding of problem/ conclusions/ inference
14. Project Report / Thesis Contents Quality



Bansilal Ramnath Agarwal Charitable Trust's
Vishwakarma Institute of Information Technology, Pune-48
(An Autonomous Institute affiliated to Savitribai Phule Pune University)
Department of Information Technology

PROJECT REPORT FORMAT

Instructions:

It is important that the procedures listed below be carefully followed.

1. Prepare 2 + No. of project members' copies of your manuscript (1-CD for college).
2. Limit your project report to preferably 60-70 manuscript pages.
3. The footer should be included as "College Name - INFORMATION TECHNOLOGY Academic Year – 2020-21, while the header should contain" NAME OF PROJECT". Both header and footer should be TIMES NEW ROMAN 10pt and centrally aligned.
4. Print the manuscript using letter quality computer printing. The main part of manuscript should be TIMES ROMAN 12pt and justified. Use 1.5 line spacing and justify aligned
5. Use paper size 8.5" X 11" or A-4(210X197mm). Please follow following margins

Margin Location	Paper A4 (210X197mm)
Top	25.4 mm
Left	37 mm
Bottom	32 mm
Right	25.4 mm

6. All paragraphs will be 1.5 line spaced and a double space between each paragraph. Each paragraph will begin with a five–space indentation.
7. Chapter titles should be bold with 14pt typed in all capital letters and should be aligned at the center of the page. Section heading should be aligned at the left with 12pt and bold and capitalized. Section subheading should be aligned at the left with title case (the first letter of each word is to be capitalized). Leave two spaces between section headings and 1 space between two section subheadings.
8. Illustrations (Charts, drawings photographs, figures) are to be in the text. Use only illustrations really pertinent to the text. Illustrations must be sharp, clear, black and white. Illustrations downloaded from internet are not acceptable.
 - a. Illustrations should not be more than two per page. One could be ideal
 - b. Figure No. and title at bottom with 12pt.
 - c. Legends below the title in 10pt.
 - d. Proper margin in all sides.
 - e. Illustrations as far as possible should not be Xeroxed (photo copy)
9. Photographs if any should be of glossy prints.
10. Please use SI system for units. If student would like to add the equivalent in inch-pound (IP) units, they must be stated in parentheses after the SI units. In case the final result comes out in any other units (say due to empirical formula etc.) convert the unit to SI unit.
11. Please number the pages on the front side, centrally below the footer.
12. References should be either in order as they appear in the paper or in alphabetical order by last name of first author.
13. Symbols and notations if any should be included in nomenclature section only.
14. Following will be the order of the report.
 - a. Cover page and front page as per specimen on separate sheet.
 - b. Certificate from institute as per specimen on separate sheet.



Department of Information Technology

- c. Certificate from Industry on separate sheet (as case may be).
 - d. Acknowledgement.
 - e. List of figures.
 - f. List of Tables
 - g. Nomenclature
 - h. Contents
 - i. Abstract (A brief abstract of the report not more than 150 words. The heading of abstract i.e. word "Abstract" should be bold, times roman 12 pt and should be typed at the center. The contents of abstract should be typed on new line without space between heading and contents.
 - j. Chapter1 : Introduction
 - k. Other chapters starting on new page.
 - l. References (In IEEE format)
 - m. Appendices if any. Appendix should contain routine calculation, standard data, derivation and relevant cyber laws.
15. All chapters, section heading and subheadings should be numbered. For chapters use numbers 1, 2..... And for subheadings 1.1, 1.2 etc. and section subheadings 2.1.1, 2.2.2, 2.3.1 etc.
16. References should be given in the body of the text and well spread. No verbatim copy or excessive text from only one or two reference should be used. If figures and tables are taken from any reference then indicate its source. Please follow following procedure for references.

Reference books

Collier. G. j. and Thome J. R., Convective boiling and condensation, 3rded, Oxford University Press, UK. 1996, pp. 110- 112

Papers from Journal or transactions

JUNG D. S. and Radermacher R. "Transport properties and surface tension of pure and mixed refrigerants", Ashare Trans, 1991, 97(1), p. 90-98

Papers from conference proceedings

Coulbourne D. R and Ritter T. J. "Quantitative assessment of flammable refrigerants in room air conditioners", proceedings of the sixteenth International compressor Engineering Conference and Ninth International Refrigeration and Air conditioning Conference, Putdu University, West Lafayette Indiana, USA, 2002

Reports Handbooks etc.

United Nations Environmental Programme, Report of the refrigeration, Air Conditioning and heat pumps, Technical option Committee, 2002 Assessment, 2002

ASHRAE handbook : Refrigeration, 1994 (chapter44)

Patent

Patent no. Country (In parenthesis), date of application, title, year. If taken from "Abstract" give cross reference as CF, CA.....

Internet

[WWW.\(Site\)](http://WWW.(Site))

Bansilal Ramnath Agarwal Charitable Trust's
Vishwakarma Institute of Information Technology, Pune-48
(An Autonomous Institute affiliated to Savitribai Phule Pune University)
Department of Information Technology

**EMERTECH**
INNOVATIONS

CIN U72900MH2019PTC320411
Emertech Innovations Private Limited
Room No 1, TCS Shed, SINE, IIT Bombay
Powai, Mumbai – 400076, Maharashtra, India
Email: info@emertech.io
Director Contacts: +91 9890604028 / +91 9561707654

Project Sponsorship Allocation letter

To,

The Head-IT, VIIT

We confirm that the project "Supply Chain Traceability for Organic Jaggery" is allocated to the following team (Ayush Bansal 17u112, Lokesh Budhlani 17u273, Aadesh Ingle 17u354, Siddesh Vyavhare 17u373, Ashish Gole 17u688). We hope that your team will sincerely complete it in the duration from July 2020 to December 2020 under the guidance of the Mr. Gaurav Somwanshi who has been allocated to you from the company.

Thank you for your interest in working with us. Looking forward to an amazing association.

For and behalf of,
Emertech Innovations Private Limited


EMERTECH INNOVATIONS PRIVATE LIMITED


Mr. Gaurav Somwanshi
Director

Authorised Signatory

Bansilal Ramnath Agarwal Charitable Trust's
Vishwakarma Institute of Information Technology, Pune-48
(An Autonomous Institute affiliated to Savitribai Phule Pune University)
Department of Information Technology

CIN U72900MH2019PTC320411

 **EMERTECH**
INNOVATIONS

Emertech Innovations Private Limited
Room No 1, TCS Shed, SINE, IIT Bombay
Powai, Mumbai - 400076, Maharashtra, India
Email: info@emertech.io
Director Contacts: +91 9890604028 / +91 9561707654

Project Sponsorship Allocation letter

To,

The Head-IT, VIIT

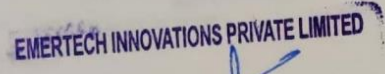
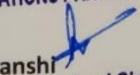
We EmerTech Innovations Pvt Ltd. hereby certify that the following students of BTech-IT, VIIT have completed their final year BTech project titled: "Supply Chain Traceability for Organic Jaggery" at Vishwakarma Institute Of Information Technology, Kondhwa, Pune-48 in the academic year 2020-21.

Team members' names with GR numbers

- Ayush Bansal 17u112
- Lokesh Budhlani 17u273
- Aadesh Ingle 17u354
- Siddesh Vyavahare 17u373
- Ashish Gole 17u688

We thank them for the contribution and wish them good luck for the future.

For and behalf of,
Emertech Innovations Private Limited


Mr. Gaurav Somwanshi
Director 
Authorised Signatory

CIN U72900MH2019PTC320411