Mini-Project -2B Web based on ML (ITM 601)

LOGBOOK

SMS Spam Detector

T. E. Information Technology

By

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Mentor:

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Department of Information Technology
St. Francis Institute of Technology
(Engineering College)

University of Mumbai
2021-2022

Institute Vision, Mission, Quality Policy

Institute Vision

To be a chrysalis where bright youngsters are transformed into technological entrepreneurs and innovative leaders of tomorrow's world, consistent with the Franciscan vision of integrity, peace and love.

Institute Mission

To churn highly competent engineering graduates with a commitment to result oriented work, a perennial zest for learning, a quest for excellence, an open mind and the universal values of honesty, dignity and mutual care.

Institute Quality Policy

To be the most preferred Institute of Engineering and Technology equipped with state-of-art facilities, to develop technically qualified techno-entrepreneurial class of value based global industry leaders, imparting comprehensive technical education, through highly competent and dedicated staff, ensuring continual improvement of QMS processes, meeting ISO 9001-2015 statutory and regulatory requirements.

Department Vision, Mission and Quality Policy

Department Vision

To create a conducive instrument for transforming the enrolled potential freshers into competent Information Technology professional or entrepreneur with integrity and ethical value

Department Mission

1. To become unit of excellence in teaching, training, research, innovative applications and extension work in IT in co-operation with various departments

2. To make knowledge and expertise accessible with various dissemination strategies, including networking with research unit, colleges, government and industry along with the motivation for self-learning

3. To integrate teaching, research and practice along with higher education for generation and application of knowledge in line with emerging needs of industry, technical quality with market driven professional pursuits, programs, courses, collaboration.

4. To develop entrepreneur skills along with ethical and professional values among students

Department Program Educational Objectives (PEOs)

1. To provide an environment and to make knowledge & expertise accessible for students to work in multi- disciplinary projects, to solve the real-life problems with the help of modern tools and techniques and to lead towards a successful professional career.

2. To develop effective soft skills, inculcate team building capabilities such as leadership skills, managerial skills, and entrepreneurial skills and simultaneously nurture professional and ethical attitude in broad social context for sustainable development through lifelong learning.

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Department Program Specific Outcomes (PSOs)

PSO1: Students will be able to acquire the basic knowledge of analysis and design, based on the comprehensive principles of Software Engineering, Project Management, Software Testing and Quality Assurance.

PSO2: Students will be able to apply research-based approach using innovative tools and techniques in the field of Communication & Networks, Computer graphics & Image Processing and Information Security & Data Management.

PSO3: Students will be able to use the knowledge of Information Technology to develop end to end solutions in the field of SCAM (Social, Cloud, Analytics and Mobile).

PSO4: Students will be able to fuel entrepreneurship or to serve niche employment while portraying competencies like teamwork, efficient soft skills and a zeal for lifelong learning in order to contribute to society with moral and ethical values.

Program Objectives (POs)

1. Engineering knowledge (PO1)
Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization for the solution of complex engineering problems.

2. Problem Analysis (PO2)
Identify, formulate, research literature, and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

3. Design/development of solutions (PO3)
Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for public health and safety, and cultural, societal, and environmental considerations.

4. Conduct investigations of complex problems (PO4)
Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

5. Modern tool usage (PO5)
Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modelling to complex engineering activities, with an understanding of the limitations.

6. The engineer and society (PO6)
Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

7. Environment and sustainability (PO7)
Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

8. Ethics (PO8)
Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

9. Individual and team work (PO9)

Function effectively as an individual, and as a member or leader in diverse teams, and in multi-disciplinary settings.

10. Communication (PO10)

Communicate effectively on complex engineering activities with the engineering community and with t h e society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

11. Project management and finance (PO11)

Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

12. Life- long learning (PO12)

Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Graduates will be able to secure employment or be an entrepreneur with ability to apply professional knowledge with ethical responsibility.

Mini-project Objectives

1	To acquaint with the process of identifying the needs and converting it into the problem.
2	To familiarize the process of solving the problem in a group.
3	To acquaint with the process of applying basic engineering fundamentals to attempt solutions to the problems.
4	To inculcate the process of self-learning and research.

Mini-project Outcomes

ITM601.1	Students shall be able to **identify** real-world problems.
ITM601.2	Students shall be able to **apply** basic engineering knowledge to find a feasible solution for the problem identified.
ITM601.3	Students shall be able to **develop** interpersonal as well as written and oral communication skills.
ITM601.4	Students shall be able to **infer** from available results through theoretical/ experimental/simulations.
ITM601.5	Students shall be able to **analyse** the impact of solutions in societal and environmental context for sustainable development.
ITM601.6	Students shall be able to **demonstrate** project management principles during project work.

Mapping Course Outcomes (COs) to Program Outcomes (POs)

Lab Outcomes	Program Outcomes											
	PO 1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
ITM601.1 Students shall be able to **identify** real-world problems.		**3**										
ITM601.2 Students shall be able to **apply** basic engineering knowledge to find a feasible solution for the problem identified.	**3**											
ITM601.3 Students shall be able to **develop** interpersonal as well as written and oral communication skills.			**3**									
ITM601.4 Students shall be able to **infer** from available results through theoretical/ experimental/simulations.			**3**									
ITM601.5 Students shall be able to **analyse** the impact of solutions in societal and environmental context for sustainable development.							3					
ITM601.6 Students shall be able to **demonstrate** project management principles during project work.											**3**	

Examination Scheme

Course Code	**Course Name**	Examination Scheme						
		Theory Marks				Term Work	Pract. /Oral	Total
		Internal assessment			End Sem. Exam			
		Test1	Test 2	Avg.				

ITM601	Mini Project – 2B Web Based on ML	--	--	- -	- -	25	2 5	50

Term Work Assessment

1. The review/ progress monitoring committee shall be constituted by head of departments of each institute. The progress of mini project to be evaluated on continuous basis, minimum two reviews in each semester.
2. In continuous assessment focus shall also be on each individual student, assessment based on individual's contribution in group activity, their understanding and response to questions.
3. Distribution of Term work marks for both semesters shall be as below:
   - Marks awarded by guide/supervisor based on log book: 10
   - Marks awarded by review committee: 10
   - Quality of Project report: 05

Dr. Minal Lopes
Teachers in charge

Dr. Joanne Gomes
HoD - INFT

Mini-Project Log

Sr. No.	Week Number (From Date – To Date)	Work Planned	Work Completed
1	1 (10/01/22 to 14/01/22)	Introduction to mini project on ML (ITM601), Group formation, Sharing project proposal, approval presentation and logbook formats	Group formed- Ashish Yadav Raj Jaiswal Allan Rodrigues Jonathan Sardinha
2	2 (17/01/22 to 21/01/22)	Discussion of project topic with mentor, logbook checking	Discussed possible topics with mentor and finalized the topic- SMS Spam Detector
3	3 (24/01/22 to 28/01/22)	Mini project approval presentation, synopsis submission, logbook checking,	Completed Proposal presentation and noted changes required.
4	4 (31/01/22 to 04/02/22)	Guest lecture.Data preparation, Data aggregation, Logbook checking	Attended guest lecture on Data Science. Started updating the logbook.
5	5 (07/02/22 to 11/02/22)	Dataset Finalization.	Researched spam datasets online and finalized one which best suits our project.
6	6 (14/02/22 to 18/02/22)	Working on a Dataset.	Performed Data Cleaning, EDA and Text Processing on dataset
7	7 (21/02/22 to 25/02/22)	Read Research Papers	Read , summarized and classified information regarding different algorithms by reading 4 research papers.
8	8 (28/02/22 to 04/03/22)	Mid Sem Evaluation	Completed Mid Sem Presentation, demonstrated project progress and noted changes required.
9	9 (07/03/22 to 11/03/22)	Training, Evaluation, Logbook Checking	Divided the dataset into training and testing and started training the model.
10	10 (14/03/22 to 18/03/22)	Parameter tuning and Inference, Logbook checking	Implemented the algorithm and tested model prediction
11	11 (21/03/22 to 25/03/22)	Performance metrics, website building	Calculated performance metrics of the model and created a website to deploy the model.
12	12 (28/03/22 to 01/04/22)	Model deployment (Integration of algorithm with website)	Integrated model to the website

13	13 (04/04/22 to 08/04/22)	Final internal evaluation, Report and Logbook submission, uploading mini project documents on Google classroom	Completed end sem evaluation, showed complete project demonstration
14	14 (11/04/22 to 12/04/22)	Final Submission	Submitted Report, presentation and logbook.

Remarks by Mentor:

Name and signature of Student:
Date:

Name and signature of Student:
Date:

Name and signature of Student:
Date:

Name and signature of Student:
Date:

Name and Signature of Mentor:

Date: