



Gyanmanjari
Innovative University

Course Syllabus
Gyanmanjari Institute of Technology
Semester-4 (B.Tech)

Subject: Creative Design Hub Project-II – BETXX14361

Type of course: Professional Core

Prerequisite: Completion of Creative Design Hub Project-I with a defined project problem, initial literature review, project methodology, and preliminary design or prototype. Students should possess basic domain knowledge, technical skills, analytical ability, and familiarity with project planning and documentation.

Rationale:

Creative Design Hub Project-II extends the work initiated in Creative Design Hub Project-I by guiding students from problem definition and preliminary development toward complete implementation, testing, validation, optimization, and professional presentation. The course emphasizes deeper technical execution, evidence-based evaluation, iterative improvement, research integrity, teamwork, and project management. It enables students to integrate domain knowledge and practical skills to develop a reliable solution or prototype, critically evaluate outcomes, document the complete project life cycle, and defend the work before an academic or professional audience.

Teaching and Examination Scheme:

Teaching Scheme			Credits	Examination Marks				Total Marks
CI	T	P	C	Theory Marks		Practical Marks		
				ESE	MSE	V	P	
0	0	4	2	0	0	80	20	100

Legends: CI-Classroom Instructions; T – Tutorial; P - Practical; C – Credit; ESE - End Semester Examination; MSE- Mid Semester Examination; V – Viva;



Course Content:

Sr. No	Course Content
1	Project Continuation, Problem Refinement, and Advanced Planning: Review of work completed in Creative Design Hub Project-I. Refinement of the problem statement, objectives, scope, and expected outcomes based on earlier findings and feedback. Detailed requirement and stakeholder analysis. Feasibility review covering technical, operational, economic, and resource considerations. Development of an updated project plan with milestones, responsibilities, risks, dependencies, and deliverables. Selection of suitable tools, platforms, technologies, datasets, or experimental resources. Preparation of system architecture, design specifications, workflow, and implementation strategy. Use of project tracking, version control, and systematic documentation practices.
2	Advanced Research, Solution Design, and Prototype Development: Updating and strengthening the literature review with recent and relevant academic, technical, and industry sources. Comparative analysis of existing approaches and confirmation of the identified research or design gap. Justification of the selected methodology, techniques, algorithms, frameworks, or design approach. Detailed solution design, module planning, interface or workflow design, data or experimental design, and prototype refinement. Iterative development using suitable coding, design, simulation, analytical, or experimental tools. Consideration of ethical, privacy, safety, accessibility, sustainability, and domain-specific constraints wherever applicable.
3	Implementation, Testing, Validation, and Optimization: Full-scale development and integration of the proposed project solution. Execution of coding, prototyping, simulation, experimentation, or data processing as applicable to the project domain. Preparation of test plans, test cases, and evaluation criteria. Functional, performance, usability, accuracy, reliability, or comparative testing using appropriate metrics. Collection and interpretation of validation results. Identification of errors, limitations, bottlenecks, and failure cases. Debugging, refinement, and optimization of the solution through iterative testing. Incorporating mentor, peer, user, or stakeholder feedback and maintaining evidence of improvements and project progress.
4	Final Evaluation, Documentation, Demonstration, and Project Defense: Critical evaluation of final results against project objectives, requirements, baseline methods, or expected outcomes. Discussion of findings, limitations, practical implications, and future enhancement opportunities. Preparation of a complete professional project report including abstract, introduction, literature review, methodology, design, implementation, testing, results, discussion, conclusion, references, and supporting documentation. Preparation of technical documentation, user guide, repository or deployment notes where applicable. Designing an effective final presentation and live demonstration. Communicating technical decisions clearly, responding to questions, defending results with evidence, and presenting recommendations for future development, deployment, or research.



Suggested Specification table with Marks (Theory): N/A

Distribution of Theory Marks (Revised Bloom's Taxonomy)						
Level	Remembrance (R)	Understanding (U)	Application (A)	Analyze (N)	Evaluate (E)	Create (C)
Weightage %	N/A	N/A	N/A	N/A	N/A	N/A

Course Outcome:

After learning the course, the students should be able to:	
CO1	Refine project requirements, design, and implementation plan.
CO2	Develop and integrate an advanced project solution or prototype.
CO3	Analyze, validate, and optimize project performance.
CO4	Evaluate and defend the completed project professionally.

Instructional Method:

The course delivery method will depend upon the requirement of content and the needs of students. The teacher, in addition to conventional teaching methods by black board, may also use any tools such as demonstration, role play, Quiz, brainstorming, MOOCs etc.

From the content 10% topics are suggested for flipped mode instruction.

Students will use supplementary resources such as online videos, NPTEL/SWAYAM videos, e-courses, Virtual Laboratory.

The internal evaluation will be done on the basis of Active Learning Assignment.

Practical/Viva examination will be conducted at the end of semester for evaluation of performance of students in the laboratory.

