

Hands-on Project

Objectives:

Define a project problem that is important to solve, develop and implement a proof-of-concept (POC) software application for the solution, based on the various software paradigms discussed in the classes.

Sample Hands-on Project Areas:

- Artificial Intelligence ([AI](#)), OpenAI
- E-Commerce
- Big Data
- Cybersecurity
- Cloud Computing—AWS, Azure, Cloud Foundry

The final project report should address at least the following points:

- Overview of the proposed hands-on project
- Rationale behind the proposed hands-on project
- Issues/difficulties encountered during the project development
- Solutions/analyses to the proposed hands-on project
- Un-resolved issues and future works, if any
- Source code for the hands-on project

Deliveries: (**Due dates** are listed on the class syllabus)

- 1-page project proposal
- Final project report (see the section below for details of formatting)
- Presentation/Demo (15-25 minutes oral presentation/demo)

The **1-page project proposal** should address at least the following points:

- Overview of the proposed hands-on project problem(s)
- Rationale behind the proposed hands-on project problem(s)

The **final project report** should contain the following sections (max 10 pages excluding the source code):

- **Title** of the proposed project—a maximum 9 word title
- **Abstract**—a maximum 250 word abstract to describe the proposed hands-on project
- **Introduction**—describes the rationale behind the proposed project and the content of the proposed project
- **Related project works**—describes any developed projects related to the proposed project
- **Solutions/Analyses**—details the solutions/analyses to the proposed project
- **Summary and future works**—summarizes the proposed project work as well as future works.
- **Source code**—developed and tested for the proposed project

Recommended final report formatting:

- IEEE: <https://www.ieee.org/conferences/publishing/templates.html>
- Formatting guideline from any conference/journal