**Senior Year Design Project**

**Rubric Based Assessment**

**Fall 2020-Spring 2021**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Name of Student/s** | **Roll Number/s** | **Sproj Title** | **Advisor** | **Co-Advisor/s** | **Evaluation Committee** |
| Usama Afzal | 21100266 | Development Of Portable Android Based Machine Vision Platform For Surface Inspection | Dr. Zubair Khalid |  | Dr. Momin Ayub Uppal |
|  |  |
|  |  |
|  |  |

**Project Proposal SProj-I:**

**PLO-Attainment Rubric:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Relevant PLO** | **Good (Above Average)**  **3** | **Satisfactory (Average)**  **2** | **Poor (Below Average)**  **1** |
| **PLO3**  **Design and Development of Solutions** | ☐ The project abstract is clearly written.  ☐ The project motivation is clearly written(Ch. 1.1).  ☐ The project problem statement is clearly stated (Ch. 1.2).  ☐ A high-level system block diagram is present to better visualize the project objectives (Ch. 1.3).  ☐ The project goal/s are clearly defined (Ch. 1.5).  ☐ The project objectives are clearly defined (Ch. 1.6).  ☐ The project outcomes are clearly defined (Ch. 1.7).  ☐ The project deliverables are clearly stated (Ch. 1.8). | ☐ The project abstract is somewhat clearly written.  ☐ The project motivation is somewhat clearly written(Ch. 1.1).  ☐ The project problem statement is somewhat clearly stated (Ch. 1.2).  ☐ A high-level system block diagram is present but it does not help in visualizing the project objectives (Ch. 1.3).  ☐ The project goal/s are loosely defined (Ch. 1.5).  ☐ The project objectives are loosely defined (Ch. 1.6).  ☐ The project outcomes are vaguely/looselydefined (Ch. 1.7).  ☐ The project deliverables are somewhat clearly stated (Ch. 1.8). | ☐ The project abstract is not clearly written.  ☐ The project motivation is not clearly writtenCh. 1.1).  ☐ The project problem statement is not clearly stated (Ch. 1.2).  ☐ A high-level system block diagram is not present to better visualize the project objectives (Ch. 1.3).  ☐ The project goal/s are not clearly defined (Ch. 1.5).  ☐ The project objectives are not clearly defined (Ch. 1.6).  ☐ The project outcomes are incomplete/absent(Ch. 1.7).  ☐ The project deliverables are not clearly stated (Ch. 1.8). |
| **PLO4**  **Investigation** | ☐ A comprehensive literature and market survey (if applicable) are well documented in the proposal (Ch. 2).  ☐ The bibliographical references are properly presented and cited according to defined IEEE style. | ☐ A basic literature and market survey (if applicable) are present in the proposal and there are some gaps (Ch. 2).  ☐ Some bibliographical references are missing/not properly presented and cited according to defined IEEE style. | ☐ A literature and market survey (if applicable) are not available in the proposal(Ch. 2).  ☐ Major bibliographical references are missing/not cited according to the defined IEEE style. |
| **PLO6**  **Engineer and Society** | ☐ The social benefits of the project are clearly stated (Ch. 1.4).  ☐ The relevance of the project idea in solving some technical problem in our society is clearly highlighted (Ch. 1.4). | ☐ The social benefits of the project are vaguely stated (Ch. 1.4).  ☐ The relevance of the project idea in solving some technical problem in our society is vaguelymentioned (Ch. 1.4). | ☐ The social benefits of the project are not present (Ch. 1.4).  ☐ The relevance of the project idea in solving some technical problem in our society is not present (Ch. 1.4). |
| **PLO8**  **Ethics** | ☐ The data contents taken from other works are properly cited (Ch. 1 & 2).  ☐ Figures and diagrams are adequately (re)produced by students where possible(Ch. 1 & 2). | ☐ Not all data contents taken from other works are cited (Ch. 1 & 2).  ☐ Some figures and diagrams are not correctly (re)produced by students (Ch. 1 & 2). | ☐ The data contents taken from other works are not cited (Ch. 1 & 2).  ☐ Figures and diagrams are copied from other sources and not at all (re)produced (Ch. 1 & 2). |
| **PLO10**  **Communication** | ☐ There are no grammatical or spelling mistakes in the proposal.  ☐ The quality of figures and charts/graphs is excellent with no captions missing and completely readable.  ☐The content organization is excellent with headings, sub-headings and bulleted items. | ☐ There are few grammatical or spelling mistakes in the proposal.  ☐ The quality of figures and charts/graphs is satisfactory with some captions missing or unreadable.  ☐The content organization is satisfactory with occasional issues in headings, sub-headings and bulleted items. | ☐ There are many grammatical or spelling mistakes in the proposal.  ☐ The quality of figures and charts/graphs is poor with missing captions and unreadable drawings.  ☐The content organization is poor with in-consistent or missing headings, sub-headings and bulleted items. |
| **PLO11**  **Project Management** | ☐Project proposed timeline is present (Ch. 1.9).  ☐Tasks distribution of work is present and well balanced (Ch. 1.9). | ☐Project proposed timeline is present but it is vague(Ch. 1.9).  ☐Tasks distribution of work is present and loosely balanced (Ch. 1.9). | ☐Project proposed timeline is not present (Ch. 1.9).  ☐Tasks distribution of work is not present (Ch. 1.9). |

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Signatures:**

Advisor: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Co-Advisor/s: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Project Report Sproj-I:**

**PLO-Attainment Rubric:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Relevant PLOs** | **Good (Above Average)**  **3** | **Satisfactory (Average)**  **2** | **Poor (Below Average)**  **1** |
| **PLO3**  **Design and Development of Solutions** | ☐ A detailed system block diagram is documented to highlight the final design implementation (Ch. 3.1).  ☐ Different design choices are properly documented and compared (Ch. 3.1).  ☐ The selected methodology clearly justifies the final design choice (Ch. 3.2).  ☐ Simulation setup is clearly documented and explained (Ch. 4.1). | ☐ A detailed system block diagram is documented but does not clearly explain the final design implementation (Ch. 3.1).  ☐ Different design choices are not sufficiently documented and compared (Ch. 3.1).  ☐ The selected methodology vaguely justifies the final design choice (Ch. 3.2).  ☐ Simulation setup is vaguely documented and some explanations are missing (Ch. 4.1). | ☐ A detailed system block diagram is either absent or inappropriate (Ch. 3.1).  ☐ Different design choices are not documented at all (Ch. 3.1).  ☐ The selected methodology does not justify the final design choice (Ch. 3.2).  ☐ Simulation setup is not documented and no logical justification is provided for this lapse (Ch. 4.1). |
| **PLO4**  **Investigation** | ☐ Simulations are conducted in a methodical fashion to converge to conclusive project outcomes (Ch. 4).  ☐ The results of simulations are properly documented and analyzed to justify the final design choice (Ch. 4).  ☐ The literature survey provided earlier in proposal has been fully updated to consolidate it (Ch. 2.1).  ☐ The bibliographical references are complete and in proper bibliographical style. | ☐ Simulations are conducted in a methodical fashion but they don’t converge to conclusive project outcomes (Ch. 4).  ☐ The results of simulations are sufficiently documented but their relation to the final design choice is still vague (Ch. 4).  ☐ The literature survey provided earlier in proposal has been partially updated to consolidate it (Ch. 2.1).  ☐ The bibliographical reference are in-complete and not in proper bibliographical style. | ☐ Simulations are not conducted in a methodical fashion and they don’t converge to conclusive project outcomes (Ch. 4).  ☐ The results of simulations are insufficiently documented and their relation to the final design choice is still missing (Ch. 4).  ☐ The literature survey provided earlier in proposal has not been updated to consolidate it (Ch. 2.1).  ☐ The bibliographical references are in-sufficient or absent. |
| **PLO8**  **Ethics** | ☐ The contents taken from previous works are properly cited (Ch. 3 & 4).  ☐ Figures and diagrams are adequately (re)produced by students where possible (Ch. 3 & 4). | ☐ Not all contents taken from previous works are cited (Ch. 3 & 4).  ☐ Some figures and diagrams are not correctly (re)produced by students (Ch. 3 & 4). | ☐ The contents taken from previous works are not cited (Ch. 3 & 4).  ☐ Figures and diagrams are copied from other sources or not at all (re)produced by students (Ch. 3 & 4). |
| **PLO10**  **Communication** | ☐ There are no grammatical or spelling mistakes in the document.  ☐The content organization is excellent with headings, sub-headings and bulleted items.  ☐ Figures and diagram quality is excellent with no legends and captions missing, and everything is clearly readable. | ☐ There are few grammatical or spelling mistakes in the document.  ☐The content organization is satisfactory with occasional issues in headings, sub-headings and bulleted items.  ☐ Figures and diagram quality is satisfactory with some legends and captions missing or illegible. | ☐ There are several grammatical or spelling mistakes in the document.  ☐The content organization is poor with in-consistent or missing headings, sub-headings and bulleted items.  ☐ Figures and diagram quality is poor with missing legends and captions and illegible drawings. |
| **PLO11**  **Project Management** | ☐ The timeline is updated with major milestones achieved (Ch. 1.9).  ☐ The deviation from the proposed timeline in proposal (Ch. 1.9) is clearly justified.  ☐ The project workload was evenly distributed (Ch. 1.9).  ☐ Weekly meetings were regularly attended and log/minutes were maintained. | ☐ The timeline is partially updated with major milestones achieved (Ch. 1.9).  ☐ The deviation from the proposed timeline in proposal (Ch. 1.9) is present but does not justify completely.  ☐ The project workload was somewhat evenly distributed (Ch. 1.9).  ☐ Some weekly meetings were attended and log/minutes were maintained. | ☐ The timeline is missing or not updated with major milestones achieved (Ch. 1.9).  ☐ The deviation from the proposed timeline (Ch. 1.9) is missing.  ☐ The project workload was not evenly distributed (Ch. 1.9).  ☐ Very few (less than 5) weekly meetings were attended and log/minutes were not maintained. |
| **PLO12**  **Lifelong Learning** | ☐The students have tried their best to investigate the possible design alternatives to an open-ended problem and explain it in the report. | ☐The students just tried to investigate the possible design alternatives to an open-ended problem and vaguely explain it in the report. | ☐The students did not investigate at all the different possible design alternatives to an open-ended problem or just mentioned an already existing solution in the report. | |

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Signatures:**

Advisor: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Co-Advisor/s: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Project Presentation and Final Evaluation Sproj-I:**

**PLO-Attainment Rubric:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Relevant PLO** | **Good (Above Average)**  **3** | **Satisfactory (Average)**  **2** | **Poor (Below Average)**  **1** |
| **PLO3**  **Design and**  **Development of**  **Solutions** | ☐ A detailed system block diagram is presented to highlight the final design implementation.  ☐ Different design choices are properly presented and compared.  ☐ The selected methodology clearly justifies the final design choice.  ☐ Simulation setup is clearly presented and explained. | ☐ A detailed system block diagram is presented but it does not clearly explain the final design implementation.  ☐ Different design choices are not sufficiently presented and compared.  ☐ The selected methodology vaguely justifies the final design choice.  ☐ Simulation setup is vaguely presented and some explanations are missing. | ☐ A detailed system block diagram is either not presented or is inappropriate.  ☐ Different design choices are not presented at all.  ☐ The selected methodology does not justify the final design choice.  ☐ Simulation setup is not presented and no logical justification is provided for this lapse. |
| **PLO4**  **Investigation** | ☐ Simulations are conducted in a methodical fashion to converge to conclusive project outcomes.  ☐ The results of simulations are properly presented and analyzed to justify the final design choice. | ☐ Simulations are carried out but they do not converge to conclusive project outcomes.  ☐ The results of simulations are either insufficient or improperly analyzed and presented. | ☐ No simulations were carried out to converge to conclusive project outcomes.  ☐ The results of simulations are missing from the presentation. |
| **PLO6**  **Engineer and Society** | ☐ The social benefits of the project are clearly presented.  ☐ The relevance of the project idea in solving some technical problem in our society is clearly presented. | ☐ The social benefits of the project are vaguely presented.  ☐ The relevance of the project idea in solving some technical problem in our society is vaguely presented. | ☐ The social benefits of the project are not presented.  ☐ The relevance of the project idea in solving some technical problem in our society is not presented. |
| **PLO8**  **Ethics** | ☐ The data contents taken from other works are properly cited.  ☐ Figures and diagrams are adequately  (re)produced by students where possible. | ☐ Not all data contents taken from other works are cited.  ☐ Some figures and diagrams are not correctly (re)produced by students. | ☐ The data contents taken from other works are not cited.  ☐ Figures and diagrams are copied from other sources and not at all (re)produced. |
| **PLO9**  **Individual and Team Work** | ☐ Individual contribution of different group members is clearly stated.  ☐ All team members displayed good interpersonal skills to resolve issues. | ☐ Individual contribution of different group members is specified but details are missing.  ☐ Some team members didn’t display good inter-personal skills and some issues were not resolved. | ☐ Individual contribution of different group members is absent.  ☐ Lack of team work is very apparent and no effort was done to resolve team issues. |
| **PLO10**  **Communication** | ☐ There are no grammatical or spelling mistakes in the presentation.  ☐ The quality of figures and charts/graphs is excellent with no captions missing and completely readable.  ☐The content organization is excellent with headings, sub-headings and bulleted items. | ☐ There are few grammatical or spelling mistakes in the presentation.  ☐ The quality of figures and charts/graphs is satisfactory with some captions missing or unreadable.  ☐The content organization is satisfactory with occasional issues in headings, sub-headings and bulleted items. | ☐ There are many grammatical or spelling mistakes in the presentation.  ☐ The quality of figures and charts/graphs is poor with missing captions and unreadable drawings.  ☐The content organization is poor with in-consistent or missing headings, sub-headings and bulleted items. |
| **PLO11 Project Management** | ☐ The timeline is present and updated with major milestones achieved.  ☐ The deviation from the proposed timeline  (given in proposal (Ch. 1.9)) is clearly justified.  ☐ The project workload was evenly distributed. ☐ Weekly meetings were regularly attended and log/minutes were maintained.  ☐ Tentative cost/budget analysis of the final design solution is present and tentative procurement timeline is provided. | ☐ The timeline is partially updated with major milestones achieved.  ☐ The deviation from the proposed timeline (given in proposal (Ch. 1.9)) is present but does not justify completely.  ☐ The project workload was somewhat evenly distributed.  ☐ Some weekly meetings were attended and log/minutes were maintained.  ☐ Tentative cost/budget analysis of the final design solution is present but incomplete and tentative procurement timeline is not properly evaluated. | ☐ The timeline is absent or not updated with major milestones achieved.  ☐ The deviation from the proposed timeline is missing.  ☐ The project workload was not evenly distributed.  ☐ Very few (less than 5) weekly meetings were attended and log/minutes were not maintained. ☐ Tentative cost/budget analysis of the final design solution is missing and tentative procurement timeline is not provided at all. |
| **PLO12**  **Lifelong Learning** | ☐ The students have tried their best to investigate the possible design alternatives to an open-ended problem and explain it in the presentation. | ☐ The students just tried to investigate the possible design alternatives to an open-ended problem and vaguely explain it in the presentation. | ☐ The students did not investigate at all the different possible design alternatives to an open-ended problem or just mentioned an already existing solution in the presentation. |

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Signatures:**

Advisor: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Co-Advisor/s: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Evaluation Committee: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Project Report Sproj-II:**

**PLO-Attainment Rubric:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Relevant PLOs** | **Good (Above Average)**  **3** | **Satisfactory (Average)**  **2** | **Poor (Below Average)**  **1** |
| **PLO3**  **Design and Development of Solutions** | ☐ Hardware setup and experimental procedures are clearly documented and explained (Ch.s 5.1, 5.2). | ☐ Hardware setup and experimental procedures are vaguely documented and explained (Ch.s 5.1, 5.2). | ☐ Hardware setup and experimental procedures are not documented at all (Ch.s 5.1, 5.2). |
| **PLO4**  **Investigation** | ☐ Experimental procedures are properly documented with clear justifications of final design choice (Ch. 5.1, 5.2).  ☐ Implementation results are properly documented and analyzed resulting in full achievement of project objectives (Ch.s 1.6, 5.3, 5.4).  ☐ A thorough cost analysis is provided for the proposed solution (Ch. 6)  ☐ A cogent conclusion and future recommendations are properly documented (Ch. 7) | ☐ Experimental procedures are documented but lack clear justifications of final design choice (Ch. 5.1, 5.2).  ☐ Implementation results are vaguely documented and analyzed resulting in partial achievement of project objectives (Ch.s 1.6, 5.3, 5.4).  ☐ An insufficient cost analysis is provided for the proposed solution (Ch. 6)  ☐ A vague conclusion and future recommendations are documented (Ch. 7). | ☐ Experimental procedures are not documented (Ch. 5.1, 5.2).  ☐ Implementation results are not documented and analyzed at all resulting in failures in achieving project objectives (Ch.s 1.6, 5.3, 5.4).  ☐ A cost analysis is missing (Ch. 6)  ☐ No conclusion or future recommendations are documented (Ch. 7). |
| **PLO8**  **Ethics** | ☐ The contents taken from other works are properly cited (Ch. 5, 6 & 7).  ☐ Figures and diagrams are adequately (re)produced by students where possible (Ch. 5, 6 & 7). | ☐ Not all contents taken from other works are cited (Ch. 5, 6 & 7).  ☐ Some figures and diagrams are not correctly (re)produced by students (Ch. 5, 6 & 7). | ☐ The contents taken from other works are not cited (Ch. 5, 6 & 7).  ☐ Figures and diagrams are copied from other sources and not at all (re)produced by students (Ch. 5, 6 & 7). |
| **PLO10**  **Communication** | ☐ There are no grammatical or spelling mistakes in the report.  ☐ Figures and diagram quality is excellent with no legends and captions missing, and everything is clearly readable.  ☐The content organization is excellent with headings, sub-headings and bulleted items. | ☐ There are few grammatical or spelling mistakes in the report.  ☐ Figures and diagram quality is satisfactory with some legends and captions missing or illegible.  ☐The content organization is satisfactory with occasional issues in headings, sub-headings and bulleted items. | ☐ There are several grammatical or spelling mistakes in the report.  ☐ Figures and diagram quality is poor with missing legends and captions and illegible drawings.  ☐The content organization is poor with in-consistent or missing headings, sub-headings and bulleted items. |
| **PLO11**  **Project Management** | ☐ The timeline is updated with major milestones achieved (Ch. 1.9).  ☐ The deviation from the proposed timeline in proposal (Ch. 1.9) is clearly justified.  ☐ The project workload was evenly distributed (Ch. 1.9).  ☐ Weekly meetings were regularly attended and log/minutes were maintained.  ☐ Cost/budget analysis of the final design solution is present and procurement timeline is provided (Ch. 6). | ☐ The timeline is partially updated with major milestones achieved (Ch. 1.9).  ☐ The deviation from the proposed timeline in proposal (Ch. 1.9) is present but does not justify completely.  ☐ The project workload was somewhat evenly distributed (Ch. 1.9).  ☐ Some weekly meetings were attended and log/minutes were maintained.  ☐ Cost/budget analysis of the final design solution is present but incomplete and procurement timeline is not properly evaluated (Ch. 6). | ☐ The timeline is missing or not updated with major milestones achieved (Ch. 1.9).  ☐ The deviation from the proposed timeline (Ch. 1.9) is missing.  ☐ The project workload was not evenly distributed (Ch. 1.9).  ☐ Very few (less than 5) weekly meetings were attended and log/minutes were not maintained.  ☐ Cost/budget analysis of the final design solution is missing and procurement timeline is not provided at all (Ch. 6). |
| **PLO12**  **Lifelong Learning** | ☐The students have tried their best to investigate the possible design alternatives to an open-ended problem and explain it in the report. | ☐The students just tried to investigate the possible design alternatives to an open-ended problem and vaguely explain it in the report. | ☐The students did not investigate at all the different possible design alternatives to an open-ended problem or just mentioned an already existing solution in the report. |

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Signatures:**

Advisor: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Co-Advisor/s: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Project Presentation and Final Evaluation Sproj-II:**

**PLO-Attainment Rubric:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Relevant PLOs** | **Good (Above Average)**  **3** | **Satisfactory (Average)**  **2** | **Poor (Below Average)**  **1** |
| **PLO3**  **Design and Development of Solutions** | ☐ Hardware setup and experimental procedures are clearly presented and explained. | ☐ Hardware setup and experimental procedures are vaguely presented and explained. | ☐ Hardware setup and experimental procedures are not presented at all. |
| **PLO4**  **Investigation** | ☐ Experimental procedures are properly presented with clear justifications of final design choice.  ☐ Implementation results are properly presented and analyzed resulting in full achievement of project objectives (Ch.s 1.6, 5.3, 5.4).  ☐ A thorough cost analysis is presented for the proposed solution.  ☐ A cogent conclusion and future recommendations are properly presented. | ☐ Experimental procedures are presented but lack clear justifications of final design choice.  ☐ Implementation results are vaguely presented and analyzed resulting in partial achievement of project objectives (Ch.s 1.6, 5.3, 5.4).  ☐ An insufficient cost analysis is presented for the proposed solution.  ☐ A vague conclusion and future recommendations are presented. | ☐ Experimental procedures are not presented and lack clear justifications of final design choice.  ☐ Implementation results are not presented and analyzed at all resulting in failures in achieving project objectives (Ch.s 1.6, 5.3, 5.4).  ☐ A cost analysis is missing.  ☐ No conclusion or future recommendations are presented. |
| **PLO6**  **Engineer and Society** | ☐ The social benefits of the project are clearly presented.  ☐ The relevance of the project idea in solving some technical problem in our society is clearly presented. | ☐ The social benefits of the project are vaguely presented.  ☐ The relevance of the project idea in solving some technical problem in our society is vaguely presented. | ☐ The social benefits of the project are not presented.  ☐ The relevance of the project idea in solving some technical problem in our society is not presented. |
| **PLO8**  **Ethics** | ☐ The contents taken from other works are properly cited.  ☐ Figures and diagrams are adequately (re)produced by students where possible. | ☐ Not all contents taken from other works are cited.  ☐ Some figures and diagrams are not correctly (re)produced by students. | ☐ The contents taken from other works are not cited.  ☐ Figures and diagrams are copied from other sources and not at all (re)produced by students. |
| **PLO9**  **Individual and Team Work** | ☐ Individual contribution of different group members is clearly stated.  ☐ All team members displayed good inter-personal skills to resolve issues. | ☐ Individual contribution of different group members is specified but some details are missing.  ☐ Some team members did not display good inter-personal skills and some issues were not resolved. | ☐ Individual contribution of different group members is absent.  ☐ Lack of team-work is very apparent and no efforts were done to resolve team issues. |
| **PLO10**  **Communication** | ☐ There are no grammatical or spelling mistakes in the slides.  ☐ Figures and diagram quality is excellent with no legends and captions missing, and everything is clearly readable.  ☐The content organization is excellent with headings, sub-headings and bulleted items.  ☐ Dress code and professional attire is followed by all group members. | ☐ There are few grammatical or spelling mistakes in the slides.  ☐ Figures and diagram quality is satisfactory with some legends and captions missing or illegible.  ☐The content organization is satisfactory with occasional issues in headings, sub-headings and bulleted items.  ☐ Dress code and professional attire is followed by some group members. | ☐ There are several grammatical or spelling mistakes in the slides.  ☐ Figures and diagram quality is poor with missing legends and captions and illegible drawings.  ☐The content organization is poor with in-consistent or missing headings, sub-headings and bulleted items.  ☐ Dress code and professional attire is not followed by all group members. |
| **PLO11**  **Project Management** | ☐ The timeline is presented and updated with major milestones achieved.  ☐ The deviation from the proposed timeline  (given in proposal (Ch. 1.9)) is clearly justified.  ☐ The project workload was evenly distributed.  ☐ Weekly meetings were regularly attended and log/minutes were maintained.  ☐ Cost/budget analysis of the final design solution is presented and procurement timeline is provided. | ☐ The timeline is partially updated with major milestones achieved.  ☐ The deviation from the proposed timeline (given in proposal (Ch. 1.9)) is presented but does not justify completely.  ☐ The project workload was somewhat evenly distributed.  ☐ Some weekly meetings were attended and log/minutes were maintained.  ☐ Cost/budget analysis of the final design solution is presented but incomplete and procurement timeline is not properly evaluated. | ☐ The timeline is absent or not updated with major milestones achieved.  ☐ The deviation from the proposed timeline is missing.  ☐ The project workload was not evenly distributed.  ☐ Very few (less than 5) weekly meetings were attended and log/minutes were not maintained.  ☐ Cost/budget analysis of the final design solution is missing and procurement timeline is not provided at all. |
| **PLO12**  **Lifelong Learning** | ☐The students have tried their best to investigate the possible design alternatives to an open-ended problem and explain it in the presentation. | ☐The students just tried to investigate the possible design alternatives to an open-ended problem and vaguely explain it in the presentation. | ☐The students did not investigate at all the different possible design alternatives to an open-ended problem or just mentioned an already existing solution in the presentation. |

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Signatures:**

Advisor: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Co-Advisor/s: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Evaluation Committee: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_