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| **Summary Statement of Professional Engineer CDR** | | | | |
| Competency Element | Summary of application of the element | | Paragraph number | |
| |  | | --- | | **PE1 KNOWLEDGE AND SKILL BASE** | | | | | |
| |  | | --- | | PE1.1 Comprehensive, theory-based understanding of the underpinning natural and physical sciences and the engineering fundamentals applicable to the engineering discipline. | | |  | | --- | | I pondered the needed knowledge of physical and natural sciences and have used it to the best of my competences. I did both online & offline Research on GSM & GPS technology before executing project work. | | | CE 1.2, CE 1.3, CE 2.2, CE 2.3, CE 3.2, CE 3.3 | |
| |  | | --- | | PE1.2 Conceptual understanding of the mathematics, numerical analysis, statistics and computer and information sciences which underpin the engineering discipline. | | |  | | --- | | Mathematics, numerical analysis, statistics and regimented use of computer and information sciences are main emphasis of engineering discipline; I have applied all these skills in the three projects adequately. I calculated the GPS coordinates to draft proper GPS coordination system. | | | CE 1.2, CE 1.3, CE 1.5, CE 2.2, CE 2.3, CE 2.5, CE 3.2, CE 3.3, CE 3.13 | |
| |  | | --- | | PE1.3 In-depth understanding of specialist bodies of knowledge within the engineering discipline. | | |  | | --- | | From start to end and even after the implementation of the projects, I was enthralled and demonstrated the knowledge I had integrated during my studies has been applied. I defined the purpose of GPS & connected it with microcontroller adequately. | | | CE 1.3, CE 1.5, CE 2.3, CE 2.5, CE 3.3, CE 3.5, CE 3.6, CE 3.7 | |
| |  | | --- | | PE1.4 Discernment of knowledge development and research directions within the engineering discipline. | | |  | | --- | | The projects quoted in three episodes were implemented after comprehensive study and analysis. As a team lead I proposed the block diagram for the vehicle tracking & accident reporting using GSM & GPS technology. | | | CE 1.5, CE 1.6, CE 1.7, CE 2.3, CE 2.6, CE 3.6, CE 3.7, CE 3.8 | |
| |  | | --- | | PE1.5 Knowledge of contextual factors impacting the engineering discipline. | | |  | | --- | | All the projects were based on thorough research and knowledge. I went through all the latest developments in GPS & GSM technology to better understand our research and project direction. | | | CE 1.6, CE 1.7, CE 2.6. CE 2.7, CE 3.6, CE 3.7, CE 3.8, CE 3.9 | |
| |  | | --- | | PE1.6 Understanding of the scope, principles, norms, accountabilities and bounds of contemporary engineering practice in the specific discipline. | | |  | | --- | | Showed widespread understanding of the projects and took the lead role, keeping in view all the allied disciplines. I used LVC1GX04 crystal oscillator with GPS module. | | | CE 1.5, CE 1.6, CE 1.7, CE 2.7, CE 2.8, CE 3.5, CE 3.6, CE 3.7 | |
| |  | | --- | | **PE2 ENGINEERING APPLICATION ABILITY** | | | | | |
| |  | | --- | | PE2.1 Application of established engineering methods to complex engineering problem solving. | | |  | | --- | | In these projects, I applied well-known engineering approaches to resolve problems. There was an issue in antenna selection. I implied antenna properly for successful jamming results. | | | CE 1.7, CE 1.11, CE 2.9, CE 2.13, CE 3.8, CE 3.9, CE 3.11 | |
| |  | | --- | | PE2.2 Fluent application of engineering techniques, tools and resources. | | |  | | --- | | The practices that I used were credible, while assuring cautious use of available resources. I increased the baud rate for fine communication between GPS & GSM modem. | | | CE 1.7, CE 1.8, CE 1.9, CE 1.11, CE 2.6, CE 2.7, CE 2.8, CE 3.8, CE 3.9, CE 3.10 | |
| |  | | --- | | PE2.3 Application of systematic engineering synthesis and design processes. | | |  | | --- | | I followed a methodical slant to make designs outstanding and substantial. For modification in geometry of antenna I used FEKO software. | | | CE 1.7, CE 1.8, CE 1.9, CE 2.9, CE 2.10, CE 3.8, CE 3.9, CE 3.10, CE 3.11 | |
| PE2.4 Application of systematic approaches to the conduct and management of engineering projects. | Since instigation to achievement, I confirmed application of methodical approaches. I used network analyzer to perform tests on the fabricated antenna. | | CE 1.8, CE 1.11, CE 2.9, CE 2.10, CE 3.6, CE 3.7, CE 3.8 | |
| **PE3 PROFESSIONAL AND PERSONAL ATTRIBUTES** | | | | |
| PE3.1 Ethical conduct and professional accountability. | | |  | | --- | |  |   As a team member, I kept my attitude highly professional, driven my team members and ensured they were equally valued for their assistances. I went through all the latest developments & drafted the software/hardware requirement for the projects accordingly. I listed components required for the GSM/GPS based project. | | CE 1.6, CE 1.8, CE 2.6, CE 2.8, CE 2.9, CE 3.6, CE 3.7, CE 3.13 |
| PE3.2 Effective oral and written communication in professional and lay domains. | | The projects were all self – explanatory and there was no indecisiveness in communication at any level.   |  | | --- | |  | | | CE 1.2, CE 1.3, CE 1.10, CE 2.6, CE 2.12, CE 3.6, CE 3.7, CE 3.13 |
| PE3.3 Creative innovative and proactive demeanor. | | |  | | --- | |  |   Being an ardent person, in each project I remained inventive and most visional among my group. I used AT commands to configure GSM Module. | | CE 1.7, CE 1.8, CE 1.10, CE 2.9, CE 2.10, CE 3.8, CE 3.9, CE 3.10 |
| PE3.4 Professional use and management of information. | | I assured acceptable and professional use of information in view of allocated projects. I tested the GPS/GSM Vehicle tracking system and documented all the results for presentation to the supervisor. | | CE 1.2, CE 1.14, CE 2.11, CE 2.12, CE 3.3, CE 3.5, CE 3.6, CE 3.7 |
| PE3.5 Orderly management of self and professional conduct. | | My professional conduct throughout the projects was up to the standard and highly valued. I developed project management skill after the project completion. This helped me in making firm decision during project execution. | | CE 1.6, CE 1.7, CE 2.6, CE 2.8, CE 3.6, CE 3.7, CE 3.13 |
| PE3.6 Effective team membership and team leadership. | | The projects I did were done professionally. I left no stone unturned in solving all the issues accordingly in concern with the team mates. | | CE 1.2, CE 1.3, CE 1.14, CE 2.2, CE 2.12, CE 3.3, CE 3.6, CE 3.7 |