

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

<p>PE1.4 Discernment of knowledge development and research directions within the engineering discipline.</p>	<p>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.</p>	<p>CE 1.5, CE 1.6, CE 1.7, CE 2.3, CE 2.6, CE 3.6, CE 3.7, CE 3.8</p>
<p>PE1.5 Knowledge of contextual factors impacting the engineering discipline.</p>	<p>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.</p>	<p>CE 1.6, CE 1.7, CE 2.6, CE 2.7, CE 3.6, CE 3.7, CE 3.8, CE 3.9</p>
<p>PE1.6 Understanding of the scope, principles, norms, accountabilities and bounds of contemporary engineering practice in the specific discipline.</p>	<p>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.</p>	<p>CE 1.5, CE 1.6, CE 1.7, CE 2.7, CE 2.8, CE 3.5, CE 3.6, CE 3.7</p>
<p>PE2 ENGINEERING APPLICATION ABILITY</p>		
<p>PE2.1 Application of established engineering methods to complex engineering problem solving.</p>	<p>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.</p>	<p>CE 1.7, CE 1.11, CE 2.9, CE 2.13, CE 3.8, CE 3.9, CE 3.11</p>

<p>PE2.2 Fluent application of engineering techniques, tools and resources.</p>	<p>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.</p>	<p>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</p>
<p>PE2.3 Application of systematic engineering synthesis and design processes.</p>	<p>I followed a methodical slant to make designs outstanding and substantial. For modification in geometry of antenna I used FEKO software.</p>	<p>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</p>
<p>PE2.4 Application of systematic approaches to the conduct and management of engineering projects.</p>	<p>Since instigation to achievement, I confirmed application of methodical approaches. I used network analyzer to perform tests on the fabricated antenna.</p>	<p>CE 1.8, CE 1.11, CE 2.9, CE 2.10, CE 3.6, CE 3.7, CE 3.8</p>
<p>PE3 PROFESSIONAL AND PERSONAL ATTRIBUTES</p>		
<p>PE3.1 Ethical conduct and professional accountability.</p>	<p>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.</p>	<p>CE 1.6, CE 1.8, CE 2.6, CE 2.8, CE 2.9, CE 3.6, CE 3.7, CE 3.13</p>

<p>PE3.2 Effective oral and written communication in professional and lay domains.</p>	<p>The projects were all self – explanatory and there was no indecisiveness in communication at any level.</p>	<p>CE 1.2, CE 1.3, CE 1.10, CE 2.6, CE 2.12, CE 3.6, CE 3.7, CE 3.13</p>
<p>PE3.3 Creative innovative and proactive demeanor.</p>	<p>Being an ardent person, in each project I remained inventive and most visional among my group. I used AT commands to configure GSM Module.</p>	<p>CE 1.7, CE 1.8, CE 1.10, CE 2.9, CE 2.10, CE 3.8, CE 3.9, CE 3.10</p>
<p>PE3.4 Professional use and management of information.</p>	<p>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.</p>	<p>CE 1.2, CE 1.14, CE 2.11, CE 2.12, CE 3.3, CE 3.5, CE 3.6, CE 3.7</p>
<p>PE3.5 Orderly management of self and professional conduct.</p>	<p>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.</p>	<p>CE 1.6, CE 1.7, CE 2.6, CE 2.8, CE 3.6, CE 3.7, CE 3.13</p>
<p>PE3.6 Effective team membership and team leadership.</p>	<p>The projects I did were done professionally. I left no stone unturned in solving all the issues accordingly in concern with the team mates.</p>	<p>CE 1.2, CE 1.3, CE 1.14, CE 2.2, CE 2.12, CE 3.3, CE 3.6, CE 3.7</p>