

PROFESSIONAL ENGINEER Summary Statement

Competency Element	A brief summary of how you have applied the element	Paragraph in the career episode(s) where the element is addressed
PE1 KNOWLEDGE BASE		
PE1.1 Knowledge of science and engineering fundamentals	<p>a) I had studied Math level 3 in the university and used it in machine design. I used it in computing from the basic such as resistor values in circuits to signal analysis.</p> <p>b) The basics of micro-controllers helped me in interfacing these components with other semiconductor devices.</p>	<p>CE 2.3 CE 2.4 CE 1.8</p> <p>CE 2.12</p> <p>CE 3.2 CE 3.3</p>
PE1.2 In-depth technical competence in at least one engineering discipline	<p>a) Designing of circuits for my projects was due to my expertise in circuit theory as a result I gained immense experience from assembling a Pcb to trouble-shooting.</p> <p>b) My reference to manuals and its understanding of the background came from units like measurement and instrumentation and control system. This was helpful in testing the devices I made and the research work.</p>	<p>CE 2.11 CE 2.13 CE 1.8 CE 1.9</p> <p>CE 2.6 CE 2.14 CE 2.3</p>
PE1.3 Techniques and resources	<p>a) I begin with the problem in hand and then arrive at the solution.</p> <p>b) Reference to manuals has been a key component in completing projects in time.</p> <p>c) I always carry a Multi-meter which helps me in troubleshooting and also borrow Ossilloscope in the design phase so it is easier for me to construct the circuit based on the signal.</p> <p>d) I learnt to assemble and solder a PCB-circuit at an early age from my dad's workplace.</p>	<p>CE 2.4 CE 2.8 CE 1.11 CE 1.12</p> <p>CE 2.10</p> <p>CE 2.10</p>
PE1.4 General Knowledge	<p>a) My knowledge-base comes from reading Electronic For You. This aided me in circuit designing and interfacing.</p> <p>b) My dad being an engineer I gain a lot of knowledge, one of the heated discussion was the reason I chose RFID as a control mechanism for the electrical and electronic devices.</p> <p>c) Most of the physics I get it online. And the latest research work I get it from IEEE.</p>	<p>CE 2.11 CE3.4 CE 3.6</p>
PE2 ENGINEERING ABILITY		

PE2.1 Ability to undertake problem identification, formulation, and solution	a) I had taken up the problem of interfacing a signal processor to computer and successfully built the equipment.	CE 2.4 CE 2.8 CE 1.1 CE 3.8
PE2.2 Understanding of social, cultural, global, and environmental responsibilities and the need to employ principles of sustainable development	a) I make sure that the devices I build have a notification before they die out so user can become aware of the replacement. b) I also measure for power consumption at the end of the project c) I reasearch into the best solutions in the current state making sure it will conform to the future standard. d) I communicate well with my colleagues and always enjoyed the work taken up.	CE 2.16 CE 1.3 CE 2.15 CE 3.11 CE 2.1 CE 2.5
PE2.3 Ability to utilise a systems approach to complex problems and to design and operational performance	a) I analyse the various possible outcomes so I get more data for a better solution. b) I make performance comparison of different variation of the same stream.	CE 2.2 CE 2.6
PE2.4 Proficiency in engineering design	a) I begin with circuit design, then PCB design followed by assembly,testing and documentation. b) I formulate my design based on the latest system and make them compatible with other systems..	CE 2.10 CE 1.8 CE 2.13 CE 1.9
PE2.5 Ability to conduct an engineering project	a) My Under-graduate projects were done with proper planning and debates to arrive at the best strategy. b) I keep the time factor high while maintaining operation efficiency.	CE 2.6
PE2.6 Understanding of the business environment	a) I have been working in the retail department which provided the exposure to operational logistics. b) I identify the key requirements of a buisness and device my strategy to complete my project in accordance.	CV
PE3 PROFESSIONAL ATTRIBUTES		
PE3.1 Ability to communicate effectively, with the engineering team and with the community at large	a) Most of my decisions are based on discussions between team-members during projects. b) I keep my engineering lingua sharp so I can effectively communicate with the audience(in the same field).	CE 2.1 CE 2.5 CE 3.11 CE 2.1 CE 2.5 CE 3.12 CE 3.1
PE3.2 Ability to manage information and documentation	a) I keep the user end documentation simple for their easy understanding. b) I keep filling in the technical documentation along design phase for maximum guidance and ease of trouble-shooting.	CE 2.9 CE 2.15 CE 1.13
PE3.3 Capacity for creativity and innovation	a) I developed the Image capture device from very basic ideas. b)My projects abiltiy to interface has always been my key intrest and success.	CE 2.2

PE3.4 Understanding of professional and ethical responsibilities, and commitment to them	<p>a) I maintain professional attitude in the workenvironment.</p> <p>b) I easily develop a trust from my superiors with my timed completion and confendetiality.</p>	<p>CE 2.5</p> <p>CE 2.5 CE 1.15</p>
PE3.5 Ability to function effectively as an individual and in multidisciplinary and multicultural teams, as a team leader or manager as well as an effective team member	<p>a) I have completed my RFID project as a team with interaction between 2 different organisations.</p> <p>b) I have completed the Image capture device as a leader managing everyting from logisticts to final documentations.</p>	<p>CE 2.5</p> <p>CE 1.13</p>
PE3.6 Capacity for lifelong learning and professional development	<p>a) Every project I undertake will be under constant improvement and new ideas as the technology improves.</p>	<p>CE 2.6 CE 1.14 CE 3.1 CE 3.12</p>
PE3.7 Professional Attitudes	<p>a) I maintain professional attitude, both in my request for grant for the project and throught the work phase.</p>	<p>CE 2.5 CV CE 1.4 CE 1.5</p>