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Differences between Technicians and Engineers: An Analysis Based on UK-SPEC

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Abstract: *This work compares and contrasts the similarities and differences amongst Engineering Technicians (EngTech), Incorporated Engineers (IEng) or Technologists, and Chartered Engineers (CEng). It examines the competencies and commitment requirements of five (5) generic areas as specified by the United Kingdom Standard for Professional Engineering Competence (UK-SPEC). These areas are: Knowledge and Understanding (KU); Design and Development of processes, systems, services and products (DD); Responsibility, Management or Leadership (RML); Communication and Inter-personal Skills (CIPS), and Professional Commitment (PC). It is found that in KU there are two (2) similarities and eight (8) differences; in DD three (3) similarities and eight (8) differences; in RML three (3) similarities and nine (9) differences; in CIPS there are one (1) similarity and two (2) differences and in PC there is one (1) similarity and three (3) differences. These similarities and differences are articulated in keywords associated by specific roles and responsibilities. The study analyses a local context of job advertisements for recruitment based on UK SPEC, and looks at first level requirements for the five (5) generic areas of competence and commitment and does not analyse their specific guidelines. A case study was performed in which six (6) companies' job application advertisements were compared with that of the UK SPEC requirements for EngTech, IEng and CEng in Trinidad and Tobago. The findings suggested that Top Management (TM) of firms to clarify the blurred lines of roles, responsibilities and authorities between technicians and engineers. TM can use the findings of the research to assign specific problems to either EngTech, IEng or CEng. Also, their individual skills set could be pooled to improve the effectiveness of the teams to which they are assigned. An Engineering Competency Structure (ECS) is proposed which could be of immense value to engineering professionals in fostering better teamwork between the two, hence increasing their effectiveness and efficiencies.*

Keywords: *Chartered engineers, technologists, engineering technicians*