

Appendix #1

Table [1] The relationship matrix of "Institute's Mission Vs Program's Mission" and The relationship matrix of "Program's Mission Vs Program Aims".

The Faculty of Engineering - Ain Shams University is a nationally and regionally renowned institution in:			Program's Mission (PM)				
			PM 1	PM 2	PM 3	PM 4	PM 5
Institute's Mission (IM)	IM 1	Graduating talented engineers capable of innovating, and					
	IM 2	Keeping abreast of the global development at engineering disciplines,					
	IM 3	to meet the needs of regional and international employment markets and entrepreneurship.					
	IM 4	It also develops scientific and engineering knowledge to meet the needs of society and sustainable development goals.					
			PM 1	PM 2	PM 3	PM 4	PM 5
Program Aims (PA)	PA 1	Apply knowledge of mathematics, science and engineering concepts to the solution of engineering problems.					
	PA 2	Design a system; component and process to meet the required needs within realistic constraints.					
	PA 3	Design and conduct experiments as well as analyse and interpret data.					
	PA 4	Identify, formulate and solve fundamental engineering problems.					
	PA 5	Use the techniques, skills, and appropriate engineering tools, necessary for engineering practice and project management.					
	PA 6	Work effectively within multi-disciplinary teams.					
	PA 7	Communicate effectively.					
	PA 8	Consider the impacts of engineering solutions on society & environment.					
	PA 9	Demonstrate knowledge of contemporary engineering issues.					
	PA 10	Display professional and ethical responsibilities; and contextual understanding					
	PA 11	Engage in self- and life- long learning.					
	PA 12	Work with mechanical design and manufacturing systems.					
	PA 13	Use of mathematics and physical and engineering sciences and systems analysis					

		tools in products, components and machines design, and/or the manufacturing of such products, components and machines.					
PA 14		Use different instruments, devices and tools appropriately and carry-out wide range of experiments, automatic data acquisition, data analysis and interpretation, and data presentation, both orally and in the written form.					
PA 15		Use the computer software for design, communication and visualization.					
PA 16		Use and/or develop computer software, necessary for the design, manufacturing and management of industrial systems and projects.					
PA 17		Analyze multi-disciplinary mechanical, electrical, electronic, thermal and hydraulic systems.					
PA 18		Lead and supervise groups of designers, technicians and other work force.					

Table [2] The relationship matrix of "Program's Mission Vs Graduate's attributes"

	Graduate Attributes (GA)				
Program Mission		GA1	GA2	GA3	GA4
	PM1				
	PM2				
	PM3				
	PM4				
	PM5				

Table [3] The relationship matrix of "Program Aims Vs Program Graduate's Attributes".

		Graduate's attributes (GA)			
		GA 1	GA 2	GA 3	GA 4
Program Aims (PA)	PA 1				
	PA 2				
	PA 3				
	PA 4				
	PA 5				
	PA 6				
	PA 7				
	PA 8				
	PA 9				
	PA 10				
	PA 11				
	PA 12				
	PA 13				
	PA 14				
	PA 15				
	PA 16				
	PA 17				
	PA 18				

Table [4] The relationship matrix of "Graduate's Attributes Vs Program's Competences".

		Graduate's attributes (GA)			
		GA 1	GA 2	GA 3	GA 4
Program Aims (PA)	A 1				
	A 2				
	A 3				
	A 4				
	A 5				
	A 6				
	A 7				
	A 8				
	A 9				
	A 10				
	B1m				
	B2m				
	B3m				
	B4m				
	C1				
	C2				
	C3				
	C4				
	C5a				
	C5b				
	C5c				
	C5d				