D-SETARA (ENGINEERING) SUMMARY INSTRUMENT

INPUT: GOVERNANCE							8.00	Source of Data
No.	**Criteria**	**Indicators**	**Weight**	**Sub-weight**	**Unit Data**	**Benchmark**	**Full Marks**	
1	Governing Body (Deans, Head of Departments, Head of Programmes/ Units)	Routinely distinguishes between its governance role and the responsibilities of management	12.5	33.33	Score	5	0.33	Institutional Data (Self-Assessment with Documentary Evidence)
		The governing body ensures matters concerning teaching and learning quality are actively discussed		33.33	Score	5	0.33	
		The governing body reviews and amends formal financial, personnel and other delegations of responsibility		33.33	Score	5	0.33	
2	Academic Governance	Organisational structures and functions, and the relationships within them, are documented and are openly communicated	12.5	50.00	Score	5	0.50	Institutional Data (Self-Assessment with Documentary Evidence)
		A comprehensive and institutionalised committee system has responsibility for academic programmes		50.00	Score	5	0.50	
3	Management and Staff	Clearly documented and publicly communicated stated position descriptions, selection criteria, and selection process for all staff	12.5	33.33	Score	5	0.33	Institutional Data (Self-Assessment with Documentary Evidence)
		Annual performance review (appraisal) of all staff, with reference to Key Performance Indicators (KPI)		33.33	Score	5	0.33	
		Systematic professional development programmes in place for all staff		33.33	Score	5	0.33	
4	Strategic Planning	Strategic plan in place, with measurable goals/targets	12.5	25.00	Score	5	0.25	Institutional Data (Self-Assessment with Documentary Evidence)
		Individuals are allocated responsibilities and timelines for implementation and are held accountable for performance		25.00	Score	5	0.25	
		Progress is monitored annually through a reporting system		25.00	Score	5	0.25	
		Risk management processes in place		25.00	Score	5	0.25	

INPUT: GOVERNANCE							8.00	Source of Data
No.	**Criteria**	**Indicators**	**Weight**	**Sub-weight**	**Unit Data**	**Benchmark**	**Full Marks**	
5	Academic Autonomy	Able and resourced to design/modify the courses offered and the curricula	10.0	50.00	Score	5	0.40	Institutional Data (Self-Assessment with Documentary Evidence)
		Academic staff are able to focus on areas of their expertise		50.00	Score	5	0.40	
6	Clearly Defined Lines of Responsibility & Decision-Making	Roles of committees, individual managers and staff are distinguishable	15.0	50.00	Score	5	0.60	Institutional Data (Self-Assessment with Documentary Evidence)
		Regular individual target setting and performance reviews linked to rewards		50.00	Score	5	0.60	
7	Student Representation	There is effective student representation in academic matters	12.5	50.00	Score	5	0.50	Institutional Data (Self-Assessment with Documentary Evidence)
		There is effective student representation in student affairs		50.00	Score	5	0.50	
8	Organisational Climate	Organisational climate surveys are conducted regularly and indicated improvements are enacted	12.5	33.33	Score	5	0.33	Institutional Data (Self-Assessment with Documentary Evidence)
		Two-way consultative communication systems exist		33.33	Score	5	0.33	
		Flexible work arrangements for all staff exist		33.33	Score	5	0.33	
Total Marks for Governance							**16.00**	

INPUT: PHYSICAL AND FINANCIAL RESOURCES							6.00	Source of Data
No.	**Criteria**	**Indicators**	**Weight**	**Sub-weight**	**Unit Data**	**Benchmark**	**Full Marks**	
1	Infrastructure (Physical)	Percentage of annual operating expenditure (excluding R&D allocations) on library resources	50.0	33.33	%	2	1.00	Institutional Data
		Average number of student per experiment set		33.33	Number	3	1.00	
		Graduate satisfaction with facilities		33.33	Score	5	1.00	Tracer Study Q24 a, b, c and n
2	Financial	Annual operating expenditure (excluding R&D allocations) per student	20.0	100.00	RM/Student	Flexible	1.20	Institutional Data
3	Support Services	Percentage of Full-Time Equivalent (FTE) students given full fee waiver or equivalent financial aid	30.0	50.00	%	5	0.90	
		Number of students per academic advisor		50.00	Number	15	0.90	
Total Marks for Physical and Financial Resources							**6.00**	

INPUT: TALENT (QUALITY, EXPERIENCE AND DIVERSITY)							6.00	Source of Data
No.	**Criteria**	**Indicators**	**Weight**	**Sub-weight**	**Unit Data**	**Benchmark**	**Full Marks**	
1	Academic Staff Adequacy	Students per academic staff	10.0	100.00	Number	15	0.60	Institutional Data
	Academic Staff Capability	Percentage of PhD qualified academic staff (and its equivalent)	20.0	40.00	%	60	0.48	
		Percentage of academic staff with professional engineering qualification		40.00	%	30	0.48	
		Academic staff training/development (including conferences, sabbaticals) expenses: Percentage of annual operating expenditure (excluding R&D allocations) spent on staff training		20.00	%	5	0.24	
	Academic Staff Experience	Percentage of academic staff with 20 years or more teaching experience	30.0	50.00	%	10	0.90	Institutional Data
		Percentage of academic staff with at least 3 years accumulated FTE industry/professional experience		50.00	%	30	0.90	
	Overall Quality of Academic Staff	Graduate satisfaction with academic staff	5.0	100.00	Score	5	0.30	Tracer Study Q23
2	Student Quality	Percentage of home enrolment with CGPA ≥ 3.00 or equivalent on entry	30.0	75.00	%	50	1.35	Institutional Data
		Percentage of enrolment on scholarships from external agencies		25.00	%	5	0.45	
	Diversity of Student	Percentage of international students	5.0	100.00	%	5	0.30	
Total Marks for Talent (Quality, Experience and Diversity)							**6.00**	

PROCESS							40.00	
No.	**Criteria**	**Indicators**	**Weight**	**Sub-weight**	**Unit Data**	**Benchmark**	**Full Marks**	**Source of Data**
1	Curriculum	Relevance: Graduates' Assessment	20.0	12.50	Score	5	1.00	Tracer Study Q20a
		Relevance: Institutional Assessment		12.50	Score	5	1.00	Institutional Data (Self-Assessment with Documentary Evidence)
		Comprehensiveness (Extent it meets the cognitive, psychomotor, affective): Graduates' Assessment		12.50	Score	5	1.00	Tracer Study Q20b, c, e and g
		Comprehensiveness (Extent it meets the cognitive, psychomotor, affective): Institutional Assessment		12.50	Score	5	1.00	Institutional Data (Self-Assessment with Documentary Evidence)
		Challenging (Extent it encourages higher order thinking and decision making): Graduates' Assessment		12.50	Score	5	1.00	Tracer Study Q25f, g and h
		Challenging (Extent it encourages higher order thinking and decision making): Institutional Assessment		12.50	Score	5	1.00	Institutional Data (Self-Assessment with Documentary Evidence)
		Currency (Extent it incorporates the latest appropriate philosophy, theories, techniques and benchmarking)		25.00	Score	5	2.00	Institutional Data (Self-Assessment with Documentary Evidence)
		Sub-total for Curriculum					**8.00**	

PROCESS							40.00	
No.	**Criteria**	**Indicators**	**Weight**	**Sub-weight**	**Unit Data**	**Benchmark**	**Full Marks**	**Source of Data**
2	Quality Delivery/ Pedagogy	Effectiveness: The content, approach, and teaching-learning methods of the curricula are consistent with, and supportive of, their learning outcomes	20.0	25.00	Score	5	2.00	Institutional Data (Self-Assessment with Documentary Evidence)
		Effectiveness: A variety of teaching-learning methods in order to achieve all the domains of the learning outcomes and to ensure that students take responsibility for their own learning		25.00	Score	5	2.00	
		Effectiveness: The teaching and learning activities are consistent with the curriculum		25.00	Score	5	2.00	
		Efficiency: Percentage of academic to total staff population		25.00	%	67	2.00	Institutional Data
		Sub-total for Delivery and Pedagogy					**8.00**	
3	Quality Assessment	Transparent, Valid and Reliable: Graduates' Assessment	25.0	50.00	Score	5	5.00	Tracer Study Q21a, b and c
		Transparent, Valid and Reliable: Institutional Assessment		50.00	Score	5	5.00	Institutional Data (Self-Assessment with Documentary Evidence)
		Sub-total for Quality Assessment					**10.00**	
4	Monitoring	External: Percentage of four-year programmes are accredited by Engineering Accreditation Council Malaysia (EAC)	20.0	33.33	%	100	2.67	Institutional Data
		Internal: There is a comprehensive policy on the reviewing, monitoring and evaluation of all programmes		33.33	Score	5	2.67	Institutional Data (Self-Assessment with Documentary Evidence)
		Internal: Student performance and progression is analysed to ascertain the achievement of the learning outcomes of each programme		33.33	Score	5	2.67	Institutional Data (Self-Assessment with Documentary Evidence)
		Sub-total for Monitoring					**8.00**	

PROCESS							40.00	
No.	**Criteria**	**Indicators**	**Weight**	**Sub-weight**	**Unit Data**	**Benchmark**	**Full Marks**	**Source of Data**
5	Ancillary Activities	Internship (industrial training) programme quality	15.0	15.00	Score	5	0.90	Institutional Data (Self-Assessment with Documentary Evidence)
		Internship (industrial training): Feedback from the employers		15.00	Score	5	0.90	Institutional Data (Self-Assessment with Documentary Evidence)
		Outreach: Percentage of students participating in outreach/community programmes		10.00	%	25	0.60	Institutional Data
		Exchange: Percentage of in-bound exchange students		15.00	%	5	0.90	
		Exchange: Percentage of out-bound exchange students		15.00	%	5	0.90	
		Extra-curricular: Extent of students' participation		15.00	Score	5	0.90	Tracer Study Q15a (i), (ii) and (iii)
		Percentage of students who are members of engineering organisations		15.00	%	50	0.90	Institutional Data
		Sub-total for Ancillary Activities					**6.00**	
Total Marks for Process							**40.00**	

OUTPUT: QUALITY OF GRADUATES AND GRADUATE SATISFACTION							40.00	Source of Data
No.	**Criteria**	**Indicators**	**Weight**	**Sub-weight**	**Unit Data**	**Benchmark**	**Full Marks**	
1	Graduate Marketability	Employment rate (six months after completion of studies or continuing studies)	30.0	50.00	%	100	6.00	Tracer Study Q40 and 54
		Average monthly starting pay of graduates who are employed		50.00	RM	Flexible	6.00	Tracer Study Q44
2	Graduate Satisfaction	Average satisfaction with the Higher Education Provider (HEP) of the graduates	10.0	100.00	Score	5	4.00	Tracer Study Q20,21,22,23,24,25 and 26 (b)
3	Employers' Satisfaction	Average satisfaction with the graduates of the HEP	30.0	50.00	Score	5	6.00	Employer Satisfaction Survey
		Intention to employ from the HEP		50.00	Score	5	6.00	
4	Generic Student Attributes	The seven generic student attributes	15.0	100.00	Score	5	6.00	Employer Satisfaction Survey / Tracer Study Q27
5	Student Performance	Percentage of student completing within the stipulated time	5.0	100.00	%	100	2.00	Institutional Data
6	Competitions and Awards	Number of participation by students in international or national engineering oriented competition per programme	10.0	50.00	Number	1	2.00	
		Number of achievement by students in international or national engineering oriented competition per programme		50.00	Number	1	2.00	
Total Marks for Quality of Graduates and Graduate Satisfaction							**40.00**	