


Guideline for Engineering Consultancy Grades

Process [-ING]'s company policy of grades and a helpful tool for managers, engineering professionals, and human resource professionals

ASSESSMENT CRITERIA		LEVEL OF PROFESSIONAL DEVELOPMENT AND ADVANCEMENT IN ENGINEERING, TECHNOLOGY, AND MANAGEMENT CONSULTANCY (*)							
		Grade I	Grade II	Grade III	Grade IV	Grade V	Grade VI	Grade VII	Grade VIII
Subject oriented competencies & methodological expertises	Core competencies	(+)Acquires limited knowledge and develops basic skills in basic engineering and equipment qualification works. (+)Applies prescribed techniques and procedures in accordance with established criteria to perform assigned tasks. (+)Performs routine engineering and qualification work which does not require previous experience. (+)Acquires an understanding of professional and ethical responsibilities.	(+)Acquires basic knowledge and develops skills in a specific practice area of extended Basic Engineering, systems / equipment qualification work, and advanced validation methods. (+)Applies standard techniques, procedures, and criteria to perform assigned tasks as part of a broader assignment. (+)Exercises limited judgment on details of work and in application of standard methods for conventional work.	(+)Develops broad knowledge and skills in practice area extended Basic Engineering, Systems / Equipment Qualification. (+)Evaluates, selects, and applies standard techniques, procedures, and criteria to perform a task or sequence of tasks for Advanced Validation Methods, and Process Optimization in conventional projects with some complex features. (+)Collaboratively uses judgment to determine adaptations in methods for nonroutine aspects of assignments. (+)Works on small projects or portions of larger projects like Engineering, Procurement, Construction Management & Validation projects.	(+)Applies broad knowledge of principles and practices in a specific practice area. (+)Independently evaluates, selects, and adapts standard techniques, procedures, and criteria of advanced process validation methods and process optimization. (+)Acquires general knowledge of principles and practices of related fields of primary and secondary manufacturing as well as medical devices, and ability to function on multidisciplinary teams. (+)Works on multiple projects of moderate size or portions of major projects.	(+)Applies a thorough knowledge of current principles and practices of design, engineering, and validation as related to the variety of aspects affecting his or her organization. (+)Applies knowledge and expertise acquired through progressive experience to resolve crucial issues and/or unique conditions. (+)Keeps informed of new methods and developments affecting his or her organization, and recommends new practices or changes in emphasis of programs. (+)Works on programs of limited complexity and scope.	(+)Independently applies extensive and diversified knowledge of principles and practices in broad areas of assignments and related fields. (+)Uses advanced techniques in the modification or extension of theories and practices of sciences and disciplines to complete assignments. (+)Works on a major project or several projects of moderate scope with complex features.	(+)Uses creativity, foresight, and mature judgment in anticipating and solving unprecedented problems. (+)Makes decisions and recommendations that are authoritative and have an important impact on extensive organizational activities. (+)Sets priorities and reconciles directions from competing interests. (+)Works on programs with complex features.	(+)Makes decisions with broad influence on the activities of his or her organization. (+)Makes authoritative decisions and recommendations that are conclusive and have a far-reaching impact on the organization. (+)Demonstrates a high degree of creativity, foresight, and mature judgment in planning, organizing, and guiding extensive programs and activities of major consequence.
	Technical / operational responsibilities	(+)Collects data and gathers information or documents. (+)Performs standard computations or analysis. (+)Prepares drawings and visual aids. (+)Observes construction activities. (+)Performs basic survey work.	(+)Performs basic design tasks. (+)Assists on other tasks such as: preparation of permit applications, material testing, drawings, and computer-aided design (CAD) work.	(+)Performs moderate design tasks. (+)Prepares portions of project documents. (+)Edits specifications. (+)Performs research and investigations.	(+)Designs a complete project, system, or process. (+)Prepares complete project documents. (+)Designs and conducts experiments, and analyzes and interprets data. (+)Formulates and solves problems	(+)Reviews complete project documents for conformity and quality assurance. (+)Develops new techniques and/or improved processes, materials, or products. (+)Assists upper level management and staff as a technical specialist or advisor.	(+)Serves as the technical specialist for the organization in the application of advanced concepts, principles, and methods in an assigned area. (+)Keeps informed of new developments and requirements affecting the organization for the purpose of recommending changes in programs or applications. (+)Interprets, organizes, executes, and coordinates assignments.	(+)Develops standards and guidelines. (+)Leads the organization in a broad area of specialization or in a narrow but intensely specialized field.	(+)Performs advisory or consulting work for the organization for broad program areas or an intensely specialized area with innovative or important aspects.
Professional leadership skills and conduct	Managerial responsibilities	(+)No managerial responsibilities at this level.	(+)Assigns tasks to and coordinates with technicians or administrative staff.	(+)Assigns tasks to and coordinates work with entry-level engineers, technicians, or administrative staff. (+)Assists in determining schedule and budget requirements.	(+)Assigns tasks to and directs engineers, technicians, and administrative staff. (+)Plans and coordinates detailed aspects of the engineering work. (+)Prepares scopes, budgets, and schedules for assignments. (+)Assists with proposals to provide professional services or obtain funding for engineering projects or programs.	(+)Supervises all staff necessary to complete assignments. (+)Reviews and approves scopes, budgets, and schedules for assignments. (+)Prepares proposals to provide professional services or obtain funding for engineering projects or programs.	(+)Supervises a staff of engineers and technicians. (+)Plans, schedules, or coordinates the preparation of documents or activities for multiple major projects, or is responsible for an entire program of an organization. (+)Reviews operational procedures to ensure compliance with applicable policies and performance measures.	(+)Supervises several organizational segments or teams. (+)Recommends facilities, personnel, and funds required to carry out programs. (+)Oversees the technical, legal, and financial issues of an entire program. (+)Determines program objectives and requirements. (+)Develops standards and guidelines.	(+)Leads an entire program of critical importance. (+)Decides the kind and extent of engineering and related programs needed for accomplishing the objectives of an organization.
	Collaboration and received direction	(+)Receives close supervision on all aspects of assignments.	(+)Receives close supervision on unusual or difficult problems, and general review of all aspects of work.	(+)Receives instruction on specific objectives. (+)Receives direction on unconventional and/or complex problems, and possible solutions. (+)Receives a thorough review of completed work for application of sound professional judgment.	(+)Receives general direction on key objectives. (+)Receives guidance when necessary on unconventional or complex problems, direction on modified techniques, and new approaches on assignments with conflicting criteria.	(+)Receives supervision and guidance relating to overall objectives, critical issues, new concepts, and policy matters. (+)Receives direction on unusual conditions and developments	(+)Receives administrative supervision with assignments given in terms of broad general objectives and limits.	(+)Receives administrative supervision with assignments given in terms of broad general objectives and limits.	(+)Receives general administrative direction from a board of directors or regional council.
	Communication Skills	(+)Possesses basic oral and written communication skills. (+)Interacts with other staff.	(+)Interacts with staff and contractors.	(+)Possesses effective oral and written communication skills. (+)Assists with client, customer, or official contacts and communication pertaining to specific assignments or meetings.	(+)Interacts with clients, customers, officials, contractors, and others. (+)Attends project meetings and presents specific aspects of engineering assignments.	(+)Possesses advanced oral and written communication skills. (+)Represents the organization in communications and conferences pertaining to broad-aspects of engineering assignments.	(+)Routinely interacts with clients, customers, officials, contractors, and others. (+)Leads project meetings and makes presentations. (+)Represents the organization and maintains liaison with individuals and related organizations.	(+)Possesses exceptional oral and written communication skills. (+)Routinely interacts with organization leaders, clients, customers, officials, contractors, and others. (+)Initiates and maintains extensive contacts with key engineers and officials, or other organizations and companies. (+)Demonstrates skills in persuasion and negotiation of critical issues.	(+)Negotiates critical and controversial issues with top-level engineers and officers of other organizations and companies. (+)Conducts presentations and may participate in media interviews. (+)Represents his or her organization at important functions or conferences, including media interviews as required.
	Community activities	(+)Member of professional practice organization.	(+)Member of professional practice organization, member of local program or committee.	(+)Member of professional practice organization, chair of local program or committee.	(+)Preparation and publication of white papers. (+)Member of professional practice organization, national board member or officer, national technical or policy committee member.	(+)Member of professional practice organization, national board member or officer, national technical or policy committee member.	(+)Member of professional practice organization, national board member or officer, national technical or policy committee member.	(+)Member of professional practice organization, national board member or officer, recognized expert on statewide activity, resource for national activities and organization.	(+)Member of professional practice organization, recognized expert on national activity or spokesperson for the profession.
	Higher education & certification	(+)Bachelor's degree in science or engineering from an accredited program.	(+)Participation in Master Studies / Master Classes. (+)Bachelor's degree in science or engineering from an accredited program.	(+)Successfully completion of relevant Master Classes. (+)Engaged in life-long learning to maintain knowledge of contemporary issues. (+)Master's degree or equivalent.	(+)Tutor, module instructor, individual doctorate. (+)Supervises bachelor theses. (+)Successfully completion of relevant Master Classes. (+)Engaged in life-long learning to maintain knowledge of contemporary issues. (+)Master's degree or equivalent.	(+)Module instructor, Lecturer at university. (+)Supervises master and examine bachelor theses. (+)Design and organization of Master Classes. (+)Engaged in life-long learning to develop knowledge of contemporary issues. (+)Master's degree, Ph.D. or equivalent.	(+)Lecturer at university. (+)Examine master's theses and supervises doctoral dissertations. (+)Design and organization of Master Classes. (+)Engaged in life-long learning to maintain knowledge of contemporary issues. (+)Master's degree or equivalent / Doctorate for faculty.		
Hands-on Practice	(+)Freshman, without practical experience. (+)Probation period.	(+)Practice oriented vocational practice. (+)Initial project experience. (+)One year of practice	(+)Practice oriented vocational and hands-on trainings. (+)Diverse project related assignments. (+)One or two years of professional practice.	(+)Diverse project related assignments with deep insight practice. (+)Two to four years of practice.	(+)Practical experience over the complete project and project management life cycle. (+)Diverse project related assignments with deep insight practice. (+)Three to eight years of practice.	(+)Deep experience over the complete project and project management life cycle. (+)Multitude project related assignments with deep insight practice. (+)Five to ten years of practice.	(+)Project Sponsor / Project Ownership. (+)Deep experience over the complete project and project management life cycle. (+)Multitude project related assignments with deep insight practice. (+)Seven to 15 years of practice.	(+)Project Sponsor / Project Ownership. (+)Deep experience over the complete project and project management life cycle. (+)Multitude project related assignments with deep insight practice. (+)More than 15 years of practice.	
Typical functions & positions	(+)Junior Process Engineer. (+)Junior Analyst.	(+)Process Engineering Professional. (+)Junior Project Engineer. (+)Project Management Assistant. (+)Analyst	(+)Process Engineering Professional. (+)Associate Systems Engineer. (+)Senior Engineering Professional. (+)Associate Consultant. (+)Senior Analyst. (+)Tutor.	(+)Senior / Lead Process Engineering Professional. (+)Lead Process Engineering Professional. (+)Lead Project Engineering Professional. (+)Engineering / Qualification Manager. (+)Associate Consultant. (+)Assistant Lecturer.	(+)Principal Engineer / Subject Matter Expert. (+)Senior Engineering / Validation Manager. (+)Project Management Professional. (+)Principal Consultant. (+)Junior Partner. (+)Professor / Lecturer.	(+)Qualified Consulting Expert. (+)Program / Portfolio Management Professional. (+)Vice President. (+)Director / Managing Partner.	(+)Senior Partner. (+)Managing Director / Partner. (+)Dean, President.		

(*) / The on-hand guidance is derived from professional associations as follows:

(i) American Institute of Chemical Engineers (AIChE),
(ii) American Society of Mechanical Engineers (ASME), and
(iii) American Society of Civil Engineers (ASCE).

A.0		14.08.2018	Work in progress	Gen	N/A	N/A	N/A
INDEX	DATE	REVISION	BY	CHECK	[-ING]	CLIENT	APPROVED
CLIENT							
ENGINEER				Process [-ING] GmbH Consultancy & Project Management Design, Engineering & Validation Project Campus Rheingau-Taunus Am Frauwald 5 65510 Idstein / Ts. (Germany)			
							
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PROJECT							
Process [-ING] Organizational Structure Marketing & Sales							
PROJECT NO.	SIZE	PAGE					
590TB1	A0: 119mm x 821mm	1/1					
TITLE				DRAWING NUMBER		INDEX	
[-ING] Policy & Guideline for Engineering Consultancy Grades				590TB1SKZ_ECGRD		A.0	
DRAWN BY - DATE		CHECKED BY - DATE		APPROVED BY - DATE			
Dipl.-Ing. Gels / 14.08.2018		Head of Process Engineering & Validation Head of Systems Design & Engineering Head of Project & Quality Management		Dipl.-Ing. Wühlhart			