

The professional profile of PhD-holders

Shahbaz Ali

Engineer specializing in automation, control, and electrical engineering

shahbaztalpur@yahoo.com

Core business

PHASE 1 Skill development

*Sets his professional goals to be ambitious yet realistic.
Identifies and develops means to enhance his employability throughout his career; manages his professional development.
Broadens and upgrades his skillset, personal qualities and achievements.
Uses his networks to expand his scope of competence.
Knows how to transfer his expertise to other fields of activity.
Realizes the necessarily international dimension of his career path.
Accepts input from a mentor or coach to benefit his professional development.*

PHASE 1 Evaluation

*Evaluates the value of various documents concerning his field of expertise.
Is able to judge his own results in terms of both quality and added value.
Is willing to expose ideas to a critical audience; takes others' opinions of his work into account.
Is willing to evaluate the work of other contributors and provides reasoned, realistic judgments of others' work.*

PHASE 1 Information management

*Knows how to review the state of the art (SOTA) in a scientific topic.
Makes efficient use of information-gathering methods, identifies pertinent resources, particularly bibliographic resources.
Masters web-based research (e.g., bibliographic databases, patent databases)
Knows how to judge the pertinence of information, critique sources and check source reliability.
Designs and implements information-gathering and management systems using suitable technology.
Addresses issues relating to the security and life cycle of data.
Seeks out support from experts in information and data management.*

PHASE 1 Expertise and methods

*Masters the basic knowledge and key concepts of his field and knows their history and their significance.
Is familiar with recent progress in his field.
Can view his research activities within an international context.
Is familiar with the investigative methods and techniques of his field (including mathematics and statistics) and can explain why they are appropriate for a given purpose.
Is able to consider alternative methods and techniques.*

Personal and relational qualities

*Is able to formulate problems and hypotheses according to needs.
Defends his research findings in a constructive manner; provides evidence to support his ideas and proposals.
Organizes his presentations in a clear, informative and concise manner.*

PHASE 2 Communication

*Adapts his register to communicate with experts in other fields at both the national and international levels.
Masters communication techniques for various contexts and media.
Communicates effectively when addressing a diverse and lay audience.
Knows how to address a community of professionals.
Educates and trains his staff in the use of digital communication technologies.
Is able to work and lead a group in at least English and one other world language.*

PHASE 1 Collaboration

*Develops and maintains cooperative networks.
Knows how to build a professional network for his own and the company's benefit.
Is considered an authority in his field of expertise.
Is able to envisage his work in a partnership framework; evaluates the benefits and limitations of a partnership and identifies shared and conflicting interests.*

PHASE 2 Analysis, synthesis and critical thinking

*Knows how to apply his analyzing and synthesizing abilities to new fields.
Takes ownership of new analytical methods.
Has a novel and independent way of thinking and makes significant contributions.
Questions "business-as-usual" scenarios in his activity.
Advises his staff to help them develop their own capacities of analysis and synthesis.
Stimulates critical thinking among his peers and his staff.*

PHASE 1 Open-mindedness and creativity

*Demonstrates an ability to acquire knowledge; shows flexibility and open-mindedness. Engages in interdisciplinary activities.
Possesses a constructive style of questioning and scientific doubt.
Develops, takes ownership of and tests new ideas; is clever; seizes opportunities.
Interacts with and seeks the collaboration of professionals of different cultures; knows how to accommodate cultural differences.*

PHASE 1 Commitment

*Recognizes and can clearly identify his sources of motivation.
Is able to sustain his commitment and motivation in the face of setbacks and adversity.
Deals efficiently with the routine aspects of his job.
Strives for excellence; shows determination.
Learns from his mistakes and bounces back from failures.
Relies on the support and assistance of his peers.*

PHASE 1 Integrity

Respects the standards and practices of his entity.

Business management and value creation

*Demonstrates integrity in the processing and dissemination of data.
Demonstrates integrity with respect to his partners' or competitors' contributions in accordance with intellectual property rules.
Upholds the confidentiality and anonymity of subjects taking part in studies and research.
Honors his commitments and ensures the congruence between actions and words.
Declares any conflict of interest.*

PHASE 2 Listening and empathy

*Knows how to engage in active listening in various situations.
Is careful to take his contacts' needs and frame of reference into account.
Expresses gratitude regularly.
Takes the needs of his staff into consideration, is sensitive to signs of stress and able to provide support and advice when needed.*

PHASE 2 Project management

*Is attentive to discontinuities, trends and weak signals; is prepared for the unexpected; identifies unforeseen opportunities in the project.
Recognizes good ideas and best practices, identifies weaknesses and gaps.
Considers and implements any necessary changes in objectives, organization, schedule, resources and quality requirements.
Knows how to drive his staff in compliance with scheduling and time constraints.
Utilizes a wide range of project management strategies; clarifies priorities and formalizes expectations.
Introduces quality systems.
Guides difficult, complex projects to successful completion; manages several projects simultaneously and efficiently; can intervene to conduct project audits and propose action plans to get projects back on track.
Provides support or assistance to his staff; takes over on projects that lack leadership.*

PHASE 1 Managing change

*Can adapt his approach and the project organization according to imperatives.
Adapts to changes and opportunities; knows how and where to find advice.*

PHASE 1 Managing risks

*Can determine the risks related to his project and the means for controlling them.
Is aware that technological and financial risks increase during the innovation process.
Understands the concept of corporate social responsibility.*

PHASE 1 Decision-making

*Knows how to make appropriate decisions for each phase of his project.
Assists his line management in making major decisions (e.g., reporting, scenarios)*

PHASE 1 Producing results

*Knows how to transform ideas into innovations.
Quickly deploys prototype and test phases; involves internal and external customers in these phases.
Learns the lessons of the initial tests.*

*Understands the policies and processes involved in publishing and exploiting research outcomes in his entity.
Is able to determine the most appropriate means of exploiting his results (e.g., patent, publication).*

Strategy and Leadership

PHASE 1 Strategy

*Is aware of how his project fits into the organization's strategy and the strategic directions of the sector or field of activity.
Understands relationships between entities and individuals (the role and drivers of each).
Is able to identify influent people that support his projects and understand what they stand to gain from it.*

PHASE 1 Leadership

*Exercises leadership in connection with a project of which he is in charge.
Knows how to be persuasive and enlist support for a project
.Mobilizes skills for a project of which he is not in charge; manages human resources even when people do not officially report to him.
Builds alliances.
Establishes relationships based on trust.*