



THE PAKISTAN ACADEMY OF ENGINEERING

Free Training Workshop on “Additive Manufacturing”

7th December, 2024, FAST - National University of Computer & Emerging Sciences, Shahrah-e- Faisal, Karachi.

Introduction and Background:

The Pakistan Academy of Engineering since inception is committed to add value in engineering community leading to the growth in the economy of Pakistan. PAE has arranged various workshops on critically important topics which are being neglected in Pakistan due to lack of commitment or resources or both. Knowledge management is one of the key areas which has been repetitively emphasized by our President Dr. – Ing. Jameel Ahmad Khan in symposia being held on regular basis by PAE. Knowledge has been a basis of competitive advantage of nations since known history but in this era of Big Data, 5G and Cloud Computing, knowledge management and creation has undoubtedly become a decisive factor. Even countries with small populations or inherent natural resources disadvantage are sustaining their competitive edge because of their knowledge base. Endowment of natural resources combined with knowledge base is of course a lethal combination to move forward in this era of enormous commercialization potential of knowledge base.

Whatever knowledge base we accumulate, we do not utilize it efficiently for better future planning. Availability of data and that too accurate in any area has become a major hurdle in our strategic planning and national development. Additive manufacturing is a rapidly emerging and disruptive technology that has significantly contributed to enhancing the competitive advantage of adopting nations. Pakistan Academy of Engineering has therefore decided to arrange a workshop on “Additive Manufacturing” for the engineering organizations and community. Our emphasis on focus on the engineering segment for economic growth is for a reason. In developed countries, 35 – 40 % of the GDP growth is because of growth and expansion in engineering area.

About Training:

Workshop Objectives

Major objective of this workshop is to impart knowledge and develop awareness of Additive Manufacturing. The workshop will focus on different AM techniques, materials (broad classification), salient applications and trends. The attendees will have an opportunity to understand and acquire knowledge of different AM solutions available. The target audience of this workshop include students, workers, and professionals who would like to benefit from Additive manufacturing techniques to facilitate the competitive advantage for their products.

About the Trainer

Syed Farrukh Jamal is a mechanical engineer with over 39 years of experience. He has held senior executive and management positions in various prominent organizations. Additionally, he served as a national short-term consultant for GIZ (Germany) and Sequa (Germany) for the TVET reform support program in Pakistan. He has a vast experience in Management, Organizational Systems, Technology Management, Skill Development & Technical Trainings, Product Development & Production, Business Development & Management

He has had the honor of working in prestigious and high-tech companies. Currently, he is the CEO of iCAT Transmission, an IR 4.0 consulting & sourcing firm, and a resource person at the Pakistan Academy of Engineering.

He has a consistent and unique record of developing teams, taking initiatives, and introducing new technologies like high-end CAD/CAM/CAE systems, 3D scanning, and 3D printing (Additive manufacturing), which have benefited many industries. His extensive and distinctive experience in industrial operations combined with IT is noteworthy.

As a result of a nationwide search, he was awarded the Rotary Foundation Scholarship for his master's degree. He earned his master's degree from Cranfield Institute of Technology, UK, in "CAD/CAM of Production Machines & Systems" in 1989-90. This advanced education made him a valuable professional in the state-of-the-art technology of CAD/CAM and IR 4.0, critical for design, engineering, and manufacturing.

Major Topics of the Workshop

- Introduction
- Subtractive vs Additive
- ISO/ASTM Seven categories of AM
- General steps
- Prominent AM technologies
- Applications
- AM advancements

Who Should Attend?

- Students who would like to explore this emerging area.
- Professionals who are keen to initiate work in this domain
- Knowledge Seekers who would like to gain knowledge on these emerging tools.

Registration

For further information and registration, please contact:

Mr. Aarsal Sohail - 0300-3667924

Mr. Mustafa Ahmed Sharief - 0345-3151932

Key Takeaways

- Fundamental Understanding
- Certificate

Free Workshop

- **This is a free workshop and only first 40 registrations will be accommodated.**

Morning Program

- 10:30 – 11:00: Attendance and Registration
- 11:00 – 11:05: Recitation from Holy Quran
- 11:05 – 13:00: Training Session
- 13:00 – 13:20: Feedback and Certificate Distribution
- 13:20 – 14:00: Refreshment

Important Note: The workshop is free for selected participants. It is requested that organization should nominate by first conducting appropriate training need assessment of the prospective candidate.

Refreshment: Complementary



This particular workshop is being conducted under PAE's constituent entity Institute for Technology Assessment and Transfer (ITAT).

The Basic objective of the ITAT is to conduct independent and objective analysis, and make an assessment of the potential of future technologies. It will also assess the consequences of introduction of new technologies. Timely attention and relevance to the country will be the over-riding considerations for the conduct of its business.

The Pakistan Academy of Engineering

Pakistan Academy of Engineering

The Pakistan Academy of Engineering – PAE was registered on December 20, 2013 at Karachi. PAE was established with the purpose to provide national forum for the discussion of engineering and technological issues currently being faced by the industries of Pakistan. PAE is endeavoring to promote the application of emerging technologies for the benefit of Pakistani nation. PAE provides independent advice on the issues of engineering and technology that addresses many questions of national and strategic importance. We are engaged more efficiently with the public and public policy process to promote strengthening and integration of academia, industry, government and society in the country. We firmly believe that creation of engineering culture in the country is the key source of developing sustainable competitive advantage. To pursue our strategy we regularly conduct studies, symposia and workshops in Pakistan and have got recognition from eminent professionals all over the world.

The Pakistan Academy of Engineering is a member The International Council of Academies of Engineering and Technological Sciences, Inc. – CAETS, USA.

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