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ASTM INTERNATIONAL CONFERENCE ON ADVANCED MANUFACTURING

Research to Application through Standardization

October 30 – November 3, 2023 | Washington D.C.

Submit an Abstract at www.amcoe.org/icam2023

Application of AM in Energy, Maritime, and Oil & Gas

Additive manufacturing (AM) technology has gained considerable popularity in the Energy, Maritime, and Oil & Gas (EMOG) industries to move beyond prototyping and into production parts for specific applications and requirements. In comparison to the aerospace, automotive, and medical industries, the adoption of AM in the EMOG industries has been moderate and is still very nascent. However, these sectors are aggressively exploring the potential of using AM to improve supply chain lead-time, performance, and operational efficiency. These industries face some unique challenges that other, more AM advanced industries, do not encounter. Many stakeholders have already demonstrated the capabilities of using AM to produce high-performance components, which has triggered increased interest within these industries.

Topics of interest include but are not limited to:

- Specific operational requirements, with an emphasis on corrosion resistance (NACE Compliance), wear resistance, and fatigue performance
- AM compliance (or lack of) with O&G Industry Product Specifications opportunities and challenges to AM adoption
- Development of next-generation AM materials for Hydrogen, Energy and other novel applications
- Materials development, testing for AM materials, and part qualification
- AM modalities (non LPBF focused), Large part production

- Automated workflows, and inventory digitization and management
- Design for Additive, Process simulation (Generative Design, latticing & topology optimization)
- In-situ monitoring and process control, Post-processing, NDE, and Inspection
- Standardization, Qualification, Regulatory Certification, IP rights and warranty issues
- Sustainability with AM
- On-site, flexible AM cells for local spare parts and repair



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Symposium Organizers

- Hakan Brodin, Siemens Energy, Sweden

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- Carlo De Bernardi, ConocoPhillips, USA
- Matt Sanders, Stress Engineering, USA
- Valeria Tirelli, AIDRO, Italy
- Isabella van Rooyen, Pacific Northwest National Laboratory (PNNL), USA
- Mostafa Yakout, University of Alberta, Canada

