FUSION FOR ENERGY

TECHNOLOGY OFFER

Engineering and Structural Analysis for High-Radiation Environments

Thanks to its collaboration with Fusion for Energy (F4E), Active Space Technologies (AST) has developed comprehensive engineering solutions for challenging environments, such as the ITER reactor.

The technology

The extensive expertise gained by AST through its collaboration with F4E has enabled the company to offer specialized services in engineering, manufacturing, and structural analysis for systems operating in high-radiation environments. These capabilities include:

- Advanced simulation of structural and electromagnetic behavior using cutting-edge tools like MSC Nastran / Patran.
- Design and optimization of components to withstand intense electromagnetic and thermal loads.
- Tailored manufacturing processes for complex assemblies requiring precision and durability under extreme conditions.

Advantages and Potential Applications

The capabilities developed through this expertise enable:

- Efficiency in Complex Simulations: Rapid and accurate modeling of structural and electromagnetic interactions in critical systems.
- Customization for Industry Needs: Flexibility to design and adapt components to meet specific requirements across various sectors, ensuring compliance with rigorous safety and operational standards.
- Broader Applicability: Suitable for industries such as fusion, nuclear energy, aerospace, and advanced manufacturing where resilience and precision are paramount.

Collaboration opportunities

AST offers its capabilities to organizations working in high-radiation or high-stress environments, such as fusion, nuclear energy, or aerospace industries. With a combination of structural analysis, design optimization, and tailored manufacturing processes, AST is well-positioned to work on projects requiring innovative solutions to complex technical challenges

Fusion for Energy Technology Transfer Programme

Email: technologytransfer@f4e.europa.eu