

NIMS Selects Ansys' Materials Solution to Advance More Sustainable Next-Gen Jet Engines

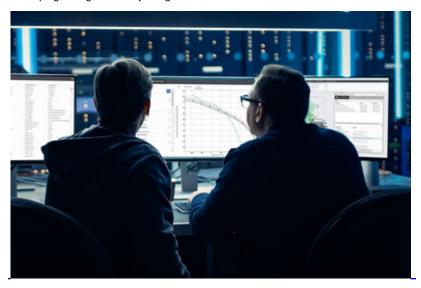
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Japan's sole public research organization adopts Ansys' materials data management solution to develop an eco-friendly materials catalog for efficient aircraft engine development

/ Key Highlights

- NIMS is using Ansys' materials solution, Granta MI, to analyze and select heat-resistant materials to improve both energy and thermal efficiency in aircraft engines and reduce CO₂ emissions
- Ansys' materials data management software is the fundamental infrastructure of NIMS' database for new materials development, information, and applications

PITTSBURGH, June 15, 2023 /PRNewswire/ -- National Institute for Materials Science (NIMS), Japan, is using <u>Ansys'</u> (NASDAQ: ANSS) materials data management software, <u>Ansys® Granta MITM</u>, to develop a database of sustainable materials for Japanese aircraft manufacturers. The database, a catalog of eco-friendly materials intelligence, will make it easier for Japanese engineers and designers to select cleaner, smarter resources when developing next-generation jet engines.



As climate concerns continue to increase globally, many leaders in the aviation industry have vowed to reach net-zero carbon dioxide (CO₂) emissions by 2050. To support this initiative, NIMS uses Ansys' materials solution to research heat-resistant materials that improve energy and thermal efficiency, and reduce CO₂ emissions. Using this data, NIMS will create a catalog in collaboration with the Gas Turbine Society of Japan to provide local aircraft manufacturers with a one-stop, domestic database for sustainable materials. The database will also reduce the time and cost of international compliance and clearance for new materials usage.

"With the ability to obtain and verify critical materials data using Ansys' solution, NIMS has started to develop a valuable database for Japanese manufacturers to integrate more sustainability components in local aircraft engine development," said Dr. Kyoko Kawagishi, group leader of the High Temperature Materials Group at NIMS. "This initiative is based on results obtained from a national project, 'Development of Materials for Aircraft Engines and Bases for Material Evaluation Systems,' commissioned by the New Energy and Industrial Technology Development Organization (NEDO). We will support the manufacturing of highly reliable, purely domestic engine components and strengthen our position in the international market for aircraft engine production."

The NIMS' database will be built upon insights from Granta MI, which also provides comprehensive and comparable data for more than 4,000 commercially available engineering materials. Materials data includes detailed information on metals, polymers, composites, and coatings as well as electromagnetic, medical, and aerospace materials.

"As the aviation industry accelerates toward net-zero, companies are exploring new solutions to meet sustainability goals," said Walt Hearn, senior vice president of worldwide sales and customer excellence at Ansys. "With the support of Ansys' materials solution, NIMS is streamlining the process of materials selection for Japanese aircraft manufacturers, while facilitating access to smarter and cleaner materials. These positive strides bring us all closer to a more sustainable future."

Visit Ansys at the 2023 Paris Air Show in France from June 19-25 to learn more about simulation's impact in the aviation industry.

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