

Scientific Lecture

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Department of Aerospace Engineering

سخنرانی علمی

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دانشکده مهندسی هوافضا

K. N. Toosi University of Technology

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آزمایشگاه تحقیقاتی سازه‌های پیشرفته، با حمایت معاونت بین‌الملل دانشگاه و دانشکده مهندسی هوافضا، سخنرانی‌های علمی با حضور اساتیدی از دانشگاه پلی‌تکنیک میلان (ایتالیا) برگزار می‌کند. از عموم علاقه‌مندان برای شرکت در این جلسات دعوت به عمل می‌آید.

Cold Spray as an Additive Manufacturing Process

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Abstract:

Cold spray is a technological process based on kinetic rather than thermal energy.

While it has been used as a coating technique so far, cold spray is a candidate as additive manufacturing technology for producing 3D free standing parts instead of thermal processes like selective laser melting (SLM).

In this lecture, after an introduction of cold spray and its main aspects, the application of cold spray in AM is critically discussed.

In the second part of the presentation the result of a series of tests aimed at characterizing the properties of specimens obtained with cold spray are presented and compared with the ones obtained with SLM technology.

Possible post-treatments aimed at improving the mechanical behavior of the cold sprayed parts are also proposed and discussed.