


Fiche developed in the frame of 	TYPE:		AREA:
	Conference	Training	Robotics, autonomous systems, artificial intelligence
	European, national, regional project	University course Postgraduate studies	C4ISTAR: command, control, communications, computers, information/intelligence, surveillance
	Policy	Journal	Cybersecurity
Title:			
CIRP ICME '21 - 15th CIRP Conference on INTELLIGENT COMPUTATION IN MANUFACTURING ENGINEERING Innovative and Cognitive Production Technology and Systems			
Description	<p>The 15th edition of the CIRP ICME Conference will examine the applications of innovative and cognitive production technologies and systems and related methodologies for decision making implementation, including expert systems, fuzzy logic, neural networks, multi agents, etc., as well as hybrid systems combining one or more of these techniques as applied to manufacturing engineering problems.</p> <p>The main scope of the Conference is to provide an international forum for the exchange of the knowledge, information, experience and results as well as the review of progress and discussion on the state-of-the-art and future trends in intelligent computation methods and tools applied to manufacturing processes and systems.</p> <p>The following Symposia/Special Sessions will be organized within the Conference with reference to running joint research projects and international working groups:</p> <ul style="list-style-type: none"> - International Workshop on Emergent Synthesis - IWES 2021 - Biological Transformation in Manufacturing - Fraunhofer Joint Laboratory of Excellence on Advanced Production Technology - Fh-J_LEAPT UniNaples 		
Organizer	Fraunhofer Joint Laboratory of Excellence on Advanced Production Technology (Fh-J_LEAPT UniNaples), Dept. of Chemical, Materials and Industrial Production Engineering, University of Naples Federico II		
Topics	<ul style="list-style-type: none"> • Material working processes <ul style="list-style-type: none"> - machining - forming - casting and solidification - welding - heat treatments • Metrology and measuring methods <ul style="list-style-type: none"> - dimensional measurements - surface characterisation - non-destructive evaluation - metrology systems and CMM 		

	<ul style="list-style-type: none"> • Process modeling and monitoring • Design, simulation and modeling • Hybrid processes • Reverse engineering • Additive Manufacturing • Assembly and disassembly • Diagnostics and maintenance • Automated inspection and quality control • Sensors and sensing techniques for manufacturing • Process/Production planning and control • Dynamic scheduling in complex mftg. • Distributed and co-operative production • Bio-inspired, bio-integrated, bio-intelligent manufact. • Customer driven production • Intelligent machines and robots • Intelligent manufacturing systems • Zero defect manufacturing • Factory design, reconfigurability and integration • Augmented and virtual reality for manufacturing • Product life cycle management • Energy and resource efficient manufacturing • Green and sustainable manufacturing • Human factors in intelligent manufacturing systems • Manufacturing applications of: <ul style="list-style-type: none"> - expert systems - artificial neural networks - fuzzy and neuro-fuzzy models - genetic algorithms - machine and deep learning - multi agent systems - evolutionary & emergent computing - hybrid approaches • Any other topic related to the Conference's scope
Date	14 - 16.07.2021
Costs	
www	http://www.icme.unina.it/ICME%2021/ICME_20.htm

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