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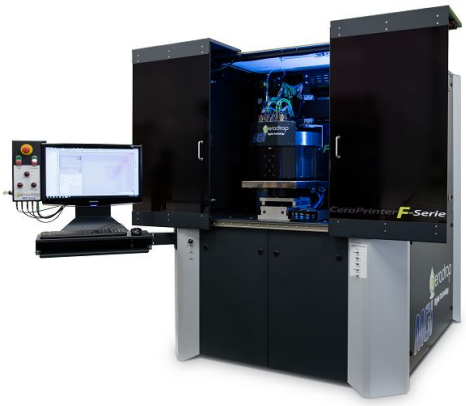
Groundbreaking R&D for Real-life Applications by CeraPrinter at MSS-NDE Labs !



"CERADROP, a MGI Group company, is proud to announce the acquisition of the CeraPrinter F-Serie Platform by the Mechanics, Smart Sensors & Nondestructive Evaluation (MSS-NDE) Laboratory at The UNIVERSITY OF IOANNINA, GREECE. The MSS-NDE Lab is one of the most prominent units working in the field of advanced materials for emerging real-world applications, in a range of industrial fields, such as health and food sectors, among others.

MGI-CERADROP has provided such a dynamic Laboratory with its cutting-edge equipment for applied research and development of the most advanced high-performance Smart Sensing Systems, which is going to be applied in the industrial applications for security and data protection purposes.

MGI-CERADROP team's expertise is focused on design and manufacturing of innovative solutions for Printed Electronics and Smart 3D Printing. MGI-CERADROP is pleased to provide CeraPrinter F-Serie - one of the universal equipment for Printed Electronics. The great number of installations were realized all over the world offering the users highly flexible digital printing capabilities permitting to overcome the challenges in complex functional devices design and printing.

The MSS-NDE Laboratory team has our sincere gratitude for their confidence in the CeraPrinter F-Serie solution, which will significantly speed up their research and development. We are delighted that this collaboration will enable us to develop a close-knit and broad relationship in the future."

"We have chosen the Advanced Hybrid Digital CeraPrinter Modular-Based Platform since it can produce highly accurate patterns at high resolution, with a very low level of defects, on a wide range of materials, including temperature-sensitive substrates.

The system will be used for developing innovative biosensors, offering high added value to a variety of industrial sectors:

- In agri-food packaging, to monitor the freshness and safety of food products during storage and transportation and track their location during transportation, ensuring that they are being handled and stored safely.
- In environmental monitoring, to detect the presence of harmful chemicals and biological agents and alert authorities.
- In medical packaging, combining temperature sensing with RFID technology, allowing for detailed information on storage history of sensitive medicines, helping to ensure their safety and efficacy.

In comparison with other offers in the market, the Hybrid CERADROP Platform offers important advantages. It can print 3D multi-level, multi-material and multi-layered structures, using low viscosity inks, which allows for a wider range of materials to be printed, including those that are difficult to print using traditional inkjet methods. Also, large areas can be printed at high speed, making it suitable for mass production and large-scale printing applications."

Prof. Theodore Matikas
Director, MSS-NDE Lab.
Vice-Rector for Research
University of Ioannina

CERADROP, A MGI GROUP COMPANY

The MGI Group is composed of MGI Digital Technology, headquartered in Fresnes, France, CERADROP, located in Limoges, France and KÖRA-PACKMAT, located in Villingendorf, Germany. Founded in 1982, MGI Digital Technology designs, manufactures and markets a full and innovative range of award-winning digital presses and a complete line of versatile finishing solutions.

CERADROP designs and markets Materials Deposition Digital Printers exclusively for Printed Electronics Industry and Smart 3D Printing. Thanks to its modular-based scalable concept, CeraPrinter Series models present new opportunities for feasibility study and launch of new products into the Printed Electronics market. Combining several materials deposition technologies as well as the latest generation of curing modules, this equipment line permits to reach a wide range of application fields such as: membrane switch, antennas, sensors, passive components, interconnection, flexible solar cells (OPV), OLED and many others.

As the subsidiary of MGI Group focused on Printed Electronics and Smart 3D Printing, CERADROP can call up more than 60 engineers specialized in inkjet engine, mechanics, automation, software, chemistry, and ink management to supply the best materials deposition digital printing solution from advanced R&D up to 24/7 high performance manufacturing.

THE MECHANICS, SMART SENSORS AND NDE LAB, UNIVERSITY OF IOANNINA

The MSS-NDE Laboratory aims excellence in education, interdisciplinary research, business innovation, and technology development in mechanics, advanced sensing technologies, nondestructive evaluation (NDE) and structural health monitoring (SHM) of engineering materials and components.

The MSS-NDE laboratory emphasizes excellence in research by leveraging the benefits of its state-of-the-art facilities to advance the frontiers of knowledge in science and engineering, and support faculty, research scientists, and students in conducting several collaborative research projects at the national, European and international levels.

The MSS-NDE laboratory is pioneering the development of:

- 3D flexural electronics, including hybrid-printed wireless sensors for smart packaging, agri-food safety, environmental monitoring, and healthcare and security applications;
- Advanced NDE and SHM methodologies for the characterization of aging processes and the quantification of damage and life prediction of engineering materials, structures and systems under complex loading conditions for aerospace, nuclear, civil engineering, cultural heritage, and biomedical engineering applications;
- Novel hybrid and nanostructured materials and coatings, smart composites, multifunctional materials and devices with self-diagnosis, self-healing, energy storage/harvesting capability, including phononic metamaterials.
- 3D documentation and sustainable preservation activities of cultural heritage materials, monuments and complexes, including using virtual, augmented and mixed reality technologies.

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