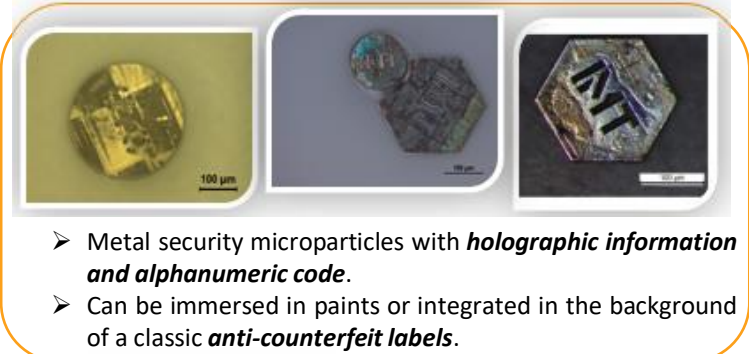
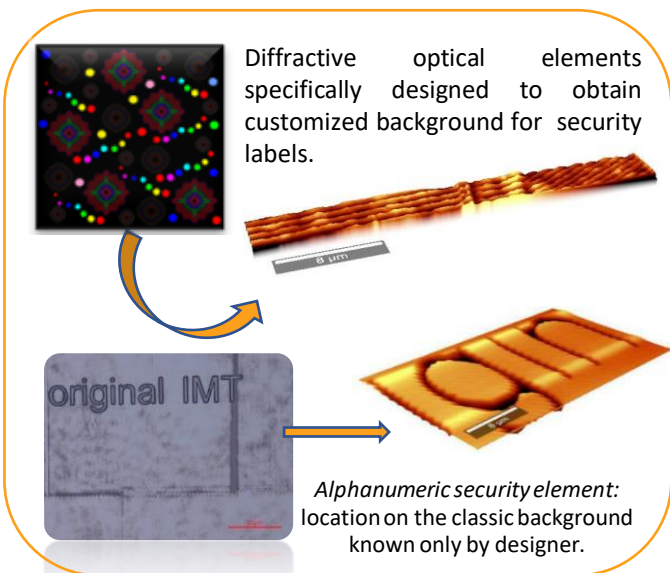


FIT-4-NMP Networking and Brokerage Event

organized by FIT-4-NMP H2020 project at the 45th International Semiconductor Conference - CAS 2022

Combined technologies for the development of new generation smart anti-counterfeit tags



Short description of Laboratory:

- **Mission: Research, development and education in micro and nanophotonics**
- **Research domains:**
 - **Modelling, simulation and CAD of micro and nano-photonic structures** (Optoelectronic devices and photonic integrated circuits; Plasmonics; Micro-optics and diffractive optical elements; OMEMS).
 - **Optical and electrical characterization of materials and devices:**

New materials for micro-nanophotonics (hybrid nano-composites with controlled optical properties, transparent semiconducting oxides, Graphene, quantum dots) **and new processes and devices.**

Micro-nano photonics components (photodetectors, photonic integrated circuits, metasurfaces, plasmonic structures, DOE, optical components); **Organic optoelectronics** (devices based on graphene-polymer nanocomposites) **and quantum technologies.**

• Applications:

- * **Optical sensors** (gas sensors based on composite nanomaterials/metasurfaces, fluorescent biosensors) *
- Security elements for anti-counterfeit protection and logistic monitoring** (holographic labels with extra security nanoelements, RFID elements and temperature sensor); *
- Free space optical communications**, *
- Beam shaping.**

Organisation: Laboratory of Micro/Nano photonics, National Institute for R&D Bucharest, Country Romania

Address: 126A, Erou Iancu Nicolae Street, 077190, Voluntari, Ilfov, ROMANIA

Contact details:

Name: Dr. Dana Cristea

Email: dana.cristea@imt.ro

Topic of interest: new generation security labels, new materials for micro-nanophotonics, new processes and devices; micro-nano photonics components for various applications

Potential contribution: design, modeling, simulation, fabrication, characterization of photonic and optical components

