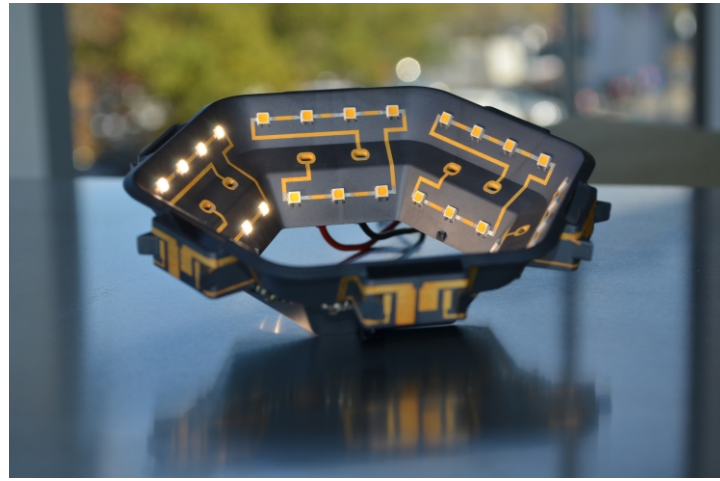


MID Summit & MID Workshop

21st – 22nd September 2022

Böblingen (near Stuttgart), Germany



Welcome

MID Summit & MID Workshop 2022 as joint event of Hahn-Schickard and 3-D MID e.V.

Hahn-Schickard and the Research Association 3-D MID e. V. will combine the events "MID Summit" and "MID Workshop" this year as a joint industry get-together on September 21st and 22nd in Böblingen (Stuttgart region).

We offer two intensive days around the MID topic with expert presentations from industry and research with many application examples, poster session, trade exhibition and plenty of time for exchange and networking.

In recent years, MID technology has evolved. This is reflected in the change of the name MID from Molded Interconnect Devices to Mechatronic Integrated Devices. New materials and processes have expanded the range of applications and possible functionalization of 3D circuit carriers. Additive manufacturing processes, for example, are opening up new routes for the rapid realization of prototypes and the individualization of products.



Technical Presentations



Poster Sessions



Trade Exhibition

MID Summit & MID Workshop

21st – 22nd September 2022

Böblingen (near Stuttgart), Germany



Program

Wednesday, 21st September

9:30 AM Welcome by Ministerial Council Claus Mayer
Opening by Prof. André Zimmermann, Hahn-Schickard and Prof. Jörg Franke, 3-D MID e.V.

MID Applications

- 10:00 AM New Applications
Thomas Hess, HARTING AG
- 10:30 AM Si-Wafer Replacement and MID LDS Transformer
Dr. Sebastian Bengsch, Ensinger
- 11:00 AM Metalized-plastic Technology Enabling 3D Millimeter-wave Components
Prof. Jan Hesselbarth, Uni Stuttgart - IHF
- 11:30 AM Advantages of 3D Circuit Design in an ECAD Tool
Christian Röck, Altium

12:00 PM Networking, Exhibition and Poster Session of Current Research Projects with Light Snacks

New Materials and Technologies

- 1:00 PM Metallization of Oxide Ceramic Substrates via Laserinduced Direct Metallization
Philipp Ninz, Uni Stuttgart - IFKB
- 1:30 PM Evaluation of Printed Strain Gauges on 2.5D Substrates
Felix Häußler,
FAU Erlangen-Nürnberg - FAPS
- 2:00 PM 3D Printed Chip Packaging
Dr. Ashok Sridhar, TNO Holst Centre
- 2:30 PM Contacting Inkjet-Printed Silver Structures and SMD
Jonas Jäger, Hahn-Schickard

3:00 PM Networking, Exhibition and Poster Session of Current Research Projects

4:00 PM General Meeting 3-D MID e.V. alternatively
Excursion to Hahn-Schickard - Focus on „Digital Process Chain for Individualized Microsystems“

7:00 PM Evening Event in the Courtyard with Food Truck

Thursday, 22nd September

9:00 AM Smarter Surfaces for a Smarter Future
Markus Thamm, Salcon International

9:30 AM Networking, Exhibition and Poster Session of Current Research Projects

Additive Manufacturing Processes

- 10:00 AM Retrofit Sensor Technology
Peter Peetz, IMS Connector Systems
- 10:30 AM Rapid Prototyping of MID by Stereolithographic Printing
Dr. Hendrik Mohrmann, Contag
- 11:00 AM Functionalized Otoplastic (MikroBO)
Hartmut Richter, Audifon
- 11:30 AM Pad printing electronics – enabling the future of 3D connected surfaces
Aad van der Spuij, Henkel

12:00 PM Networking, Exhibition and Poster Session of Current Research Projects with Light Snacks

- 1:00 PM Workshops MID & Beyond
- New Research Areas
 - Printed Hybrid Electronics
 - Sustainability
 - Market Research
 - Solution approaches - thermal resistance vs. reliability

3:00 PM Networking, Exhibition and Poster Session of Current Research Projects

3:30 PM Presentation of the Results from the Workshops

4:00 PM Final Lecture and Farewell
Prof. André Zimmermann, Hahn-Schickard and Prof. Jörg Franke, 3-D MID e.V.

Posters

NiMm3 - Nickel-free metallization systems on 3D MID substrate materials - (FAPS, Hahn-Schickard)

DigiTime - Digital printing of conductive inks using inkjet for miniaturization of electronic assemblies - (FAPS)

PrESens - Additive manufacturing for the integration of sensor technology into mechatronic systems - (FAPS, TH Nürnberg)

3D-MosquitOPrint - 3D optical conductors on functional surfaces using the Mosquito method - (ITA)

3D-MLD - 3D multilayer printing from Mechatronic Integrated Devices - (ITA)

AMDEA - Additive manufacturing of dielectric elastomers for industrial use - (FAPS)

MikSin - Sintering of printed conductive structures by energy input using microwave irradiation - (TH Wildau, Fraunhofer IAP, FAPS)

SIMONE - Characterization methods for determining the sintering properties of printed inks containing micro- and nanoparticles and their influence on the homogeneity of conductivity and reliability - (LHFT, FAPS)

MiniHelix - Miniaturization of helix antennas for HF applications by MID manufacturing process - (LHFT, FAPS)

PrInterfaces - Technologies for high quality contacting of printed structures for level-3 interconnections between electronic assemblies - (TH Nuernberg, FAU FAPS)

INFINITE - Integrative functional expansion in electrical engineering for the automated production of intelligent insulation systems - (LKT, FAPS)

AddiHF - Additive manufacturing of antennas by processing of high frequency plastics - (LKT, LHFT)

Superbat - Printed Supercaps and Batteries (Supercapatteries) for Smart Energy Storage Systems - (pmUTC, TUD, Sakarya University)

INSEL - Inductive inline sintering for electrical printed conductive structures with a process control system - (Fraunhofer IWU, TUC)

MID Summit & MID Workshop

21st – 22nd September 2022

Böblingen (near Stuttgart), Germany



Exhibitors

Henkel Electronics Materials



Powerlyze



Test- & Prüflabor
für elektronische Baugruppen

Uni Stuttgart - IFKB



Senin Corporation



Neotech AMT



Fraunhofer IEM



Micro Epsilon



Ensinger



Sunway Communication



Hahn-Schickard & 3-D MID



CPST



KNOWARE



IMS Connector Systems



2E mechatronic

