

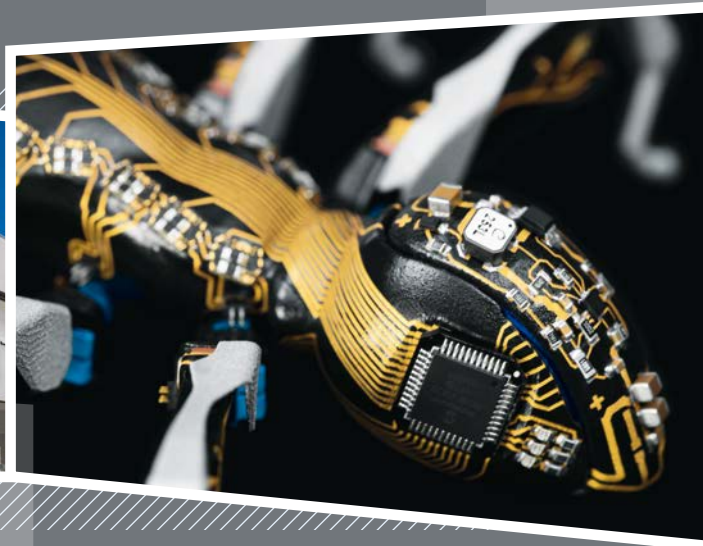
COLLOQUIUM

PLASTRONICS & 3D-MID TECHNOLOGIES OPEN UP NEW DIMENSIONS

MARCH 8 & 9, 2017

Grenoble INP-Pagora / LGP2 - Domaine universitaire

461, rue de la Papeterie - 38400 Saint-Martin-d'Hères (France)



SFIP, Société Française des Ingénieurs des Plastiques, organizes on March 8 and 9, 2017 its first colloquium devoted to plastronics and 3D-MID technologies with the support of **Chair MINT** - Grenoble INP Foundation.

At the crossroads of materials, plastics and electronics, this emerging discipline will revolutionize our modes of conception and requires the development of new skills. It opens up new dimensions and perspectives on miniaturization, integration and connectivity of our products of tomorrow.

During this colloquium, industry professionals, laboratories and academic researchers will meet and share their knowledge and experience regarding: materials, processes, economic, social and environmental aspects related to plastronics & 3D-MID technologies.

Scientific Committee

Michel Cabrera, INSA Lyon, Laboratoire Ampère

Gaël Depres, Arjowiggins

Georges Hadziioannou, Université de Bordeaux, LCPO

Jean-Marie Maldjian, Schneider Electric

Maël Moguedet, S2P

Didier Muller, Sintex NP

Nathalie Pécoult, Groupe SEB

Nadège Reverdy-Bruas, LGP2 – Chaire MINT

Cécile Venet, Schneider Electric

Contact

Chantal Sohm, SFIP – Tel. +33 1 46 53 10 74

PROGRAMME - Wednesday March 8, 2017

08:15 WELCOME AND ATTENDEES REGISTRATION

08:45 **Welcome opening by SFIP and Chair MINT – Grenoble INP Foundation**

Opening conferences:

09:10 **When electronics fits shapes: Introduction to 3D-MID / Plastronics field and panorama of applications**
Maël MOGUEDET, S2P

09:30 **Surfaces phenomena and adhesion challenges in plastronics devices**
Naceur BELGACEM, Grenoble INP-Pagora

Session 1 PROCESSES ADDITIVES

Chairmen: Naceur BELGACEM, Grenoble INP-Pagora and Gaël DEPRES, Arjowiggins

10:00 **Microcontact printing as a tool for 3D Molded Interconnect Devices**
Vincent SEMET, INSA Lyon - AMPERE

10:30 **How could inkjet printing technologies contribute to the rise of plastic electronics field?**
Christophe MERCIER, ARDEJE

11:00 COFFEE BREAK

11:30 **3D printed electronics via print driven process chains**
Martin HEDGES, NEOTECH AMT GmbH*

12:00 **High resolution 3DMID with aerosol jet printing**
Laurent SERONVEAUX, SIRRIS

12:30 **Printing processes applied to plastronics**
Fanny TRICOT, Chair MINT - LGP2

13:00 LUNCH IN ROOM D8 OF GRENOBLE INP-PAGORA

Session 2 PROCESSES IN-MOLD ELECTRONICS

Chairwomen: Nadège REVERDY-BRUAS, LGP2 – Chair MINT and Nathalie PECOUL, groupe SEB

14:30 **Easily connect plastic pieces using SMARTCORE®**
Frédéric KERN, Arjowiggins Creative Papers

15:00 **Functional Ink Systems for “In Mould Electronics”**
Giulio CECCHETELLI and Vincent ARANCIO, DuPont de Nemours*

15:30 **In Mould Electronics (IME): some recent developments**
Olivier DASSONVILLE, SINTEX NP

16:00 **Smart surfaces with strong 3D design**
Philippe WEISSEL, Plastic Electronic GmbH*

16:30 **Printed electronics at CEA & integration in plastic objects**
Romain COPPARD, CEA LITEN

17:00 END OF THE FIRST DAY CONFERENCES

18:25 **Exhibitions Visit at Musée de l'Ancien Evêché - 2, rue Très-Cloîtres - Grenoble**

20:00 **DINNER at restaurant “le 5” (restaurant of Grenoble Museum) - 5, place de Lavalette - Grenoble**

22:30 **End of dinner**

PROGRAMME - Thursday March 9, 2017

Opening session

08:30

The plastronics sphere of influence in the Plastic Valley: a national ambition
Patrick VUILLERMOZ, Plastipolis, and Claude DOCHE, CCHB

09:00

Training in plastronics and 3D-MID devices; educational and scientific platform
Philippe LOMBARD, UCBL Lyon 1 – AMPERE, and Jean-Yves CHARMEAU, INSA Lyon - IMP

Session 3 MATERIALS AND DURABILITY

Chairmen: Michel CABRERA, INSA Lyon – Ampère, and Didier MULLER, SINTEX NP

09:30

LPKF-LDS process: study of the metal/polymer interface mechanisms and adhesion optimization
Marc KAUFFMANN, IPC / INSA Lyon - IMP

10:00

Protecting sensitive electronics from condensation with active molded polymers
Cédric BOURGEOIS, CSP Technologies

10:30

COFFEE BREAK

Session 4 APPLICATIONS

Chairmen: Maël MOGUEDET, S2P, and Cécile VENET, Schneider Electric

11:00

From touch to gesture functions – PolyTC Transparent and flexible sensors
David VALLERE, KURZ France / POLYIC*

11:30

Inkjet printing of electroactive material for mechatronics applications
Pierre-Jean COTTINET, INSA Lyon - LGEF

12:00

3D inductif proximity sensor: example of plastronic device using the third dimension
Sergkei KAMOTESOV, S2P and INSA Lyon - AMPERE

12:30

LUNCH IN ROOM D8 OF GRENOBLE INP-PAGORA

14:00

Smart composites: stakes & examples
Mathieu SCHWANDER, IPC

14:30

New designs of RF and Microwave Components and Antennas based on additive technologies
Yves QUERE, Université de Bretagne Ouest - Lab-STICC

15:00

Integration of antennas and electronic components in modern wireless communication and sensor devices by 3D-LDS MID technology
Bernd GECK, Institute of Microwave and Wireless Systems, Leibniz University of Hannover*

15:30

Potential of MID technology to design MRI coil for medical diagnosis and research
Simon LAMBERT, INSA Lyon - CREATIS

16:00

3D-MID technologies and microsystems on plastics: from microwave components for communication to MEMS packaging
Lionel TENCHINE, IPC

16:30

Conclusion by the organisers

16:45

End of the colloquium

→ No simultaneous translation

* During the colloquium, the slides will be in English and the speeches will be in French, except for five speakers.

GENERAL INFORMATION



Colloquium venue

Grenoble INP-Pagora - Domaine universitaire

461, rue de la Papeterie
38400 Saint-Martin-d'Hères (France)

25 minutes from the Grenoble Railway Station by tramway B,
Stop Bibliothèques Universitaires, then 7 minutes walking
(When you get off the tram, go direction back of the tram)

Access from the Tram Stop:

<http://www.univ-grenoble-alpes.fr/fr/acces-direct/plans-d-acces/>

Access

Train

- **Grenoble Railway Station (SNCF)**

At your arrival: taxis or tramway Line B

Car

- **GPS (indicate GIERES in the address):**

461 rue de la Papeterie - 38610 Gières

Take bypass (Rocade Sud), and Exit 1

"Gières-Mayencin Domaine Universitaire"

Then follow direction "Domaine Universitaire"

Tramway

- **Tramway line B** – Direction Gières-Plaine des Sports
- **Tramway line C** – Direction Condillac-Universités

For both lines, stop **Bibliothèques universitaires**,
then 7 minutes walking

Airports

- **Lyon Saint-Exupéry** – 100 km from Grenoble
(easier way to reach Grenoble)
- **Genève** – 200 km from de Grenoble
- **Grenoble Isère (local airport)** – 45 km from Grenoble
(one hour drive)

HOTELS Grenoble

Hôtel Park Hôtel McGallery By Sofitel****

(Tram line C)

10 place Paul Mistral – Tel. +33 476858123

resa@park-hotel-grenoble.fr

www.park-hotel-grenoble.fr

Le Grand Hôtel****

(town center - Tram B)

5, rue de la République – Tel. +33 476512259

contact@grand-hotel-grenoble.fr

www.grand-hotel-grenoble.fr

Preferential rates depending on availabilities. Specify "Colloque SFIP"

Okko Hotel Grenoble Jardin Hoche****

(500 m walking: Tram B)

23 rue Hoche Tel. +33 485190010

www.okkohotels.com/hotels/grenoble

Royal Hôtel*** (close to Railway Station - Tram B)

2, rue Gabriel Pieri – Tel. +33 476461892

info@royalhotelgrenoble.com

www.royalhotelgrenoble.com

Hôtel Suisse et Bordeaux**

(close to Railway Station - Tram B)

6, place de la Gare – Tel. +33 476475587

info@hotel-sb-grenoble.com

www.hotel-sb-grenoble.com

Preferential rates depending on availabilities. Specify "Colloque SFIP"

On the campus:

Comfort Suites Universités Grenoble Est***

(close to Tram C)

46, avenue Gabriel Peri – 38400 Saint-Martin D'Hères

Tel. +33 438381700

www.comfortsuites-grenoble.fr

Please see as well: <http://www.grenoble-tourisme.com/fr/ou-dormir/>

you will find all the information about hotels Ibis, Novotel, Mercure of Grenoble Centre and other.

GENERAL INFORMATION

Exhibition and sponsoring

Exhibition

An exhibition will take place during both days. If you wish to book some space, please contact Chantal Sohm.

Sponsoring

You can be sponsor of this event and increase contacts with experts.

Different sponsoring formulas are proposed, that can be adapted to your needs and budget.

Contact: Chantal Sohm - Tel + 33 1 46 53 10 74 – E-mail: chantal.sohm@sfp-plastic.org

Museum visit and dinner on wednesday march 8, 2017

Exhibitions visits at 18:25

We propose you a moment of escape in the history or in the mountain through the comic strip at:

Musée de l'Ancien Evêché

2, rue Très-Cloîtres - 38000 Grenoble

www.ancien-eveche-isere.fr

Please select one exhibition and mention it in the registration form:

- ☐ **Le Baptistère de Grenoble**
(Archaeological crypt and the baptistry of Grenoble / 4th - 10th century),
permanent collection
- ☐ **L'Isère en histoire**
(Prehistory > 20th century)
permanent collection
- ☐ **Pic & Bulle**
(The mountain in the comic strip - 102 original boards),
temporary exhibition

Access

Tramway:

Line B, stop Notre-Dame Musée

Car:

Parking "Musée de Grenoble"
(near the Musée de l'ancien Evêché)

Access vehicles:

50, avenue Maréchal Randon - 38000 Grenoble
or quai Jonking

Car parking open 24/24 and 7/7

For more information:

<http://www.vincipark.com>



**Dinner at 20:00 at the restaurant of Grenoble Museum
(2 minutes walking from the Musée de l'ancien Evêché):**

Restaurant le 5

(restaurant of Grenoble Museum)

5, place de Lavalette • 38000 Grenoble

Tel. +33 4 76 63 22 12

Tramway: Line B, stop Notre-Dame Musée

Car: parking "Musée de Grenoble"

REGISTRATION FORM

Plastronics & 3D-MID technologies open up new dimensions

Ref:
Colloquium
03 2017

PLEASE COMPLETE AND RETURN THIS FORM TO:

SFIP - Le Diamant A - F-92909 PARIS LA DEFENSE CEDEX - France / Tel: +33 1 46 53 10 74 - Fax: +33 1 46 53 10 73

Register directly on line if payment with credit card: <http://www.sfip-plastic.org/inscription>

IN BLOCK CAPITALS:

M^{rs} ☐

M^s ☐

M^r ☐

Family Name: First Name:

Company: Department:

Position:

Address:

Postcode: City: Country:

Tel: Mobile: Fax:

Email:

VAT number:

I register to the symposium

Rates exc. VAT (Association Loi 1901)

☐ **790 €:** Non member*

☐ **640 €:** SFIP Member

☐ **490 €:** University professor & research*

☐ **340 €:** University professor & research Member

☐ **0 €:** Student (no lunch) → student card copy required

☐ **0 €:** Speaker free access (one by company by presentation)

* This rate offers you the possibility to become a member (by filling in the application form) SFIP→ Adhesion section on the site www.sfip-plastic.org

For any question, please contact: chantal.sohm@sfip-plastic.org

Visit Museum (evening of March 8) - Please tick the exhibition of your choice:

☐ Le Baptistère de Grenoble

☐ L'Isère en Histoire

☐ Pic & Bulle

Payment (Please contact us if the invoice address is different)

☐ **By check** in Euros made payable to SFIP

☐ **By bank transfer** in Euros made payable to SFIP

IBAN: FR68 3000 2008 5000 0000 5678 A81 – BIC : CRLYFRPP

Please, precise your company name and reference: **Colloque 03 2017**

☐ **By credit card on line** - (Visa, CB, Mastercard)

☐ **A purchase order will be sent**

Date and signature

Company stamp

REGISTRATION CONDITIONS

- Registration fees include participation in the conference, documentation, lunches and coffee breaks, museum visit and dinner of 8/03/2017.
- Where it is not possible to send the payment together with the form, each registration should be accompanied by an official purchase order. Failing reception of an official purchase order or payment on the day of the congress, we regret that you will not be allowed entry to the congress.
- When we have received the registration form, we will send you a confirmation message and an invoice. Please indicate the accounts department address when necessary.
- Till February 8, 2017, you can cancel your registration in a written form. After this date, the entire registration will be retained. Registered participants not able to attend may nominate a substitute and inform us in a written form.