FINAL PROGRAM

2021

15 – 16 April 2021

KU LEUVEN

**University of Leuven – Campus Ghent
Ghent, Belgium**

Organized and Sponsored by

PROGRAM AT A GLANCE

SCIFI-IT'2021 ONLINE CONFERENCE

April 15

09.00-14.00 Registration
09.30-09.45 Login of Participants
09.45-10.00 Welcome address and Introduction to SCIFI-IT'2021
10.00-10.15 Coffee Break
10.15-12.30 Session: Future Production Engineering Systems
12.30-13.30 Lunch
13.30-14.30 KeynoteThomas Schmickl
14.30-15.00 Coffee Break
15.00-16.00 Keynote Megan Field
16.00-16.15 Closing Session Day 1

April 16

08.30-14.00 Registration
08.45-09.00 Login of Participants
09.00-10.00 Keynote Pekka Janhunen
10.00-10.15 Coffee Break
10.15-12.30 Session: Future Security Technology and AR & VR in Society
12.30-13.30 Lunch
13.30-14.30 Invited Speaker Joël Colloc
15.00-15.15-Coffee Break
15.15-16.15 Keynote Thomas Valcke
16.15-16.30 Closing Session and Best Paper Award

SCIFI-IT'2021 ONLINE FINAL PROGRAM

Overhead, LCD Projector and video screens are standard
The underlined authors are usually the presenters.
Conference Site: **ONLINE MEETING Room M210, (Building M, 2nd Floor)**, KU Leuven Technologiecampus Gent, Gebroeders de Smetstraat , B-9000 Ghent. **The entrance to building M is via Building L.** The way to the event will be signposted. (**for building locations see map at the back of the programme**)
For any local information contact **Monika Polańska**: (✉ Email: **monika.polanska@kuleuven.be**)
General Phone Number and Email ☎ Tel. +32.9 265 86 10, ✉ Email: **iiw.gent@kuleuven.be**

Only papers in gray boxes are eligible for the best paper award.
Papers designated ONL are presented online

Thursday, April 15, 2021

09.00 - 14.00   **Registration SCIFI-IT'2021**

09.30 - 09.45   Login of Participants

09.45 - 10.00   **ROOM M210- WELCOME**

       Welcome Address
       Philippe Geril, EUROSIS-ETI, Ostend, Belgium

10.00 - 10.15   **Coffee Break**

Thursday, April 15, 2021

10.15 - 12.30	**ROOM M210 - SESSION I** **FUTURE PRODUCTION ENGINEERING SYSTEMS**

10.15-12.30 **Session Chairperson:**
 Jan Van Impe, University of Leuven, Campus Ghent, Belgium

AUG_05_ENG
Digital Twins in Industrial Process Engineering
Victor Dozortsev, Dmitry Agafonov, Igor Slastenov
and Eugene Baulin 37

AUG_09_ENG
Towards Food 4.0: CAFE - Computer Aided Food Engineering for Production and Advanced Analytics for the "Perfect Pintje"
Satyajeet Sheetal Bhonsale, Carlos André Muñoz López, Ihab Hashem
and Jan F.M. Van Impe 43

FOOD_01_ENG
Transforming Cultured Cells to Meat: Potential Paths to Culinary Success
Gemma Lyons, Victor Sayous, Jesús M Frías, Monika E. Polańska
and Jan FM Van Impe 49

12.30 - 13.30 **Lunch Break**

13.30 - 14.30	**ROOM M210 - SESSION II** **KEYNOTE**

13.30-14.30 **Session Chairperson:**
 Satyajeet Sheetal Bhonsale, University of Leuven, Campus Ghent, Belgium

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SCIFI_KEY_01
The Queen and her Robotic Court: A Minimally Invasive Form of Ecosystem Hacking
Thomas Schmickl, Martin Stefanec, Daniel N. Hofstadler, Tomas
Krajnik Ali Emre Turgut and Farshad Arvin ……………………………5

Thursday, April 15, 2021

14.30 - 15.00   **Coffee break**

15.00 - 16.00   **ROOM M210 - SESSION III**
                   KEYNOTE

15.00-16.00   Session Chairperson:
                   Monika Polańska, University of Leuven, Campus Ghent, Belgium

SCIFI_KEY_03
Barriers in Facilitating Trust in Artificial Actants
Megan Field, Saïd Business School, University of Oxford, Oxford, United Kingdom

16.00 - 16.15   **ROOM M210 - SESSION IV**
                   CLOSING SESSION DAY I

16.00-16.15   Session Chairperson:
                   Philippe Geril, EUROSIS-ETI, Ostend, Belgium

                   A quick preview round-up of the April 16 presentations

Friday, April 16, 2021

08.30 - 14.00 **Registration SCIFI-IT'2021**

08.45 - 09.00 Login of Participants

09.00 - 10.00	**ROOM M210 - SESSION V**
	KEYNOTE

09.00-10.00 **Session Chairperson:**
Philippe Geril, EUROSIS-ETI, Ostend, Belgium

SCIFI_KEY_02
Ceres Megasatellite World
Pekka Janhunen, Finnish Meteorological Institute /Space Research and Observation Technologies

10.00 - 10.15 **Coffee Break**

10.15 - 12.30	**ROOM M210 - SESSION VI**
	FUTURE SECURITY TECHNOLOGY AND AR & VR IN SOCIETY

10.15-12.30 **Session Chairperson:**
Satyajeet Sheetal Bhonsale, University of Leuven, Campus Ghent, Belgium

> **AUG_01_ENG_3D**
> **Training Machine Learning Algorithms for Computer Vision Tasks in Difficult Conditions: 3D Engines to the Rescue**
> Charles Hamesse, Rihab Lahouli, Timothée Fréville, Benoît Pairet and Rob Haelterman**...25**

Friday, April 16, 2021

12.30 - 13.30   Lunch

13.30 - 14.30   **ROOM M210 - SESSION VII
                         INVITED SPEAKER**

13.30-14.30   **Session Chairperson:**
                          <u>Monika Polańska,</u> **University of Leuven, Campus Ghent, Belgium**

SCIFI_INV_01
Artificial Consciousness: Feasibility and Challenges
<u>Joël Colloc</u>..**13**

15.00 - 15.15   **Coffee Break**

Friday, April 16, 2021

15.15 - 16.15	**ROOM M120 - SESSION VIII**
	KEYNOTE

15.15-16.15   Session Chairperson:
                    <u>Jan Van Impe,</u> **University of Leuven, Campus Ghent, Belgium**

SCIFI_KEY_01
Insights in Future Mobility
<u>Thomas Valcke</u>, CREAX Intelligence for Innovation, Kortrijk, Belgium

16.15 - 16.30	**ROOM M120 - SESSION IX**
	CLOSING SESSION AND BEST PAPER AWARD

16.15 - 16.30   Session Chairperson:
                      <u>Philippe Geril</u>**, EUROSIS-ETI, Ostend, Belgium**

SESSION CHAIR INFORMATION

Information for Session Chairs

Session Chairs are chosen on a voluntary basis by proposals by either authors or local committee members or are appointed by the Track Chairs, General Program Chair or General Conference Chair. They are responsible for their assigned session. They make sure their speakers are available, take care of the timing within the session, chair the discussion after each presentation and introduce each speaker based on the CV's given to them by the authors. In case they chair a session featuring **extended papers**, then they are required to distribute and collect the reviews of that or those papers at the beginning and end of the session. If they have time they should also indicate in their papers the number of session participants.

2022

SEE YOU ALL NEXT YEAR AT SCIFI-IT'2022
location and dates in Belgium to be confirmed soon

Proposals for special tracks/tutorials/demos can be sent in by SEPTEMBER 15th 2021

VIRTUAL CONFERENCE LOCATION

Virtual Conference Venue

Buildings M & L (see map below)
KU Leuven Technologiecampus Gent
Gebroeders de Smetstraat 1
B-9000 Ghent
Tel: +32.9 265 86 10

EUROSIS 2021 Forthcoming Conferences

ISC'2021, **June 2-4, 2021**, **University of Malta**, **Valletta, Malta – ONLINE EVENT**

GAME-ON'2021, **September 22-24, 2021**, **Department of Communication and Art**, **University of Aveiro**, **Aveiro, Portugal**

ESM'2021, **October 27-29, 2021**, **IUL - Universita Telematica degli Studi**, **Rome, Italy –exact location in Rome to be posted shortly**

2022- 2023 Conferences so far

FOODSIM'2022, April 3-6, 2022, University of Leuven/Ghent Research Centre, Ghent, Belgium
ISC'2022, June 1-3, 2022, UCD Dublin, Ireland
ESM'2022, October, 2022, LAAS Toulouse, France (TBC)
ISC'2023, May 31-June 2, 2023, University of Malta, Valletta, Malta.

NOTES

SCIFI-IT'2021 Online At-Conference Registration Form

Please legibly print or type and fill out completely. (Check appropriate boxes where necessary)

FIRST NAME	LAST NAME	M.I.
COMPANY OR AFFILIATION		
Mailing address (tick one): [ ] HOME [ ] BUSINESS		
STREET		
CITY		
ZIPCODE	COUNTRY	
TELEPHONE	FAX	
E-MAIL		
DATE	SIGNATURE	

1. [ ] EUROSIS member € 415 Member Number:_____	€_____
2. [ ] Members of Sponsor or Affiliate Society € 415	€_____
3. [ ] Non-Member Participant € 435	€_____
4. [ ] Student Participant € 365	€_____
5. [ ] ~~Students~~, ~~who are not authors~~ ~~but who wish to attend the conference, or~~ ~~ONE DAY PARTICIPANTS~~ ~~pay:~~ ~~€ 440~~	€_____
~~(Above registration fees include, one copy of the PROCEEDINGS, all midday meals, cocktail, refreshments, coffees and social program,) One Day Participants and Non-Author Students cannot participate in the conference dinner.~~	
~~6. [ ] Tutorial registration ONLY - €30 (students) Or €80 (non students)/ per tutorial~~	€_____
~~7. [ ] Conference Dinner Ticket~~ ~~for Companion~~ ~~€ 80 [] Lunch Ticket~~ ~~for Companion~~ ~~€ 25/day~~	€_____
~~8. [ ] Extra Conference Proceedings € 30 Cash and Carry~~	€_____
VAT Number if applicable: _____	
TOTAL AMOUNT DUE	€_____
ADD 21% VAT (Value Added Tax) OBLIGATORY	€_____
TOTAL AMOUNT REMITTED	€_____

[ ] 2)   Pay by **CREDIT CARD** and fill in the information below:

Charge my (tick one): [ ]Visa [ ] Euro/Mastercard [ ] American Express

CARD NO: __ __ __ __ : __ __ __ __ : __ __ __ __ : __ __ __ __ EXP.DATE: __ __ / __ __

Authorizing Signature:

Print Signature in CAPITALS

EUR␣SIS

EUROSIS was borne out of discussions with the European Community to set up a new kind of Society, which would be project driven instead of driven by pure membership and conferences.

The aim of the new Society is to set up topic related Technical Committees which link directly to European Projects in the field of computer simulation and related areas and to act as a knowledge pool for future HORIZON 2020 European Networks of Excellence, like MOSAIC.

If you would like to receive more information about EUROSIS, please contact

> **Philippe Geril**
> **EUROSIS-ETI**
> **European Simulation Office**
> **Bluebridge – Ostend Science Park**
> **Wetenschapspark 1**
> **Plassendale 1**
> **B- 8400 Ostend**
> **Belgium**
> **Tel: +32.59.255.330**
> **Email: Philippe.Geril@eurosis.org**

Please send me info on EUROSIS:
Name**:**………………………………………………………………………………………………..
Address**:**………………………………………………………………………………………………..
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Telephone: …………………………………………………………………………………………….
Fax: …………………………………………………………………………………………………….
Email: ....