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 Keynote Thomas 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, EUROIS-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

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, Said 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
Computer Vision System for deviant Behavior Identification
Anton Ivaschenko, Dmitriy Anikin, Alexandr Chuvakov, Pavel Sitnikov
and Oleg Surnin

Hand Simulation for VR Based Rehabilitation
Anton Ivaschenko, Alexandr Kolsanov, Sergey Chaplygin
and Sergey Rovnov

Teaching Behavioural Routines using Augmented Reality in the ARETE Project
Giuseppe Chiazzese, Sui Lin Goei, Jeroen Pronk, Crispino Tosto,
Luciano Seta, Marco Arrigo, Davide Taibi, Mariella Farella and Eleni Mangina

12.30 - 13.30 Lunch

13.30 - 14.30 ROOM M210 - SESSION VII INVITED SPEAKER

13.30-14.30 Session Chairperson: Monika Polańska, University of Leuven, Campus Ghent, Belgium

Artificial Consciousness: Feasibility and Challenges
Joël Colloc

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:
               Jan Van Impe, University of Leuven, Campus Ghent, Belgium

SCIFI_KEY_01
Insights in Future Mobility
Thomas Valcke, 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:
               Philippe Geril, 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.
# SCIFI-IT’2021 Online At-Conference Registration Form

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

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1. [ ] EUROISIS 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 € __________

[12] 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
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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