

SHeIC 2021

Smart Healthcare International Conference

Healthcare of the future!

La santé du futur !

1st - 3rd December 2021

Troyes, France

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Keynote speakers

- **Prof. Dr. Dr. habil. Dmitry Ivanov** - Ripple Effect and Resilience in Supply Chains: Lessons From and Thinking Beyond the COVID-19 Pandemic.
- **David Gruson, PhD.** - Artificial Intelligence and ethics in Digital Health.
- **Michelle Kelly-Irving, PhD.** - Social issues and Big Data.

Contents

Program.....	6
Planning, Wednesday, 1st December 2021	8
Planning, Thursday, 2 nd December 2021	8
Planning, Friday, 2 nd December 2021	10

Program

Wednesday 1st December 2021	15:00 - 18:00 Registration (Part 1) - Hall M (UTT)			
	18:45 - 20:00 Welcome Reception Hotel de Ville of Troyes			
Thursday 2nd December 2021	8:00 - 9:00 Registration (Part 2) - Hall M (UTT)			
	9:00 - 10:00 Opening session - Amphi M500 - Zoom and Youtube Live https://www.sheic2021.com/opening			
	10:00 - 10:50 Plenary session 1: Artificial Intelligence and ethics in Digital Health Speaker: Dr. David Gruson Chaired by Prof. Hichem Snoussi https://www.sheic2021.com/p1 On site: Amphi M500 - Zoom and Youtube Live			
	10:50 - 11:10 Coffee break - Hall M			
	11:10 - 12:00 Plenary session 2: Ripple Effect and Resilience in Supply Chains: Lessons From and Thinking Beyond the COVID-19 Pandemic Speaker: Prof. Dr. Dr. habil. Dmitry Ivanov Chaired by Prof. Nathalie Sauer https://www.sheic2021.com/p2 On site: Amphi M500 - Zoom and Youtube Live			
	12:00 - 14:00 Lunch - Room M104			
	14:00 - 15:30	S1-1: Technology, robotics and healthcare Chairperson: Dr. Habil. Farah Chehade https://www.sheic2021.com/s11 Room B202	S2-1 : Data driven healthcare Chairperson: Dr. Stéphane Sanchez and Dr. David Laplanche https://www.sheic2021.com/s21 Room B203	S3-1 : Healthcare Management System and service for the Patients Chairperson: Dr. Habil. Christophe Sauvey https://www.sheic2021.com/s31 Room B207
	15:30 - 16:00 Coffee break - Hall M			

	16:00 - 17:30	<p>S2-2 : Data driven healthcare</p> <p><i>Chairperson: Dr. Daniel Alshamaa</i></p> <p>https://www.sheic2021.com/s22</p> <p>Room B203</p>	<p>S3-2 : Healthcare Management System and service for the Patients</p> <p><i>Chairperson: Dr. Matthieu Godichaud</i></p> <p>https://www.sheic2021.com/p32</p> <p>Room B207</p>
	17:30 - 19:00	Board EAHM	
	19:30 - 23:00	Gala Dinner (Mandatory registration)	
Friday 3rd October 2021	9:00 - 10:00	<p>Plenary session 3: Social issues and Big Data</p> <p>Speaker: Dr. Michelle Kelly-Irving</p> <p><i>Chaired by Dr. Habil. Farah Chehade</i></p> <p>https://www.sheic2021.com/p3</p> <p>Amphi M500 - Zoom and Youtube Live</p>	
	10:00 - 10:15	<p>Award session - Amphi M500</p> <p>https://www.sheic2021.com/p3</p>	
	10:15 - 10:45	Coffee break - Hall M	
	10:45 - 12:15	<p>Special session - Curie Institut</p> <p><i>Chairperson: Prof. Fabien Reyat</i></p> <p>https://www.sheic2021.com/s23</p> <p>Room B203</p>	<p>S3-3 : Healthcare Management System and service for the Patients</p> <p><i>Chairperson: Dr. Habil. Alice Yalaoui</i></p> <p>https://www.sheic2021.com/s33</p> <p>Room B208</p>
	12:15 - 12:45	<p>Closing session and next edition announcement</p> <p>https://www.sheic2021.com/closing</p>	
	12:45 - 14:00	Lunch - M104	

Planning, Wednesday, 1st December 2021

Welcome Reception at Troyes Center
Hotel de ville Troyes - Pl. Alexandre Israël, 10000 Troyes
Wednesday, 1st December 2021, 18:45-20:00
In presence of Mr. François Baroin, Mayor of Troyes, President of Troyes Champagne Metropole

Planning, Thursday, 2nd December 2021

Opening session
Thursday 2nd December 2021, 9:00-10:00
Virtual room: <https://www.sheic2021.com/opening>
Physical room: Amphi 500

Prof. Farouk Yalaoui, Senior Vice president of University of Technology of Troyes (UTT)
Mr. Pierre Koch, President of University of Technology of Troyes (UTT)
Mr. Philippe Blua, Director of Hôpitaux Champagne Sud (HCS)
Mrs. Zaynab Riet, General Delegate of Federation Hospitalière de France (FHF)
Mr. François Baroin, Mayor of Troyes, President of Troyes Champagne Metropole

Plenary session 1, Thursday 2nd December 2021
Virtual room: <https://www.sheic2020.com/ps1>
Physical room: Amphi M500 - Zoom and YouTube Live

10:00-10:50 **Artificial Intelligence and ethics in Digital Health**
Dr. David Gruson, Professor at Health Chair of Sciences Po Paris
Chairperson: Prof. Hichem Snoussi

Plenary session 2, Thursday 1 October 2020
Virtual room: <https://www.sheic2020.com/ps2>
Physical room: Amphi M500 - Zoom and YouTube Live

11:10-12:00 **Ripple Effect and Resilience in Supply Chains: Lessons From and Thinking Beyond the COVID-19 Pandemic**
Prof. Dr. Dr. habil. Dmitry Ivanov, Professor of Supply Chain and Operations Management Department of Business and Economics Berlin School of Economics and Law, Berlin, Germany
Chairperson: Prof. Nathalie Sauer

First Session: 2nd December 14:00-15:30

S1-1: Technology, robotics and healthcare
2nd December 2021, 14:00-15:30
Chairpersons: Dr. Habil. Farah Chehade
Virtual room: <https://www.sheic2020.com/s11>
Physical room: B202

- 14:00-14:15** **Use of Electric Medical Vehicles in HHC Routing Problems: Analysis of a Novel Multi-objective Approach**, Oumayma Bahri and Lionel Amodeo #10
- 14:25-14:40** **Breast MRI Analysis for Surgeons Using Virtual Reality: A Comparative Study**, Mohamed El Beheiry, Thomas Gaillard, Fabien Rey and Caroline Malhaire, #14
- 14:50-15:05** **Turning Phase Detection Via Doppler Radar System And Detrended Fluctuation Analysis**, Ali Termos, Dona Elisa Bou Zeidan, Jamal Charara and Aly Chkeir, #22
- 15:15-15:30** **Continuous wavelet transform based eye blink characterisation for BCI**, Alexandre Houzé and Stéphane Binczak, #25

S2-1 : Data driven healthcare
2nd December 2021, 14:00-15:30
Chairpersons: Dr. Stéphane Sanchez and Dr. David Laplanche
Virtual room: <https://www.sheic2020.com/s21>
Physical room: B203

- 14:00-14:15** **Statistical Models for Predicting the Number of Patients in the Maternity Services of the CHT**, Daniel Alshamaa, Anis Ouazene, Axelle Torelli, Farah Mourad-Chehade, Hicham Chehade, Nhan-Quy Nguyen, Farouk Yalaoui, Stéphane Sanchez and David Laplanche, #18
- 14:25-14:40** **Hybrid modalities approach based on Multi-Convolutional neural network algorithm for Leukoaraiosis detection**, Amir Nakib, #24
- 14:50-15:05** **Evaluation of Emergency Department crowding through service times modeling**, Adrien Wartelle, Farah Mourad-Chehade, Farouk Yalaoui, David Laplanche and Stéphane Sanchez #6
- 15:15-15:30** **Bayesian Networks for Acute Toxicity Modeling in the Case of Radiotherapy Treatment of Breast Cancer**, Mélanie Piot, Frédéric Bertrand and Myriam Maumy-Bertrand, #19
- 15:40-15:55** **Introduction to Process Mining for the Improvement of Patient's Journeys**, Frédéric Bertrand, Myriam Maumy-Bertrand and Yoann Valero, #26

S3-1 : Healthcare Management System and service for the Patients

2nd December 2021, 14:00-15:30

Chairpersons: Dr. Habil. Christophe Sauvey

Virtual room: <https://www.sheic2020.com/s31>

Physical room: B207

- 14:00-14:15** **Knowledge-guided search applied to the transportation of disabled people**,
Timothée Chane-Haï, Samuel Vercaene, Céline Robardet and Thibaud Monteiro
#5
- 14:25-14:40** **Architecture and Healthcare: The use of technology for everyday care and the
well-being of autistic children**, Sana Layeb , #1
- 14:50-15:05** **The necessity of subjectivity to capture the complete Frailty gure**, Manuel Abbas,
Joaquim Prud'Homme, Fabien Lemoine, Dominique Somme and Régine Le Bouquin
Jeannès #3
- 15:15-15:30** **Cooperating to build and manage patients' trajectories**, Rahma Marraf, Khuloud
Abou Amsha and Myriam Lewkowicz, #23

Second Session: 16:00-17:30

S2-2 : Data driven healthcare

2nd December 2021, 16:00-17:30

Chairpersons: Dr. Daniel Alshamaa

Virtual room: <https://www.sheic2020.com/s22>

Physical room: B203

- 16:00-16:15** **Predictive Potential of UMLS-based Embeddings for Texts in Electronic Health
Records**, Simon Roquette, Nicolas Garcelon, Lucien Roquette, Antoine Neuraz, Jan
Chrusciel, Stephane Sanchez and Matthieu Simeoni, #2
- 16:20-16:35** **Design and methods of a national, multicenter single-arm trial of digital
phenotyping in young breast cancer patients treated with neoadjuvant
chemotherapy: the NeoFit Trial**, Lidia Delrieu, Enora Laas, Florence Coussy, Aryn
Kassara, Bernard Asselain, Juliana Antero, Paul De Villele, Elise Dumas, Nicolas
Forstmann, Julien Guérin, Maud Milder, Armand Leopold, Adrien Sedeaud, Jean-
François Toussaint, Vincent Vercamer, Anne-Sophie Hamy, Fabien Reyal, #12
- 16:40-16:55** **Spatial accessibility to oncology care centers in metropolitan France**, Eric Daoud,
Christine Le Bihan-Benjamin, Sophie Houzard, Philippe-Jean Bousquet, Marc
Lelarge3, Fabien Reyal, #11
- 17:00-17:15** **A Human-centered, Health data-driven Ecosystem**, Guylian Stevens, Luc Hantson
and Pascal Verdonck, #16
- 17:15-17:30** **Towards an IoT and Big Data architecture for hospital management in pandemic
cases**, Safae Bouziane, Mohamed Tabaa and Badir Hassan #7

S3-2 : Healthcare Management System and service for the Patients

2nd December 2021, 16:00-17:30

Chairpersons: Dr. Matthieu Godichaud

Virtual room: <https://www.sheic2020.com/s32>

Physical room: B207

- 16:00-16:15** **Resolution methods for scheduling production processes in hospital catering,** Fatima Abderrabi, Matthieu Godichaud, Alice Yalaoui, Farouk Yalaoui, Lionel Amodeo and Ardian Qerimi, #20
- 16:25-16:40** **The Komunity application. A single point of entry for information and patient experience for the improvement of the the healthcare ecosystem,** Quitterie Lanta, Dorian Bondu, Aryn Kassara and Fabien Reyat, #13
- 16:50-17:05** **Management of the Hospital's Ambulatory and Inpatient Operations Using a Markovian Model,** Kaouter Karboub, Mohamed Tabaa, Sofiene Dellagi, Abbas Dandache and Fouad Moutaouakkil #8
- 17:15-17:30** **Operating process and hybrid flowshop analogy for electives up and downstream scheduling,** Christophe Sauvey, Ayoub Tighazoui, Nathalie Sauer and Afef Bouguerra #4

Planning, Friday, 3rd December 2021

Plenary session 3: Friday 3rd December 2021

Virtual room: <https://www.sheic2020.com/ps3>

Physical room: Amphi M500 - Zoom and YouTube Live

- 9:00-10:00** **Social issues and Big Data**
Dr Michelle Kelly-Irving, researcher at Université Paris Est Créteil. Director - EQUITY Team, Epidemiology and Public Health Research
Chairperson: Dr. Habil. Farah Chehade

Session 10:45-12:15

S2-3 : Data driven healthcare

3rd December 2021, 10:45-12:15

Chairpersons: Prof. Fabien Reyat

Virtual room: <https://www.sheic2020.com/s23>

Physical room: B203

- 10:45-11:00** **Cancer BigData IA 1 : Smartphone, Komunity Sharing is Caring,** Quitterie Lanta, Institut Curie
- 11:05-11:20** **Cancer BigData 2 : Socio-demographic data to support the organization of health stakeholders,** Mr Eric Daoud, Institut Curie
- 11:25-11:40** **Cancer BigData 3 : Smartwatch, digital phenotyping, physical activity and cancer,** Lidia Delrieu, Institut Curie

11:45-12:00 Cancer BigData 4 : Virtual reality, making surgeons accurate, Mohamed Elbeheiry

12:00-12:15 Cancer BigData 5 : Decision support application in breast reconstruction, Pr Fabien Reyal, Institut Curie

S3-3 : Healthcare Management System and service for the Patients

3rd December 2021, 10:45-12:15

Chairpersons: Dr. Habil. Alice Yalaoui

Virtual room: <https://www.sheic2020.com/s33>

Physical room: B208

10:45-11:00 Forecasting Patient Volumes in the Outpatient Department of a Tunisian Public Hospital, Hana Ben Mbarek, Safa Bhar Layeb, Najla Aissaoui Omrane and Atidel Hadj-Alouane #9

11:10-11:25 Predicting surgery durations in non-elective emergency operating rooms using machine learning techniques: A case study of La Pitié Salpêtrière hospital, Anwer Nebli, Gustavo Santamaria-Acevedo, Benjamin Legros, Zied Jemai and Oualid Jouini, #15

11:35-11:50 Analysis and modeling of the key performance indicators in the emergency department, Faiza Ajmi and Slim Hammadi, #17

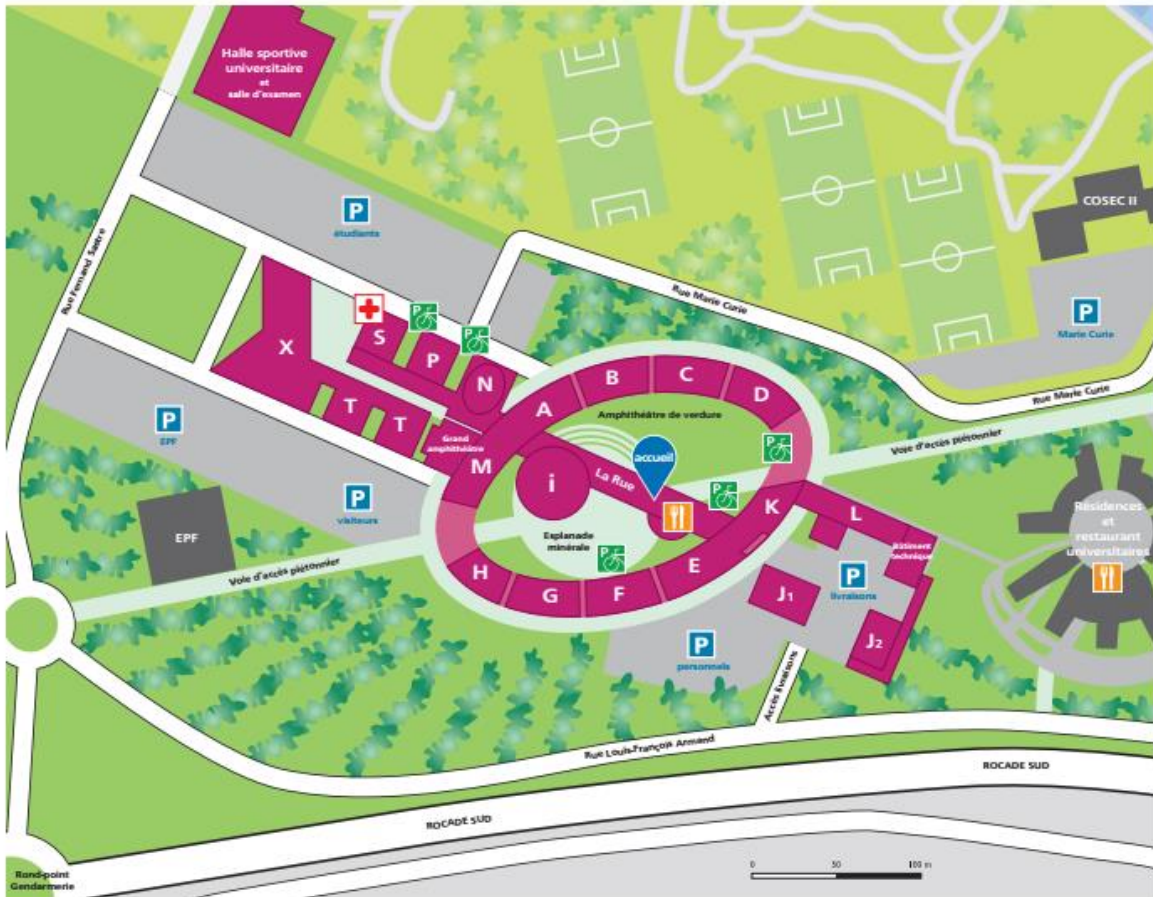
12:00-12:15 Predicting hospital waiting times using a generalized stochastic Petri net model, Ibtissem Chouba, Taha Arbaoui, Lionel Amodeo, Farouk Yalaoui and David Laplanche, #21

3rd December 2021, 12:15-12:45

Closing session and next edition announcement

Virtual room: <https://www.sheic2020.com/closing>

Physical room: Amphi M500 - Zoom and YouTube Live



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