

Matinée d'information et de réseautage sur les AAP 2022 de l'Académie RISE

Academy of Excellence 1: "Networks, Information and Digital Society" (RISE)

17 mai 2022

Ambitions / scope of action of the RISE Academy

- Designing and experimenting communication networks of the future
 - e.g. 5G/6G networks and processing of massive distributed data
- Developing digital sciences to model, simulate and experiment
 - e.g. in the physical, biological and medical domains
- Improve the understanding of the transformation induced by the digitalization of society
 - impact on citizens with challenges related to privacy, and to legal and ethical aspects

Role of the RISE Academy – Research strategy

- **Iindex 1 (2016-2020): *Agitator***
 - Implementation of bottom-up actions (Open call for proposals, mobility grants)
 - Support for interdisciplinary actions
 - Animation of the scientific community
- **Iindex 2 (2021 -): *Incubator***
 - Support the scientific excellence of emerging (inter)disciplinary research
 - Stimulate intellectual exchange to enable the emergence of new ideas and the development of innovative actions
 - Participate in the scientific policy of the site by promoting and evaluating structuring programs
 - Strengthen the international influence of activities within its scope

RISE positioning w.r.t. DS4H

- 2016-2020:
 - Joint activities : *same perimeter for Academy (2016) and EUR (2018)*
 - Same executive, scientific (CoSP) and steering committee (CoPil) members
 - Exec: Hervé Delingette and Johan Montagnat
 - Different from other Academies/EURs (perimeters, ressources)
- Since 2021:
 - Two executive committes, same CoSP, same CoPil
 - Education aspects are treated by the EUR
 - Research animation activities are treated by the Academy
 - Financing of joint projects

Activities since 2016

- **Scientific animation:**

- Data Science MeetUp (2017), Digital Privacy (2018), Digitalization & Environment (2019), Quantum@UCA (2021), Forum Numerica

- **Funding research activities:**

- Support innovative interdisciplinary projects (**29 projects - 1,2 M€**, + 1,5 M€ leveraging effect, + 50 publications, industrial and international collaborations)
- Post-docs (**12**), PhDs (jointly with DS4H), interns
- Equipments funding
- Support researchers and students mobility
- Support thematic events organization

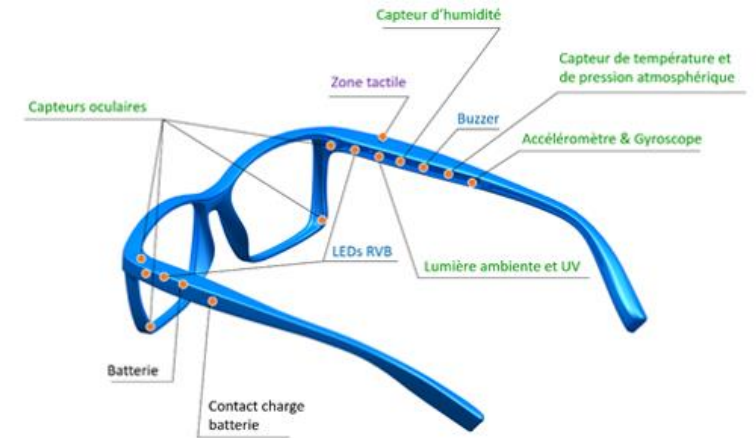
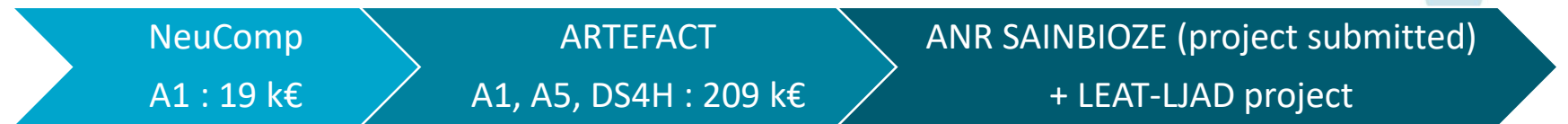
Highlights on last projects funded by RISE Academy

- Project ARTEFACT “Study and design of digital devices for sensory substitution and extended cognition”
- Project EMC2 “Emergence of money with cognitive computational agents”
- Project I-LL-WIN “Improved localization in wireless IoT networks”
- Project MAD “Modeling Air-travel Booking Behavior and Market Dynamics”
- Project MYDATA “Muddle your data”
- Project SIM Phase 2 “Smart IoT for mobility – Phase II”
- Project SNIF “Scientific networks and Idex funding”
- Project IBRID “From learning-based identification to model-based control”

Zoom ARTEFACT

Study and design of digital devices for sensory substitution and extended cognition

- PI : Daniel Gaffé, LEAT
- Multidisciplinary and international academic partners : LEAT, I3S, LJAD, GREDEG, MSHS, LAPCOS, Université de Tokyo
- Industrial partner : Ellicie-Healthy, Abeeway
- RISE Academy funding : 49,5 k€
- 1 publication
- Developments : Autonomous geolocation device, Smart glasses prototype, New softwares
- 1 PhD, 1 Postdoc, 2 Interns
- Leveraging effect :



Zoom EMC2

Emergence of money with cognitive computational agents

- Using methodologies from computer science together with cognitive agent methodology to study the acceptance of fiat money in a decentralized context
- PI : Maurizio Iacopetta, GREDEG
- Multidisciplinary and international academic partners : GREDEG, I3S, Georgia Institute of Technology Mathematics, Osaka university
- RISE Academy funding : 29 k€
- 2 publications
- 2 Interns



Zoom I-LL-WIN

Improved localization in wireless IoT networks

- Objective : The development of a localization system in LPWAN IoT networks
- PI : Leonardo Lizzi, LEAT
- Multidisciplinary and international academic partners : LEAT, Inria, FBK (Trento, Italy)
- RISE Academy funding : 41 k€
- Leveraging effect :

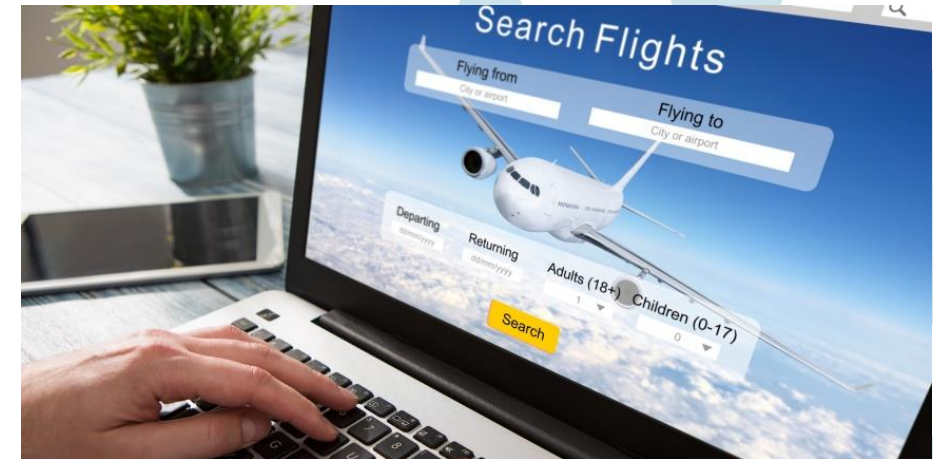


- 8 publications
- 1 PhD, 2 Interns

Zoom MAD

Modeling Air-travel Booking Behavior and Market Dynamics

- Study the online booking behavior of airline travelers
- PI : Zakaria Babutsidze, SKEMA
- Multidisciplinary and international academic partners : SKEMA, GREDEG, North Carolina State University, Osaka University, Rochester Institute of Thecnology
- Industrial partner : Amadeus
- RISE Academy funding : 75 k€
- 6 publications
- 1 PhD, 1 Postdoc
- Leveraging effect : 1 year PhD (SKEMA), 2 years postdoc (AAP Partenariat), discussions with partners for additional funding



Zoom MYDATA

Muddle your data

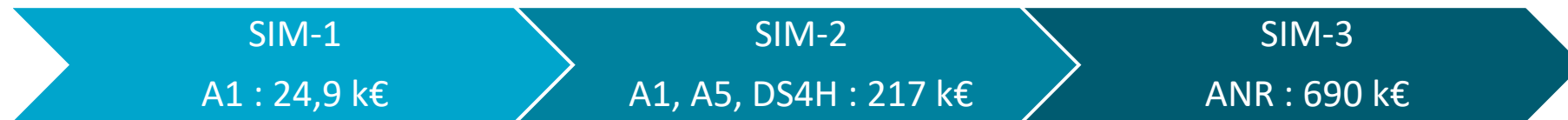
- Study how users can defend their privacy against profiling attempts from different service providers
- PI : Giovanni Neglia, Inria
- Multidisciplinary and international academic partners : Inria, LJAD, GREDEG, Purdue University (USA)
- RISE Academy funding : 27,7 k€
- 3 publications
- 7 interns, 2 PhD, 1 Postdoc
- Leveraging effect : 2 industrial PhD thesis (SAP Labs and Amadeus)



Zoom SIM Phase II

Smart IoT for mobility – Phase II

- Study the use of blockchain and smart contracts for mobility, their execution and their acceptance
- PI : François Verdier, LEAT
- Multidisciplinary academic partners : LEAT, I3S, GREDEG
- Industrial partners : Renault, SYMAG
- RISE Academy funding : 61,5 k€
- Leveraging effect :



- 15 publications
- 7 PhD, 2 Postdocs

Zoom SNIF

Scientific networks and Idex funding

- Objective : Estimate the impact of public funding on researchers' collaboration and productivity
- PI : Patrick Musso, GREDEG
- Multidisciplinary academic partners : GREDEG, I3S, Inria, SKEMA
- International collaboration : Maastricht University, Wroclaw University of Science and Technology
- RISE Academy funding : 75 k€
- 6 publications
- 1 PhD, 1 Postdoc
- Leveraging effect : Visiting professorship, European Patent Office grant, 1 Postdoc (I3S), Erasmus+ scholarship



Zoom IBRID

From learning-based identification to model-based control Ongoing project

- System identification based on deep learning approach using only indirect measurements
- PI : Guillaume Allibert, I3S
- Multidisciplinary academic partners : I3S, INPHYNI
- RISE Academy funding : 75 k€
- 3 publications in progress
- 1 PhD, 1 Postdoc



2022 Calls for projects

- **DocWalker 2022**
 - UCA PhD mobility of 1 to 3 months
 - Application deadline : 1 June 2022
- **POSTDOC 2022**
 - Two postdocs of 1 year + 5 k€ environment
 - Application deadline : 15 June 2022
- **RESEARCH 2022**
 - Research projects benefited from 10 to 50 k€
 - Application deadline : 15 June 2022
- **THEMATIC SCHOOL**
 - 20 k€ for the organization of a thematic school
 - Application deadline : 15 September 2022



POSTDOC 2022

- **Application deadline : 15 June 2022 – 12 am**
- Funding for 2 post-doctoral researchers for 1 year (+ environment) in a research team within the scope of RISE Academy
- Post-doctoral researcher monthly gross salary : around 3470 €
- + 5 k€ to cover operational costs (missions, équipements...)
- Start date of the contract : between 1 September 2022 and 31 January 2023
- Candidate eligibility :
 - Must have defended his dissertation prior to the start of the contract
 - Must not have been hosted more than 6 months at the requested host team during his PhD
- Main evaluation criteria :
 - Scientific excellence of the candidate
 - Scientific quality of the research project (excellence, originality, interdisciplinary aspects)

RESEARCH 2022

- **Application deadline : 15 June 2022 – 12 am**
- Funding for ambitious research projects in the scientific fields of RISE Academy showing **novelty** in their thematic and **interdisciplinary** aspects
- Funding : between 10 k€ and 50 k€
- Eligible expenses :
 - Funding for missions, internships, equipment...
 - Funding for student in pre-PhD or in the last year of his PhD (period of 6 months maximum – 20 k€ maximum)

THEMATIC SCHOOL

- **Application deadline : 15 September 2022**
- Funding for the organization of a thematic school in 2023 for PhD and researchers
- Funding : 20 k€
- Objective : funding a school on **emerging scientific thematic** or emerging methodology, demonstrating **multidisciplinary** aspects
- Main evaluation criteria :
 - Scientific quality of the school (scientific excellence, potential speakers)
 - Quality of the organization of the school
 - Novelty of the thematic of the school and multidisciplinary aspects

Questions ?

Pitches program

- Florent Doutre - « Fabrication de circuits intégrés photoniques »
- Cédric Richard – « Massive smart cities monitoring : the Sequoia project »