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

• Idex 1 (2016-2020): Agitator
  • Implementation of bottom-up actions (Open call for proposals, mobility grants)
  • Support for interdisciplinary actions
  • Animation of the scientific community

• Idex 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 committees, 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: Ellcie-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:
  - NeuComp A1: 19 k€
  - ARTEFACT A1, A5, DS4H: 209 k€
  - ANR SAINBIOZE (project submitted) + LEAT-LJAD project
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
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

I-WIN
A1: 36 k€

I-LL-WIN
A1: 41 k€

H2020 PASSEPARTOUT
Total: 7 M€ (210 k€ for LEAT)
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 Technology
- 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
• 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:
  
<table>
<thead>
<tr>
<th>SIM-1</th>
<th>SIM-2</th>
<th>SIM-3</th>
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<tbody>
<tr>
<td>A1: 24.9 k€</td>
<td>A1, A5, DS4H: 217 k€</td>
<td>ANR: 690 k€</td>
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• 15 publications
• 7 PhD, 2 Postdocs
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

• **THEMATICAL 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 ?
• Florent Doutre - « Fabrication de circuits intégrés photoniques »

• Cédric Richard – « Massive smart cities monitoring : the Sequoia project »