

The **PASET** Regional Scholarship
and Innovation Fund



PASET
Partnership for Skills
in Applied Sciences,
Engineering & Technology

An Africa-led initiative to bridge the skills gap in Applied Sciences, Engineering, & Technology



**UNIVERSITE
GASTON BERGER**

L'excellence au service du développement

RSIF Cohort IV Orientation 19th-23rd Sept. 2022

PHD in Computer Science Gaston Berger University

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<https://www.ugb.sn/>

<https://www.ugb.sn/sat>

<https://www.ceamitic.sn>



Centre d'Excellence Africain en Mathématiques,
Informatique et TIC

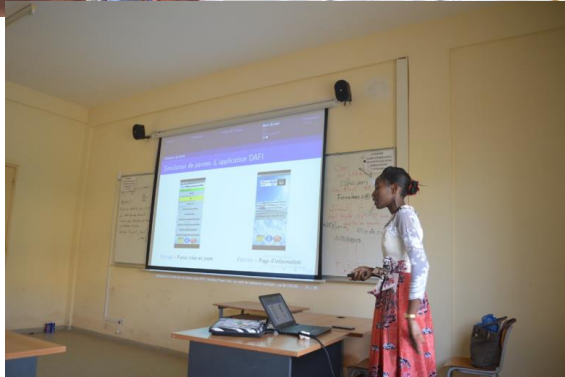
About Gaston Berger University

- Established since 1990
- ~12000 students
- More than 300 permanent Researchers
- 250ha wide campus



UGB Facilities : Académic Campus

- Seven 7 training Labs related to ICT and Applied Physics
- Library with 75000 books and online resources
- Incubator for student and research innovation



UGB Facilities Social Campus

- Campus Hosting 12,000 students
- Sport building and club
- Social activities



About ACE-MITIC

- World BANK supported project hosted at Gaston Berger University in Saint-Louis, Senegal.
- **Main Objectives :**
 - Contribute to the development of science, technology, engineering sciences and mathematics (STEM),
 - Human capital development through initial training (Master and Doctorate levels) and short term courses
 - Promote research towards the productive sectors in Senegal and Africa (agriculture, environment, health, digital economy).
- **Main training and research topics:**
 - ICT including Big Data and Artificial Intelligence, Cybersecurity and IoT (involved in PASET-RSIF Program)
 - Applied Mathematics (Mathematical modeling, statistics, theoretical mathematics)
 - Applied physics (Electronics, Telecommunicaton, Renewable Energy, Nanotechnologies, Environment and Climate Change)



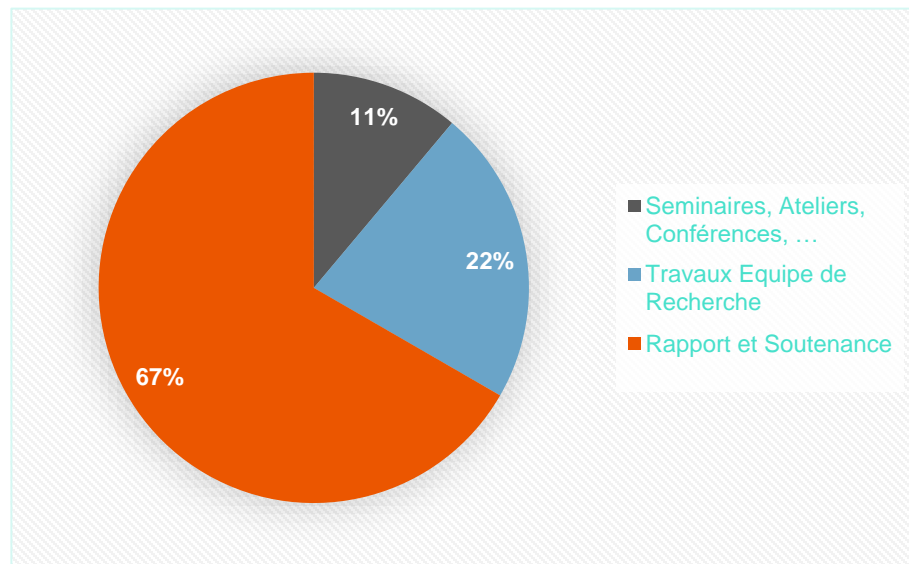
PASET-RSIF at MITIC/UGB's

- Management team
 - National Représentative in PEB (PASET Executive Board) : Pr. Mamadou Sy
 - FP at MITIC/UGB : Pr. Maïssa MBAYE
 - Head of PhD Program : Pr. Cheikh BA
 - PHD Supervisors
- Scholars
 - Cohort 1 : 2 students (Ghana, Senegal)
 - Cohort 2 : 7 students (Burkina FASO, Malawi, Benin, Senegal, Uganda)
 - Cohort 3 : 8 2 students (Benin, Côte d'Ivoire, Kenya, Nigeria, Senegal)*
 - Cohort 4 : 4 students (Burkina FASO, Côte d'Ivoire, Benin, Senegal) + Additional 3 (Mozambique, Senegal)



Computer Science PhD Program (1/3)

- Durations : PhD Program in 3 years (+ one possible extension to 4th Year)
 - [Find all steps of registration here https://www.ugb.sn/recherche/inscription-en-doctorat.html](https://www.ugb.sn/recherche/inscription-en-doctorat.html)
- 180 Credits :
 - 20 crédits : Teachings class, seminars, workshops, conferences and internships;
 - 40 crédits : Research work with supervisor
 - 120 crédits : Thesis report and defense



Computer Science PhD Program (2/3)

Nature	Unite d'Enseignement	Code UE	Crédits
Transversales	Participations aux doctoriales	DOCT611	2
	Techniques et outils de communication	DOCT612	2
	Ethique, Déontologie et Propriété intellectuelle	DOCT613	2
	Pédagogie Universitaire et Méthodologie de la recherche	DOCT614	2
	Gestion de projet	DOCT615	2
Spécifiques	Logiciels libres et recherche en informatique	INFO616	2
	Innovation et veille technologique	INFO617	2
	Valorisation et transfert de technologies	INFO618	2
	Les données, puissance du futur	INFO619	2
	UE de renforcement/ mise à niveau (à définir chaque année)	INFO620	2
		TOTAL	20



Computer Science PhD Program (3/3)

RESEARCH TOPICS AT THE PHD LEVEL

- | | |
|---|---|
| <ul style="list-style-type: none">• Embedded systems, IoT• Data mining, and Big Data• Artificial Intelligence / Machine Learning• Computer and Telecommunication Networks• Cryptography and Cyber Security | <ul style="list-style-type: none">• Software Engineering and Multidimensional Database• Image processing• Semantic Web and complex systems modelling• Distributed systems• ICT4Dev (e-Health, eLearning, e-Agriculture,) |
|---|---|

- Application domains
 - Health, Agriculture, Environment, Energy, ...



Research Labs at MITIC related to ICT

- LANI (Laboratoire d'Analyse Numérique et d'Informatique) :
 - Numerical Analysis and Computer Science Laboratory
- LEITER (Laboratoire d'Electronique, Informatique, Télécommunications et Energies Renouvelables) :
 - Electronics, Computer Science, Telecommunications and Renewable Energies Laboratory
- l'ACCA (Laboratoire Algèbre, Cryptographie, Codes et Applications).
 - Algebra, Cryptography, Codes and Applications Laboratory



Academic Staff in computer Science

Qualification	Number of faculty members	Comments
Professeurs titulaires	3	<ul style="list-style-type: none">Equivalent to Full ProfessorAuthorized to supervise PhD alone
Professeurs Assimilés	5	<ul style="list-style-type: none">Equivalent to Associate ProfessorAuthorized to supervise PhD alone
Maitre de conferences Titulaires et Assimilés	6	<ul style="list-style-type: none">Equivalent to Senior LecturerAuthorized to co-supervise PhD with a Professeur Titulaire or Professeur Assimilé
Assistant	2	<ul style="list-style-type: none">Equivalent to Assistant ProfessorsNot Authorized to co-supervise

- Plus more that 40 academic parners in Senegal and around the World





Welcome to UGB