

PhD Studies at the African Center of Excellence in Internet of Things (ACEIoT)

Background

The Africa Center of Excellence in Internet of Things (ACEIoT) is established at the University of Rwanda (UR), College of Science and Technology with financial support from the World Bank ACE II project. UR-ACEIoT aims to train a critical mass of African Scientists and Engineers in the field of IoT through Higher Education and Research. This provides a great opportunity for African students to enroll in multidisciplinary post-graduate programs in the field of IoT. ACEIoT will build on UR's existing collaborations with the local and international partners, including Carnegie Mellon University in Rwanda, and the International Center for Theoretical Physics, Italy. This ensures that the training will be conducted by a truly global faculty.

Applications are invited from highly motivated and research-oriented students for the admission to PhD Programs in the field of Internet of Things (IoT) with focus on the following areas of specializations:

- 1) PhD in Wireless Sensor Networking
- 2) PhD in Embedded Computing Systems

Trainings will be provided through carefully designed curricula to promote cutting-edge interdisciplinary and multidisciplinary research in the field of IoT. The research supervision would be provided by faculty from UR-College of Science and Technology, as well as from other regional and international Partners from Universities and Research laboratories. Research topics should focus towards the development of new innovative approaches and solutions with relevance to the ESA priority domains, focusing on low-cost, open and sustainable solutions. The Research outcome should describe an overall working system/product/prototype or a real world deployment experience. Solutions to real world problems faced by the East and Southern African region would be of particular interest.

ACEIoT Partners

Partners to be engaged in collaborative training and research programs at the Center include the following:

Sl.No.	Names	Specializations	Affiliation
1	Prof. Idris Rai , (Zanzibar)	Internet Protocols and Systems, and Mobile Computing	State University of Zanzibar (SUZA), Zanzibar
2	Dr. Chomora Mikeke (Malawi)	Energy Aware Electronic Systems, RFIDs, TVWS	University of Malawi, Malawi
3	Dr. Marco Zennaro, (Italy)	Wireless Sensor Networks, IoT4D	ICTP, Italy
4	Dr. Jimmy Nsenga (Belgium)	Embedded Systems	CETIC, Belgium
5	Dr. T.Saravanan, (India)	Power Electronics and Embedded Systems	Bharat University ,India

6	Prof. Timothy X.Brown, CMU-Rwanda	Adaptive Network Control, Wireless Communication and Networking	CMU-R, Rwanda
7	Prof. Raja Datta (Kharagpur)	Wireless Communications Systems/IoT	IIT Kharagpur, India
8	Prof. Kolin Paul , (Delhi)	Embedded Systems/IoT	IIT Delhi, India

Apart from the above listed partners, others include experts from Rochester Institute of Technology-USA, Maastricht University-Netherlands, University of Melbourne-Australia, Regional Universities Forum [RUFORUM], and Private and Public Industry partners from Rwanda.

Admission Requirements of PhD Studies

1. Applicants must have an MSc degree in the relevant discipline of Engineering/Technology (Computer Engineering, Computer Science, Information Technology, Electrical Engineering, Electronics and Communications Engineering) and applicants should have scored a minimum of Second Class Upper division or equivalent at the Bachelor's level.

Second Class Upper division is equivalent to a cumulative average > 70%

Preference will be given to candidates with work experience in the related field.

Women candidates are encouraged to apply.

2. Applicants must submit a research concept note relevant to the PhD degree sought. The concept note should not exceed 2000 words. The concept note should clearly define the research problem, elucidate research done so far to address the problem with annotated references, identify gaps, justify the research work to be done, formulate clear objectives, methods, and indicate expected outcomes, how the outcome will tackle problems related to the priority domains such as agriculture, energy, health, etc focusing on low-cost, open and sustainable solutions. Applicants should also submit a copy of the abstract of their Master's thesis as well as copies of their scientific publications.

3. Applicants are encouraged to interact with one or more of our research faculty to identify a possible main supervisor and, informally, meets/corresponds with him or her, or else ACEIoT assists to identify an appropriate main supervisor and introduces him or her to the candidate at the time of admissions.

No.	Names	Field of Specialization	Affiliation Details	Email ids
1.	Prof. Santhi Kumaran	Wireless/Mobile Communications/ IoT4D	Associate Professor, Department of Computer Engineering, UR-CST.	santhikr69@gmail.com
2.	Dr. Gaurav Bajpai	Embedded Software Development/Software Engineering	Senior Lecturer Department of Computer Engineering, UR-CST	gb.bajpai@gmail.com
3.	Dr. Donart Ngarambe	Software Engineering	Senior Lecturer, Department of Computer Engineering, UR-CST	don_ngrambe@yahoo.com
4.	Dr. Celestine Twizere	Electronics, Electromagnetism and Telecommunication	Senior Lecturer, Department of Electrical and Electronics Engineering, UR-CST	celestintwizere@gmail.com

5.	Dr. Said Rutabayiro Ngoga	Telecommunication Systems/Cognitive Radio Networks and MAC Layer Protocols	Lecturer, Department of IT, School of ICT, UR-CST	nrutabayiro@ur.ac.rw
6.	Dr. Hanyurwimfura Damien	Embedded Software Development/ Software Engineering	Lecturer, Department of Computer Engineering, UR-CST	hadamfr@gmail.com
7.	Dr Richard Musabe	Telecommunication Systems and Networking, Network Security	Lecturer, Department of Computer Engineering, UR-CST	rmasab10@gmail.com
8	Dr. Kabiri Charles	Telecommunication Systems, Cooperative communications, Physical layer security, Wireless energy harvesting.	Lecturer, Department of Electrical and Electronics Engineering, UR-CST	c.kabiri@ur.ac.rw chakabiri@gmail.com
9	Dr. Sibomana Louis	Telecommunication Systems	Lecturer, Department of Electrical and Electronics Engineering, UR-CST	lewis.sis@gmail.com
10	Dr. Luc Ngend	Embedded Systems Programming/Software Engineering	Lecturer, Department of Computer Science UR-CST	nluc2000@yahoo.fr/ lucngend@gmail.com

4. Applicants must pass an interview for admission into the programs (interviews will be conducted via Skype for students from countries other than Rwanda and in person for those within Rwanda).

Mode of PhD

Course Work and Dissertation/Thesis

Duration of Study

A maximum duration of four years of Full time study.

Tuition Fees

Self-sponsored PhD students are required to pay a tuition fee amounting to 1800 USD per annum.

Scholarship Modalities and Sponsorship

Scholarship opportunities are available on a competitive basis for eligible male and female students from Eastern and Southern Africa Region (Kenya, Malawi, Tanzania, Ethiopia, Burundi, Mozambique, Uganda, and Zambia).

- *Full Scholarships* covers living expenses, Tuition fees and return air tickets.
- *Partial scholarships* cover only Tuition fees and return air tickets.
- Apart from the above all registered students will be granted *financial support to cover research expenses* that includes field trips, internships, attending conferences and publication charges.

Female students are supported with extra stipend.

Documents Required for Application

- A cover letter indicating for which program of study the application is being made and description of the motivation to join the program
- A curriculum vitae (CV)
- Notarized Master's and Bachelor's degrees and transcripts
- Recommendation letters from at least two academic referees who are knowledgeable about the applicant.
- Support letter from employer (if any).
- Copies of valid identification card and/or passport.
- Sponsorship letter from an organization (if any).
- Applicants from countries where English is not the medium of instruction must provide an English proficiency certificate from a relevant body or institution in their respective countries.
- Research Concept Note relevant to the PhD degree sought.
- Master's Thesis abstract

Where and When to Apply

Applications can be submitted to the following addresses up to 31th May 2017 for the first batch. Applicants must send scanned soft copies of the above listed documents, in a PDF format as one document (i.e. not in separate files as separate documents). However, PhD research concept notes, copies of MSc thesis abstracts, and publications if any should be sent in a PDF format as separate documents. The documents should be sent to the following email addresses:

santhikr69@gmail.com and
aceiot@ur.ac.rw

Applications received after the deadline will be considered for the next round of PhD selection process.

Notification of Selection

Selected candidates will be informed by email.

Registration and Commencement of Classes

Successful applicants are required to appear in person on the main campus of College of Science and Technology for registration and commencement of classes in September 2017.

Contacts

For any inquiries and further clarifications, please contact the following:

The Director, ACEIoT,

Email: aceiot@ur.ac.rw / santhikr69@gmail.com

Phone No: +250788594505.