



Makerere University
College of Computer and Information
Science (COCIS)

ANNUAL REPORT

2025-26

Message from the Principal



It's been an amazing end to my time as your College Principal. I am grateful for the generous collaboration and partnership I have received during my eight-year tour of duty spanning from 2018 to 2026.

I will now give a detailed summary of our collective accomplishments in the three areas of our strategic goals research, teaching and learning, and community involvement activities during my eight years on tour at the College of Computing and Information Sciences.

In order to change the college's original research posture to one that has broader implications for both research and the community, we have

been consistently training our faculty in critical research and pedagogical techniques over the last eight years.

We have purposefully retooled and tooled them by providing junior staff with financial support to help them further their research, including critical training chances to improve their grant writing abilities and mentoring opportunities and intentional seed funds totaling over 1.5 billion shillings. A little more than 300 publications and more than 8 million US dollars in external awards have resulted from the College's research portfolio and grant capabilities. We have published a record 153 this academic year alone. Under my direction, more than 30 faculty members have earned PhDs, advanced to senior, lecturer, associate professor, or professor status, or both. Currently, we train more than 12 percent of graduate students and PhDs each year who go on to pursue successful professions in academia or industry.

The College has been consistently striving to be a major global hub and center of excellence for the development and application of AI, sensors, usability studies, library and information science, IoT applications, and data science. With several groundbreaking discoveries currently underway, we have created an endowment fund that will enable our



continued journey toward research innovation excellence. Our mission is to produce and cultivate forward-thinking ideas, concepts, and technological advancements while maintaining our commitment to excellence in teaching, learning, and ICT research.

In terms of research and innovation, our college is the region's premier computer, library, and information science hub for ICT innovation and research. Our exceptional faculty conduct innovative research in five areas of excellence: 1) artificial intelligence and data science; 2) software systems; 3) networked systems and their security; 4) the impact of digital technology on records management in libraries, museums, and archives; and 5) learning, policy, and information-seeking behavior in health, agriculture, ICT, land, law, and finance.

In terms of teaching and learning, our two excellent schools (the School of Computing and Informatics Technology and the East African School of Library and Information Science) have robust undergraduate programs that include four flagship programs: Bachelor of Science in Computer Science, the Bachelor of Sciences in Software Engineering, Bachelor of Information Systems and Technology, and Bachelor of Library and Information Science. We take great pride in providing these hallmark educational programs. Our programs continue to attract qualified students for consideration and admission to Makerere University. Our

incredible undergraduate programs attract the top ten percent (top tier) of students nationwide.

The college currently employs a fantastic faculty that was educated at Makerere University and other prestigious universities in the USA, Europe, and Asia. With their strength and diversity, our faculty is prepared to lead us to success in the knowledge-based economy of the twenty-first century.

I am really proud to have contributed to this incredible journey, which has now resulted in the establishment of over six state-of-the-art research labs at the College with a strong ability to create new tools and knowledge to help Makerere University achieve its Strategic Goals. As of right now, our college has helped to trigger a spinoff of a number of technology start-ups, most of which are based in Kampala but are also spreading to other Ugandan cities and abroad. Our students are able to secure jobs in Google, Facebook, and other tech companies both domestically and abroad. We are also winning global competitions provided under the leadership of Huawei Technology. Other graduate students are now accepted to prestigious colleges in the USA, Europe, or Asia to pursue graduate studies.

PROF. TONNY J. OYANA
College Principal



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1.0 INTRODUCTION

This section provides an overview of the College of Computing and Information Sciences (CoCIS) at Makerere University, detailing its establishment, structure, and academic mandate. It highlights the College's two schools SCIT and EASLIS along with their respective departments, programs, and contributions to teaching, research, and consultancy. Additionally, it presents CoCIS's vision, mission, core values, and leadership, reflecting its commitment to excellence, innovation, and the development of skilled professionals who drive societal transformation.

1.1 The College of Computing and Information Sciences (CoCIS)

Makerere University, College of Computing and Information Sciences (CoCIS) is the main ICT training, research and consultancy Centre in Makerere University and the region. The University Council established it on 1st February 2011 through the merge of the Faculty of Computing and Informatics Technology (CIT) and the East African School of Library and Information Sciences (EASLIS). The College has two schools with six academic departments.

1.2 The School of Computing and Informatics Technology (SCIT)



The School of Computing and Informatics Technology (SCIT) is Makerere University's ICT center that focuses on providing students with knowledge, skills, and expertise in computing and informatics technology. The school is committed to developing an optimal environment for teaching and learning that will enable it to achieve its primary aim. It offers a wide range of programs, including doctoral, master's, postgraduate, and bachelor's degrees. Throughout the last decade, the school's grant, research, and teaching portfolio has significantly grown, with remarkable results in teaching outputs, grant funding, and research outcomes that influence public policy and prepare a relevant and productive workforce for a knowledge-based economy. SCIT has four departments: Department of Computer Science, Department of Networks, Department of Information Technology, and Department of Information Systems through which implements its goals and ambitious strategy of success.

1.3 The East African School of Library and Information Science (EASLIS)



This school was founded in 1963 and is well-known for pioneering the training of Librarians and Information Scientists in East Africa, who have tirelessly served in many positions throughout the social strata. School programs began with certificate and diploma levels, which were ultimately expanded to degrees and postgraduate courses. Currently, the School offers Bachelor's, Masters', and Ph.D. degrees in Information Science, producing a diverse range of skilled professionals with competencies in Library Science, Records and Archive Management, Digital Libraries and Repository Managers, System analysts, Researchers, Information

Literacy facilitators and trainers, Publishers, and others. EASLIS features two major departments: the Department of Records and Archives and Department of Library Sciences. Each department is involved in teaching, supervising field attachments, doing research, consulting, and outreach initiatives in its particular sub-disciplines, all of which support our ambitious College plans to prepare students to purposefully fit into a rapidly changing and demanding information economy.

EASLIS has pioneered the training of Librarians and Information Scientists in the East African region who have diligently served in different capacities across the social stratum. School programs started from Certificate and Diploma levels that later were upgraded to Degrees and Post Graduate studies. Currently, the School offers Bachelors, Masters' Degrees (both in Library science and Records and Archives management) and Ph.D. in Information Science, producing a range of skilled professionals with competencies in Library Science, Records and Archive Management, Digital Libraries and Repository Managers, System analysts, Researchers, Information Literacy facilitators and trainer Publishers, among others.

1.4 Vision, Mission and Core values



1.5 College Leadership

Table 1

Principals, Deans and Heads of Departments



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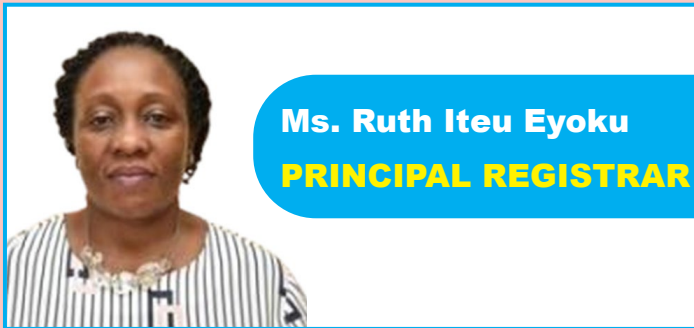
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PRINCIPAL REGISTRAR



Mr. Julius Lebo

**PRINCIPAL HUMAN
RESOURCE OFFICER**



2.0 TEACHING AND LEARNING

This section highlights CoCIS's achievements in teaching and learning during the 2025/2026 academic year. It presents the range of programs offered across undergraduate, graduate, and doctoral levels, student enrollment and orientation initiatives, graduation outputs, innovations in teaching, and curriculum reviews. The section demonstrates the College's commitment to academic excellence, practical skills development, and producing graduates who are well-equipped to contribute meaningfully to the computing and information sciences sector.

2.1 Programs Offered at SCIT

SCIT offers a total of 17 programs across Bachelor's, Master's, PhD, and Postgraduate levels. The programs offered include:

1. Bachelor of Science in Computer Science
2. Bachelors in Software Engineering

3. BSc. Data Communications and Software Engineering (New)
4. Bachelor of Information Systems and Technology
5. Master of Science in Computer Science
6. Master of Science in Information Systems,
7. Masters in Information Technology (MIT)
8. Masters in Data communication and Software Engineering
9. Master of e- Governance Technologies and Services (New)
10. Post graduate diploma in Data communication and Software Engineering
11. Post Graduate Diploma in Information Technology (PGDIT).
12. Postgraduate Diploma in Information Systems,
13. Postgraduate Diploma in Computer Science
14. PhD in Software Engineering.
15. PhD in Computer Science.
16. PhD in Information Technology (Ph.D. in IT)
17. PhD in Information Systems

2.2 Programs are Offered at EASLIS

EASLIS functions as a regional training institution for Library and Information Science, equipping students with the skills needed to work in various information institutions such as libraries, archival institutions, registries, records offices, publishing houses, book distribution centers, documentation centers, information centers, resource centers, and more. During the year under review, EASLIS offered;

- ※ Bachelor of Library and Information Science (BLIS)
- ※ Bachelor of Records and Archives Management (BRAM)
- ※ Master of Science in Information Science (MSC.INF.SCI)
- ※ Master of Science in Records and Archives Management (MSC.RAM)
- ※ Doctor of Philosophy in Information Science (PhD INF. SCI)

2.3 Students' Enrolment

The college has a total enrollment of 2,572 students for the academic year 2025/2026. Out of these, 2,272 students are fully registered, while 300 students are not registered.

Table 2**Enrollment Statistics by Program and Year**

Programme Title	Study Year	Enrolled Stud...	Provisio nally
Doctor of philosophy (school of computing and Information technology)	Year 1	1	0
Doctor of philosophy (school of computing and Information technology)	Year 4	1	0
Doctor of philosophy (school of computing and Information technology)	Year 5	1	0
Phd in computer science	Year 3	1	0
Master of science in information systems	Year 1	1	0
Doctor of philisophy (school of computing and Informatics technology)	Year 1	1	0
Bachelor of science in software engineering	Year 1	1	0
Postgraduate diploma in data communication and software engineering	Year 1	1	0
Bachelor of science in software engineering	Year 2	112	0
Bachelor of science in computer science	Year 2	127	0
Msc. In records and archives management	Year 2	13	0
Bachelor of science in software engineering	Year 3	152	0
Bachelor of science in software engineering	Year 1	154	0
Bachelor of science in computer science	Year 3	157	0
Bachelor of library and information science	Year 2	187	0
Bachelor of science in computer science	Year 1	189	0
Bachelor of library and information science	Year 3	190	0
Bachelor of records and archives management	Year 3	2	0
Phd in information systems	Year 2	2	0
Bachelor Of Information Technology	Year 3	2	0
Doctor of philosophy in records and archival science	Year 1	2	0
Phd in computer science	Year 1	2	0
Phd in computer science	Year 1	2	0
Doctor of philosophy in software engineering	Year 1	2	0
Bachelor of library and information science	Year 1	152	0
Master of science in computer science	Year 2	28	0

Bachelor of information systems and technology	Year 3	0	291
Phd in information science	Year 3	0	3
Doctor of philosophy (school of computing and Information technology)	Year 2	0	3
Master of information technology	Year 2	0	30
Master of science in information science	Year 2	0	34
Master of science in information systems	Year 2	0	36
Bachelor of information systems and technology	Year 1	0	362
Master of science in computer science	Year 1	0	37
Phd in information science	Year 1	0	4
Bachelor of information systems	Year 3	0	4
Phd in information technology	Year 1	0	4
Doctor of philosophy (east african school of library and information science)	Year 1	0	4
Master of science in information science	Year 1	0	42
Phd in information science	Year 2	0	5
Master of e-governance technology and services	Year 1	0	6
Bachelor of science in software engineering	Year 4	0	65
Postgraduate diploma in computer science	Year 1	0	7
Msc. In records and archives management	Year 1	0	8
Phd in information systems	Year 1	0	8

2.4 Fresher's Orientation for Academic Year 2025/2026

Dr. Peter Nabende handing over a gift-pack to one of the students who won an information challenge during the orientation



The College held an orientation session for undergraduate first-year students, focusing on academic excellence and success. The purpose of the orientation was to help freshers transition smoothly into university life and to equip them with the necessary tools and resources to succeed. Over 800 students attended the session. During his remarks, Professor Tonny Oyana, the Principal of the College, encouraged the new students to prioritize their academic success and effective time management in their university journey. He emphasized, “University is fine. It’s not some hard stuff for professors or bright people. University is a lot of fun, but you must prioritize your academic success.”

Overall, the orientation served as a valuable opportunity for freshers to learn about the college’s expectations, policies, and support services. With its strong emphasis on academic success and student support, CoCIS is well-positioned to produce graduates who are prepared to make a positive impact in their respective fields.

2.5 Graduation output 2025



Some of the PhD Graduands from CoCIS during the 75th Graduation

2.5.1 700 Graduate at the Mak 75th Graduation



CoCIS master graduands in the freedom square stand as their names are read during the 75th Graduation

The college presented a total of 681 graduands at the 75th Graduation ceremony, presided over by Dr. Crispus Kiyonga, the Chancellor. The breakdown of graduands is as follows:

- ※ Doctoral Candidates: 12 (7 females and 5 males)
- ※ Masters Candidates: 73 (26 females and 47 males)
- ※ Bachelors Candidates: 596 (251 females and 345 males)

During the ceremony, the Vice Chancellor celebrated the College of Computing and Information Sciences (CoCIS) for its notable achievements, including three students who received the Africa 2024 Marketplace Simulation Award at the AFRICA2024 Conference in Egypt.

2.5.2 71 Graduate under India Uganda e-VBAB & Amity University Collaboration



Graduands and the college management team in a group photo

CoCIS graduated 71 students under Phase 2 of the e-VBAB Project, a collaboration between Amity University in India and Makerere University. The ceremony, held at Block B CoCIS, was presided over by Principal Prof. Tonny Oyana on behalf of the Vice Chancellor.

The program, funded by the Government of India, offered 100 percent scholarships to Ugandan students through the Pan-African e-Network Project, which provides tele-education and tele-medicine services across 48 African countries. Uganda signed onto the initiative in 2019, and more than 1,700 Ugandan students have benefited since its inception.

2.6 Innovations in Teaching

Mr. Marvin Galiwango an Assistant lecturer in the Department of Computer Sciences Launched a Bi-annual conference: <https://logicfutures.com/>, aimed and showcasing innovative products derived from Competency-based Teaching, Learning and product-based education of computer Science data education courses.

2.6.1 E-Learning

In 2025, the College significantly advanced e-Learning initiatives to support teaching and Learning. Throughout the year, we actively coordinated various e-learning activities, focusing on developing a strong blended learning environment. Key initiatives included updating and creating new courses on the MUELE platform, providing wide-ranging training for students and staff, and delivering continuous technical support to ensure smooth implementation of blended learning.

E-learning has played a crucial role in the College's teaching strategies. Integration of digital tools with traditional teaching methods led to successful student enrolment processes, widespread integration of digital learning tools with traditional classroom instruction, continuous access to course materials, and effective online assessments.

Throughout the year, we have witnessed increased student engagement and improved teaching effectiveness due to the support provided by the college's e-learning team.



E-learning Coordinator training first year Students of SCIT on 13th August 2025 in Lab 4 Block B



*First Year Students of SCIT E-Learning Training on
13th August 2025 in Lab 4 Block B*

2.6.2 Field Attachment and Internship Programme

Our field attachment and internship programs remains on a positive path of successful skilling of students and providing them with a robust work experience that enables a smooth transition into the world of work.

2024/2025 Field Attachment (FA) program at CoCIS, EASLIS, involved 193 students who demonstrated strong performance with an average score of 82.18%, reflecting effective application of classroom knowledge in practical settings. A comprehensive orientation prepared students on professionalism, confidentiality, documentation, and workplace expectations, while active student engagement addressed concerns about placement logistics and supervision. Overall, the program successfully equipped students with practical skills, with recommendations emphasizing improved feedback, relevant placements, and addressing administrative challenges to further enhance learning outcomes.



The Field Attachment Coordinator at EASLIS Welcoming staff and students at the Orientation Workshop



EASLIS Students at the Workshop

In 2025, the internship program at the School of Computing and Informatics Technology (SCIT) demonstrated continued growth and improvement, with a total of 407 interns participating across various departments. The overall performance remained strong, with a mean score of 80.35%, reflecting effective supervision and well-structured placement environments. Remarkably, SCIT interns achieved higher average scores compared to previous years, indicating enhanced training and mentorship quality. The majority of placements were within regional organizations, with a few international internships that showcased the program's expanding global partnerships. with high-performing organizations to sustain and further improve internship outcomes in future cohorts.

2.7 Curriculum Review & Program Accreditation 2024 - 2025

2.7.1 Curriculum Review & Program Accreditation 2024 - 2025 in SCIT

During the academic year 2025 -2026, significant progress was made in the review and development of curricula and programs within the School of Computing and Information Technology (SCIT). All master's programs were submitted to the senate for approval and are currently being advertised for admission for the upcoming academic year 2026-2027. Additionally, a new Bachelor of Science program in Data Communications and Software Engineering has been proposed and submitted to the senate for approval to commence in 2026-2027. Furthermore, the Master of e-Governance Technologies and Services, a new program introduced in 2025, has already begun its operation, marking a step forward in expanding the college's academic offerings and aligning with emerging industry needs

2.7.2 Curriculum Review & Program Accreditation 2024 - 2025 in EASLIS

The Bachelor of Records and Archives Management has been phased out. Moving forward, EASLIS will offer a total of five programs, both undergraduate and graduate, which will be advertised for the 2026/2027 academic year.

The Department of Library and Information Sciences will offer three programs:

- ⌘ Bachelor of Library and Information Science (BLIS)
- ⌘ Master of Science in Information Science (MISC)
- ⌘ PhD in Information Science (PISC)

The Department of Archives and Records Management will offer two programs:

- ⌘ Master of Science in Records and Archives Management (MRM)
- ⌘ PhD in Records and Archival Sciences (PRAS)

3.0. RESEARCH, PROJECTS & OUTPUTS

This section highlights the College's research achievements, innovative projects, and scholarly outputs during the review period. It details key grants and funded initiatives, active research groups, technological innovations, and publications that showcase the College's role as a leader in advancing knowledge, applying artificial intelligence, digital health, environmental monitoring, and inclusive technologies. The section underscores CoCIS's impact in generating practical solutions that address societal challenges, foster entrepreneurship, and contribute to national and regional development.



3.1 Key Grants and Projects

CoCIS has successfully secured multiple research grants through competitive proposal writing. These grants not only supplement the university's resource envelope but also enhance human resource capacity and support cutting-edge research.

Table 3**List of Grants Received for Research**

Name of Project	Funder & Country	PI Name	Project Period	Currency	Budget Amount
Managing Hub for Artificial Intelligence for Sexual and Reproductive Health in Africa: AI4MSRH Hub	IDRC (Canada)	Assoc. Prof. Engineer Bainomugisha	1 st Nov 2021 - 31 st Oct 2024	USD	137,867
Clean Air for Healthier Cities: Scaling up	US Department of State	Assoc. Prof. Engineer Bainomugisha	30 th Sept 2022 - 30 th Sept 2025	USD	478,835.60
Participatory and Collaborative Monitoring, Modelling, and Advocacy for Air Quality Management	-	-	-	-	-
Scaling up AirQo to African Cities	Google (USA)	Assoc. Prof. Engineer Bainomugisha	2 ^{3rd} Nov 2021 - 31 st July 2025	USD	3,000,000
Crane Cloud	Paul Maritz (USA)	Assoc. Prof. Engineer Bainomugisha	25 th June 2018	USD	3,000,000
Establishing DeepMind AI Scholarships at Makerere University	DeepMind Technologies (UK)	Assoc. Prof. Engineer Bainomugisha	May 2023 - 2024	USD	93,980
AirQount: Autonomous Vehicle Emissions Estimation for Low-Resource Cities	Arm Limited (UK)	Assoc. Prof. Engineer Bainomugisha	25 th June 2024 - 30 th June 2025	USD	249,900
Google Research Awards	Google LLC (USA)	Assoc. Prof. Engineer Bainomugisha	-	USD	100,000

Leveraging Data Science Applications to Improve Children's Environmental Health in Sub-Saharan Africa (DICE)	NIH	Assoc. Prof. Engineer Bainomugisha	Sept 2023 - Aug 2026	USD	98,508
Benchmarking Automatic Speech Recognition Models for African Languages	Bill & Melinda Gates Foundation	Dr. Joyce Nakatumba Nabende	21 st March 2024 - 31 st March 2025	USD	249,400
TWAS-UNESCO (SG-NAPI)	UNESCO	Dr. Joyce Nakatumba Nabende	-	USD	9,100
RTB Breeding: A Consolidated Environment	International Potato Center (Peru)	Dr. Joyce Nakatumba Nabende	16 th Dec 2023 - 31 st Dec 2024	USD	56,923
RTB Cassava Breeding	International Potato Center (Peru)	Dr. Joyce Nakatumba Nabende	1 st Jan 2023 - 31 st Dec 2024	USD	40,000
Applied Human-Machine Intelligence in East Africa (AHUMAIN)	European Union / Erasmus Program	Dr. Joyce Nakatumba Nabende	1 st Jan 2023 - 31 st Dec 2025	EUR	141,142
Understanding Gender Biases in Building Automatic Speech Recognition Systems in Africa (GRAIN)	IPAR (Senegal)	Dr. Joyce Nakatumba Nabende	1 st Aug 2023 - 30 th Nov 2024	USD	-
Project Amplify - Improving AI through Community-Based Feedback	Google LLC	Dr. Joyce Nakatumba Nabende	Sept 2023 - July 2024	USD	200,000
Analyzing ChatGPT for Cross-Lingual Agricultural Advisory for Smallholder Farmers	Bill & Melinda Gates Foundation	Dr. Joyce Nakatumba Nabende	10 th July 2023 - 30 th April 2024	USD	150,000

Extrapolating Counts from Open Buildings with Sentinel-2	Google Research Collabs Africa	Sanya Rahman	-	USD	35,000
Waxal Project Partnership (Google Voices)	Google LLC	Dr. Joyce Nakatumba Nabende	July 2023 - April 2024	USD	345,000
Waxal Project Partnership (Google Voices)	Google LLC	Dr. Joyce Nakatumba Nabende	July 2023 - April 2024	USD	345,000
OCULAR: AI Automated Mobile Microscopic Diagnosis of Malaria, Cancer & Tuberculosis	Google (USA)	Dr. Rose Nakasi	Sept 2023 - 2026	USD	1,500,000
Pathways to Change: Gender Justice in STEM Research (GeJuSTA)	University of Cape Town (South Africa)	Ms. Ssozi Fiona Catherine	1 st Jan 2022	ZAR	178,046
AFRETECH	Carnegie Mellon University Africa	Assoc. Prof. Engineer Bainomugisha	1 st Aug 2023 - 31 st May 2026	USD	79,695
Epilepsy	Makerere University College of Health Sciences	Dr. Daudi Jjingo	1 st July 2023 - Dec 2024	USD	11,000
Adaptive Environmental Monitoring Network for East Africa (AdEMNEA)	NORHED II	Dr. Julianne Sansa Otim	1 st July 2022 - 30 th June 2026	NOK	9,359,490
Improving Machine Translation for Informal Usage of Ugandan Languages	Google LLC (USA)	Dr. Peter Nabende	1 st Nov 2023 - 30 th Oct 2024	USD	30,000
RIF	-	Dr. Namatovu Hasifah	2023 - 2024	UGX	493,157,714
Enhancing Groundnuts Value Chain Information Management Using SUFACE Model	RIF	Dr. Drake Patrick Mirembe	2023 - 2024	UGX	169,622,000

Data Science Without Borders	APHRC (Kenya)	Dr. Joyce Nakatumba Nabende	1 st Aug 2024 - 31 st Dec 2026	UGX	336,186
RTB Breeding: Consolidated Investment (Cassava)	Bill & Melinda Gates Foundation	Dr. Joyce Nakatumba Nabende	1 st Jan 2024 - March 2025	UGX	85,386
RTB Breeding: Consolidated Investment (Sweet Potatoes)	Bill & Melinda Gates Foundation	Dr. Joyce Nakatumba Nabende	1 st Jan 2024 - March 2025	UGX	48,100
RTB Breeding: Consolidated Investment (NARO)	National Agricultural Research Organisation	Dr. Joyce Nakatumba Nabende	2 nd Oct 2024 - 31 st March 2025	UGX	19,900
Makerere University AI for Development Research Lab	IDRC (Canada) & FDCO	Dr. Joyce Nakatumba Nabende	1 st Oct 2024 - 30 th Nov 2026	UGX	574,900
AI4D - FDCO Innovation: Scaling AI for Health	IDI	Assoc. Prof. Engineer Bainomugisha	1 st Oct 2024 - 30 th Sept 2026	UGX	100,984

Research Group/ Lab/Center	Update on Research groups
Makerere AI Center	<p>On March 13, 2025 – The Department of Computer Science Makerere University officially launched the Makerere University Centre for Artificial Intelligence and Data Science (Mak-CAD), a hub dedicated to advancing AI research and innovation for Africa’s development. Themed “Building Responsible AI Research and Innovations for Impact,” the launch highlighted the Centre’s mission to harness AI’s transformative power to address critical issues, improve human development indices, and contribute to the UN Sustainable Development Goals (SDGs).</p> <p>https://news.mak.ac.ug/2025/03/makerere-launches-ai-and-data-science-centre-to-drive-africas-technological-development/</p>

3.3 Technologies and Innovations

This section highlights CoCIS's pioneering innovations and technology-driven solutions that address critical societal challenges in Uganda and beyond. It showcases student-led projects, AI-driven health and education platforms, inclusive technologies such as the digital Ugandan Sign Language Dictionary, and institutional initiatives like the Makerere AI Health Lab and Mak-CAD. The section also emphasizes applied research outputs from specialized labs, including the IoT-ra Lab, demonstrating the College's commitment to translating research into practical, impactful technologies.

3.3.1 Web-based platform for boosting Youth Entrepreneurship



Students with other competitors pose for a group-photo with the Minister for ICT and National Guidance Dr. Chris Baryomunsi (6th) after the award ceremony.

Students from CoCIS garnered significant recognition for their innovative projects in technology and entrepreneurship. A team of Year Two Software Engineering students Aita Joshua Prince, Joshua Wamani, and Jovia Minallah Matata won an award for developing a web-based platform aimed at boosting youth entrepreneurship in Uganda's West Nile region. The team participated in the Entrepreneurship Booster Platform Hackathon on September 10, 2025, at the Sheraton Hotel in Kampala, organized by Youth Empowerment and Participation in Policy and Development (YEPPAD).



Aita Joshua Prince, Joshua Wamani, and Jovia Minallah Matata represented Makerere University at the Entrepreneurship Booster Platform Hackathon, held on Wednesday, September 10th, 2025, at Sheraton hotel

Mentored by Dr. Joab Ezra Agaba, the students designed an interactive platform with features including a TikTok-style skills showcase, interest-based guilds, job postings, and accessibility tools for persons with disabilities. One of the platform's standout components is an AI-powered chatbot that helps users make informed decisions about their business and career paths. The project addresses key issues faced by Ugandan youth, such as unemployment and limited access to mentorship.

Although the team finished third behind ISBAT and Muni University, they were awarded a bag and an MTN MiFi device with 17GB of data. Dr. Agaba praised the students for combining technical innovation with social awareness, creating a platform that could drive positive change for young people in Uganda.

3.3.2 Floral Intel an AI-driven Health Platform



In another remarkable achievement, Christine Kikome, a finalist in the Bachelor of Science in Computer Science program at CoCIS, won the prestigious Best Pitch Award at the Africa Innovation Fellowship (AIF) bootcamp held in Johannesburg, South Africa. Kikome received a prize of R10,000 for her project, FlorallIntel, an AI-powered digital health and education platform that identifies medicinal plants and preserves indigenous knowledge.

Christine Kikome Pitching FlorallIntel during the bootcamp in South Africa



Kikome's FlorallIntel project, developed with fellow students Geoffrey Okumu, Emmanuel Wagisha, and Gerald Obote, uses computer vision and machine learning to classify medicinal plants, while also connecting users with certified herbalists. The platform seeks to bridge the gap between traditional herbal medicine and modern healthcare. It also creates a digital database to preserve indigenous knowledge that has been passed down orally. Kikome plans to scale the project into a mobile app and expand it across Africa. Additionally, she aims to collaborate with institutions like the National Drug Authority and the Uganda Registration Services Bureau to ensure the platform's credibility.

Both Kikome's recognition at the AIF and the Software Engineering team's success at the hackathon underscore Makerere University's commitment to nurturing innovative solutions that address pressing societal challenges in technology, health, and entrepreneurship.

3.3.3 A digital Ugandan Sign Language Dictionary



Assistant lecturer Mr. Marvin Ggaliwango developed A digital Ugandan Sign Language Dictionary for co-creating sign language products and translation services Assistant Lecturer Mr. Marvin Ggaliwango, a Machine Learning and Intelligent Systems Engineer at the Department of Computer Science , has developed a digital Ugandan Sign Language (USL) Dictionary as a foundational tool for co-creating sign language products and translation services aimed at improving communication for the Deaf and Hard of Hearing (DHH) community. His work integrates Artificial Intelligence with inclusive design principles, strongly emphasizing co-creation by actively

involving persons with disabilities in the design and development of technologies intended for their use. The digital dictionary underpins advanced sign language processing initiatives such as SignNet II, which supports bidirectional sign-to-text and text-to-sign translation using keypoint-based pose features to achieve high accuracy. Additionally, his research contributes to the development of accessible, real-time mobile translation applications for everyday use of USL. Beyond technical innovation, Mr. Ggaliwango provides institutional leadership as Chairperson for Staff with Disabilities at Makerere University and as a Commonwealth Scholar at the University of Leeds, where he researches the intersection of artificial intelligence and inclusive policy, positioning the digital dictionary as a critical resource for future technological innovation in sign language accessibility.

3.3.4 Makerere AI Health Lab Champions Artificial Intelligence in Uganda's Malaria Fight

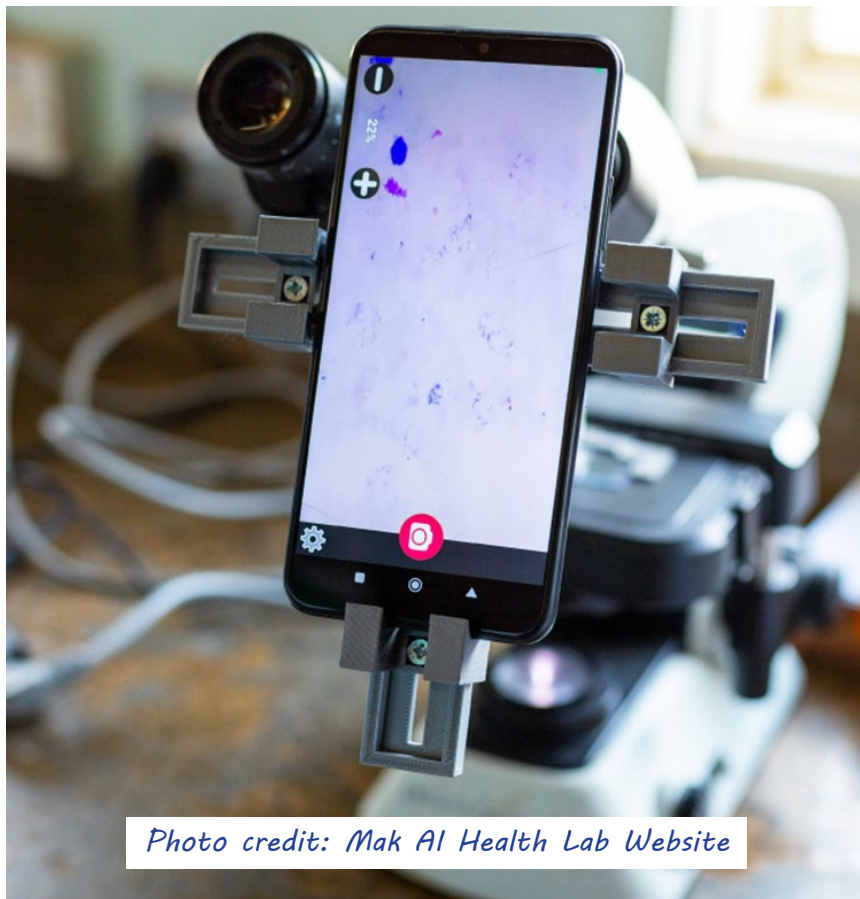


Photo credit: Mak AI Health Lab Website

As Uganda continues to face a heavy malaria burden, Makerere University is leveraging Artificial Intelligence (AI) to transform disease diagnosis, surveillance, and control. While global and national efforts have made progress, gaps remain in accurate diagnosis, timely reporting, and community engagement especially in low-resource areas. AI-powered tools are being explored to enhance diagnostic accuracy, strengthen real-time surveillance, and provide data-driven insights for policy and interventions, with particular focus on feasibility, impact, and scalability in resource-constrained settings.

AI for Diagnosis: The Ocular Project

The Ocular Project has developed a 3D-printed adapter that converts standard microscopes and smartphones into AI-powered diagnostic tools. These tools allow health workers to capture blood smear images and detect malaria parasites with expert-level accuracy. Traditional microscopy is time-consuming and relies heavily on skilled personnel, often leading to overwork and errors. The Ocular system automates parasite detection, reduces burden on lab technicians, and facilitates large-scale data collection for predictive health interventions.



*Photo credit:
Mak AI Health Lab Website*

Real-Time Surveillance and Ecosystem Intelligence

Beyond diagnosis, AI is being used to address delayed malaria surveillance data. In many rural areas, manual reporting creates lags that hinder outbreak response. The Ocular system integrates real-time data into Uganda's Health Management

Information Systems (HMIS). By incorporating environmental factors like mosquito breeding patterns, rainfall, humidity, and ITN coverage, AI models can forecast outbreaks more accurately and guide geographically targeted interventions. Collaboration with environmental health experts and net distribution teams ensures contextualized, actionable insights for the Ministry of Health.

Bringing AI to the People: Multilingual Chatbots and Community Engagement.

Recognizing the importance of public understanding, Makerere AI Health Lab is developing AI-powered chatbots and medical translation tools in local languages. These platforms educate communities on malaria prevention, symptoms, treatment, and the role of AI in healthcare. By being culturally aware and community-facing, the tools foster trust, awareness, and empower individuals to seek timely care.

3.3.4 AI and Data Science Centre Launched to Drive Africa's Technological Development

On March 13, 2025 the college launched the Makerere University Centre for Artificial Intelligence and Data Science (Mak-CAD), a hub dedicated to advancing AI research and innovation for Africa's development. The launch, themed "Building Responsible AI Research and Innovations for Impact," emphasized the Centre's mission to harness AI to address critical challenges, improve human development indicators, and support the UN Sustainable Development Goals (SDGs).



Dean School of engineering, PI Dr. Joyce Nakatumba, Prof Tonny Oyana, VC Prof. Barnabas Nawangwe, HE Tiffany Kirlaw, Prof Moses Musinguzi and Director DRGT Prof. Robert Wamala after the official launch of the Mak CAD center.

Mak-CAD aims to leverage AI for sectors including healthcare, agriculture, natural language processing, and climate action, guided by Responsible AI principles. Its objectives include advancing AI research, training MSc and PhD students, improving data quality, building local expertise, and integrating AI into policy. The Centre will operate through two research labs: the Makerere Artificial Intelligence Lab (Department of Computer Science, College of Computing and Information Sciences) and the Marconi Machine Learning Lab (Department of Electrical and Computer Engineering, College of Engineering, Design and Art).



Dr. Joyce Nabende

Spearheaded by Dr. Joyce Nabende and funded by the International Development Research Centre (IDRC) Canada and the UK Foreign, Commonwealth & Development Office, Mak-CAD collaborates with partners such as Wellcome, Google, NIH, APHRC, and the International Institute of Tropical Agriculture (IITA).

3.3.5 IoT-ra Lab Secures Copyrights for Four Innovative Software Solutions

Makerere University's Internet of Things - Research and Application (IoT-ra) Lab secured copyrights for four innovative software solutions developed under the WIMEA-ICT project, marking a significant milestone in the lab's technological advancement efforts. The software covering weather information dissemination system (WIMEA-ICT Weather Information Dissemination System); weather data repositories (WIMEA-ICT Weather Data Repository ; AWS condition monitoring system(Conditions Monitoring System for the AWS) and AWS Firmware (WIMEA-ICT AWS Firmware were officially registered with the Uganda Registration Services Bureau. Under the leadership of Dr. Julianne Sansa-Otim, the lab's solutions have been deployed across Uganda and other African countries, contributing to improved weather monitoring and data management in the region.

3.4 Staff Publications

3.4.1 Books

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4.0 COLLABORATIONS AND PARTNERSHIPS

This chapter highlights the College's commitment to advancing research, innovation, and capacity building through strategic national and international partnerships. By engaging with global institutions, industry leaders, and peer universities, the College fosters knowledge exchange, collaborative projects, and student development, strengthening its impact and visibility in science, technology, and innovation.

4.1 Key collaborating institutions

- ♣ Bill & Melinda Gates Foundation
- ♣ UNESCO International Potato Center (Peru)
- ♣ International Potato Center (Peru)
- ♣ European Union / Erasmus Program
- ♣ IPAR (Senegal)
- ♣ Google Research Collabs Africa
- ♣ Bill & Melinda Gates Foundation
- ♣ University of Cape Town (South Africa)
- ♣ Government of Uganda
- ♣ Carnegie Mellon University Africa
- ♣ Makerere University College of Health Sciences
- ♣ NORHED II
- ♣ Bill & Melinda Gates Foundation
- ♣ Google LLC (USA)
- ♣ RIF
- ♣ APHRC (Kenya)
- ♣ Bill & Melinda Gates Foundation
- ♣ Bill & Melinda Gates Foundation
- ♣ National Agricultural Research Organisation
- ♣ IDRC (Canada)
- ♣ IDI
- ♣ EASLIS/MAKERERE -
- ♣ Vilnius University, Faculty of Communication in Lithuania since January 2025. We have staff mobility.
- ♣ EASLIS/MAKERERE –University of South Carolina Collaboration since June 2025 and currently we have co-teaching arrangements this semester II 2025/2026
- ♣ EASLIS/MAKERERE – University of Boras in Sweden since 2019 We have co-supervision, staff mobility and student mobility exchange. Recently EASLIS had the Heads of Department and PhD student for the mobility in November

- 2025 (from 3rd to 14th November)
- ♣ EASLIS/ MAKERERE – collaborations with ERA Electricity Regulatory Authority, UCC Uganda Communications Commissions, ministry of Public Service and Parliament of Uganda

4.2 Highlights of some of the national and international Agreements

4.2.1 Trento and Makerere University MoU to establish DataScientia network

MoU between the University of Trento and Makerere University signed in April 2024 was operationalized in 2025 to establish a network called DataScientia whose ultimate aim is the creation of a grassroots community centered around the development and dissemination of a unitary knowledge –driven understanding of the peoples diversity as it is represented by the data on the internet. The mission of DataScientia is to study, understand, compare, unify and empower the diversity of people how it appears on the internet. The vision is that knowledge generated will enable a more open, inclusive and better society while at the same time paving the way to the understanding of the unity which provides the substrate of our existence. The approach is computational with a leading strong interdisciplinary dimension. Under this agreement a cohort of 17 students completed a training of eight weeks held in the smart classroom.

Lead Person/Team	Partnership	Details
Michael Kizito	DataScientia Consortium with University of Trento, Italy	https://datascientia.disi.unitn.it/
Michael Kizito	Patron, AWS Cloud Club, Makerere University	https://www.meetup.com/aws-cloud-club-at-makerere-university/
Michael Gallagher, University of Edinburgh Marvin Ggaliwango, Makerere University	Co-Principal Investigator at The Centre for Research in Digital Education, The Moray House School of Education and Sport at the University of Edinburgh	Google Academic Research Award (GARA, 2024), Responsible Generative AI for Accelerated Competency-Based Teacher Training in Fragile Contexts (RGAI-FCT)

5.0 HUMAN RESOURCES

This chapter provides an overview of the College's staffing, highlighting both academic and non-academic personnel, their distribution across departments, and ongoing human resource developments. With a total staff of 112, 82 academic and 30 non-academic, the College maintains a range of ranks from Assistant Lecturer to Professor, supported by administrative and technical personnel. During the reporting period, several promotions, new appointments, confirmations, and resignations took place, reflecting ongoing efforts to strengthen capacity and retain talent. Staff achievements have also been recognized at national, regional, and international levels, demonstrating the College's commitment to excellence, professional growth, and scholarly impact.

5.1. Staff distribution by rank

No.	Rank	Total
1	Professors	3
2	Associate Professors	5
3	Senior Lecturers	13
4	Lecturer	35
5	Assistant Lecturer	26
6	Administrative and support staff	30
TOTAL		112

5.2 Status of Staffing in CoCIS

DEPARTMENT	POST	ESTABLISHMENT	FILLED	VACANT
Administration	College Principal	1	1	0
	Deputy Principal	1	1	0
	Administration Secretary	1	1	0
	Assistant Administration Secretary	3	0	3
	Grants Officer	1	1	0
	Technician	1	1	0
	Laboratory Attendant	11	9	1

	Assistant Inventory Management Officer	1	0	1
	Records Assistant	1	1	0
	Chief Custodian	1	2	0
	Custodian	3	2	1
	Lecturer Room Attendant	15	0	15
	Office Attendant	8	10	0
	Driver	2	1	1
Department of Computer Science	Professor	10	1	9
	Associate Professor	12	0	12
	Senior Lecturer	19	4	15
	Lecturer	27	4	23
	Assistant Lecturer	28	5	23
	Stenographer Secretary	1	0	1
Department of Information Systems	Professor	4	0	4
	Associate Professor	4	3	1
	Senior Lecturer	6	3	3
	Lecturer	12	6	6
	Assistant Lecturer	14	5	9
	Stenographer Secretary	1	0	1
Department of Information Technology	Professor	6	0	6
	Associate Professor	12	0	12
	Senior Lecturer	18	3	15
	Lecturer	36	11	25
	Assistant Lecturer	28	5	23
	Stenographer Secretary	1	0	1
Department of Networks	Professor	4	0	4
	Associate Professor	4	1	3
	Senior Lecturer	6	5	1
	Lecturer	12	10	2
	Assistant Lecturer	12	1	11
	Stenographer Secretary	1	0	1

Department of Computer Science	Professor	4	1	3
	Associate Professor	4	1	3
	Senior Lecturer	4	2	2
	Lecturer	4	3	1
	Assistant Lecturer	28	5	23
	Stenographer Secretary	1	0	1
Department of Library and Information Science	Professor	4	1	3
	Associate Professor	4	0	4
	Senior Lecturer	4	2	2
	Lecturer	8	2	6
	Assistant Lecturer	9	7	2
	Stenographer Secretary	1	0	1

5.2 Staff promotions, new appointments, resignations and retirements

5.2.1 Staff promotions

- ※ Dr Emmanuel Lule Department of Computer Science was promoted to Lecturer
- ※ Assoc. Prof. Engineer Bainomugisha was promoted to full Professor effective 4th February 2025
- ※ Kutyamukama Alice Gitta Department of Library and Information Sciences was promoted from Assistant Lecturer to Lecturer
- ※ Dr. Florence Nameere Kivunike Department of Information Technology was promoted to Senior Lecturer effective 4th February 2025
- ※ Dr. Odong Steven Eyobu Department of Networks was promoted to Senior Lecturer effective 5th February 2025
- ※ Dr. Mary Nalumansi, Department of Library and Information Sciences was promoted from Assistant Lecturer to Lecturer

5.2.2 New appointments

- ※ Dr. Lillian Muyama Department of Computer Science was appointed Assistant Lecturer effective 2nd February 2026

- ⌘ Mr. Brian Muchake Department of Computer Science was appointed on a 4 year contract as Assistant Lecturer effective 2nd February 2026
- ⌘ Ms. Hope Nahwera office of the Prince was appointed as Chief Custodian on a 4- year contract 2nd February 2026
- ⌘ Mr. Anold Kirumira Principals Office was appointed as Lab Attendant effective 24th February 2025

5.2.3 Confirmation into university service

- ♣ Ms. Shiphax Nsiimire office of the Principal was confirmed into university service effective 2nd February 2026
- ♣ Dr. Rose Nakasi Department of Information Technology was confirmed as Lecturer effective 2nd February 2026

5.2.4 Resignations

- * Dr. Nabuuto Lutaya Clement Department of Library and Information Science was promoted to Senior Lecturer on 5th February 2025 but resigned effective 30th August 2025. She was replaced by Dr. Kutyamukama Alice Gitta as Ag. Head.
- * Dr. Mark Magumba, a Lecturer in the Department of Information Systems resigned.

Table 4

The List of Staff

NO.	NAME	TITTLE
1	Prof. Tonny Oyana	Principal
Other College Units		
2	Mr. Julius Lebo	Principal Human Resources Officer
3	Ms. Franco Angida Mugyema	Accountant
4	Mr. Michael Hajusu	Assistant Accountant
5	Ms. Jane Anyango	Principal
6	Mr. David Ikomo	Procurement Officer
7	Mr. James Kisoro	Web Administrator
8	Ms. Clare Nata Musoke Bukenya	Senior Administrative Assistant
9	Ms. Dora Bampangana	Research Grants

10	Ms. Ruth Namusisi	
Registrar's Office		
11	Ms. Ruth Iteu Eyoku	Principal Registrar
12	Ms. Grace Apili	Assistant Registrar
13	Mr. Mathias Kabuye	Administrative
14	Mr. Samuel Kintu	Clerical Officer
Support Staff		
15	Ms. Hope Nahwera	Chief-Custodian
16	Mr. Victor Mujungu	Chief-Custodian
17	Mr. Richard Kananura	Custodian
18	Mr. Arthur Asiimwe Kampikaho	Custodian
19	Mr. Joseph Musisi	Driver
20	Ms. Shiphax Nsiimire	Office Attendant
21	Ms. Rehema Nalwadda	Office Attendant
22	Ms. Federesi Namutebi	Office Attendant
23	Ms. Prossy Ainomugisha	Office Attendant
24	Ms. Gorret Nantale	Office Attendant
25	Ms. Immaculate Sanyu	Office Attendant
26	Mr. Peter Byarugaba	Office Attendant
27	Mr. Joseph Afayo	Office Attendant
28	Ms. Jolly Mukasa	Office Attendant
29	Mr. Richard Kayiggwa	Office Attendant
30	Mr. Sulaiman Munyogoli	Security Guard
31	Mr. Arnold Kirumira	Lab. Attendant
32	Mr. William A. Kirunda	Lab. Attendant
33	Ms. Rebecca Kalyowa	Lab. Attendant
34	Ms. Sarah Amanyire	Lab. Attendant
35	Ms. Betty Kyeyune	Lab. Attendant
36	Ms. Christine Akankwasa	Lab. Attendant
37	Ms. Irene Tasumba	Lab. Attendant
38	Kiberu Alex	Lab. Attendant
39	Ms. Florence Nabatanzi	Lab. Attendant
40	Mr. Nicholas Betungye	Senior Assistant
41	Mr. Edward Zziwa	Technician
42	Ms. Christine Nanyonga	Records Assistant
Records and Archives Management		
43	Dr. Elisam Magara	Professor
44	Dr. David Luyombya	Assoc. Professor
45	Dr. Sylvia Namujuzi	Lecturer
46	Dr. Diana Kacunguzi Twinoburyo	Lecturer
47	Mr. Francis Ssekitto	Assistant Lecturer

48	Mr. Francis Ekwaro	Assistant Lecturer
49	Ms. Christine Kiconco	Assistant Lecturer
Department of Library and Information Sciences		
50	Dr. Constant Okello Obura	Professor
51	Dr. Sarah Birungi Kaddu	Senior Lecturer
52	Dr. Joyce Muwanguzi Bukirwa	Senior Lecturer
53	Dr. Alice Gita Kutyamukama	Lecturer
54	Dr. Mary Nalumansi	Lecturer
55	Ms. Lois Nankya Mutibwa	Assistant Lecturer
56	Ms. Ezerea Kulisooma	Assistant Lecturer
57	Mr. Aloysius Ssenono Mwanje	Assistant Lecturer
58	Mr. Richard Batte	Assistant Lecturer
59	Ms. Faridah Muzaki	Assistant Lecturer
60	Ms. Patience Agagirwe	Assistant Lecturer
61	Ms. Amanda Irene Birungi	Assistant Lecturer
Department of Information Systems		
62	Dr. Josephine Nabukenya	Associate Professor
63	Dr. Agnes Semwanga Rwashana	Associate Professor
64	Dr. Rehema Baguma	Associate Professor
65	Dr. Peter Nabende	Senior Lecturer
66	Dr. Agnes Nakakawa	Senior Lecturer
67	Dr. Emily Bagarukayo	Senior Lecturer
68	Dr. Mercy Amiyo	Lecturer
69	Dr. Peter Wakholi	Lecturer
70	Dr. Hasifah Kasujja Namatovu	Lecturer
71	Dr. Mark Abraham Magumba	Lecturer
72	Dr. Irene Arinaitwe	Lecturer
73	Dr. Grace Kobusinge	Lecturer
74	Ms. Fiona Catherine Ssozi	Assistant Lecturer
75	Mr. Jacob Katende	Assistant Lecturer
76	Mr. Paddy Asiimwe Junior	Lecturer
77	Mrs. Evelyn Kalenzi Asio	Assistant Lecturer
78	Mr. Brian Muchake	Assistant Lecturer
Department of Information Technology		
79	Dr. Evelyn Kigozi Kahiigi	Senior Lecturer
80	Dr. Fiona Penlope Tulinayo	Senior Lecturer
81	Dr. Florence Namere Kivunike	Senior Lecturer
82	Dr. Annabella Habinka Basaza	Lecturer
83	Dr. Halimu Chongomweru	Lecturer
84	Dr. Rose Nakasi	Lecturer
85	Dr. Moses Golooba	Lecturer

86	Dr. Raymond Mugwany	Lecturer
87	Dr. Alice Nandawula Mugisha	Lecturer
88	Dr. Hawa Nyende	Lecturer
89	Dr. Namirembe Esther	Lecturer
90	Dr. Innocent Ndiabatya	Lecturer
91	Dr. Margaret Nagwovuma	Lecturer
92	Dr. Emmanuel Mugejjera	Lecturer
93	Mr. Henry Mukalazi Serugunda	Assistant Lecturer
94	Mr. George Albert Bitwire	Assistant Lecturer
95	Ms. Flavia Namagembe Mwanje	Assistant Lecturer
96	Mr. Male Vincent	Assistant Lecturer
97	Komugisha Lillian	Assistant Lecturer
98	Dr. Benjamin Kanagwa	Assoc. Professor
99	Dr. Julianne Sansa Otim	Senior Lecturer
100	Dr. Joseph Balikuddembe	Senior Lecturer
101	Dr. Swaib Kaawaase Kyanda	Senior Lecturer
102	Dr. Drake Patrick Mirembe	Senior Lecturer
103	Dr. Steven Odong	Senior Lecturer
104	Dr. Johnson Mwebaze	Lecturer
105	Dr. Tonny Bulega	Lecturer
106	Dr. Moses Ntanda	Lecturer
107	Dr. Joab E. Agaba	Lecturer
108	Dr. Rashida Namisanvu	Lecturer
109	Dr. Bernard S. Muwonge	Lecturer
110	Dr. Ruth Mbabazi	Lecturer
111	Dr. Grace Kamulegeya	Lecturer
112	Dr. Mary Nsabagwa	Lecturer
113	Dr. Nasser Kimbugwe	Lecturer
114	Mr. Alex Mwotil	Assistant Lecturer
Department of Computer Science		
115	Dr. Engineer Bainomugisha	Professor / HOD
116	Dr. John Ngubiri	Senior Lecturer
117	Dr. Joyce Nabende Nakatumba	Senior Lecturer
118	Dr. Daudi Jjingo	Senior Lecturer
119	Dr. Alo Oluwaseun Olubisi	Visiting Senior
120	Dr. Michael Kizito	Lecturer
121	Dr. Rose Nakibuule	Lecturer
122	Dr. Marriette Atuhuriire Katarahweire	Lecturer
123	Dr. Emmanuel Lule	Lecturer
124	Mr. John Kizito	Assistant Lecturer
125	Mr. Swaib Dragule	Assistant Lecturer
126	Ms. Barbara Nansamba	Assistant Lecturer
127	Ms. Lilian Muyama	Assistant Lecturer
128	Mr. Marvin Ggaliwango	Assistant Lecturer

5.3 National, Regional and International Recognitions

LEAD PERSON/TEAM	RECOGNITION	DETAILS
Ggaliwango Marvin	Google Academic Research Award	https://research.google/programs-and-events/google-academic-research-awards/google-academic-research-award-program-recipients/?filtertab=2024

6.0 COMMUNITY OUTREACH & KNOWLEDGE TRANSFER PARTNERSHIPS

This chapter outlines the College’s efforts to extend research impact beyond academia through strategic engagement, partnerships, and practical innovation. Through high-level conferences, policy dialogues on data protection, collaborative public health webinars, and field deployment of AI-powered malaria tools, the College demonstrates its commitment to responsible, locally grounded, and impactful technology adoption. These initiatives reflect a strong focus on knowledge exchange, ethical practice, and sustainable solutions that strengthen health systems in Uganda and across Africa.

6.1 The 2nd AI in Health Africa Conference



The College, through the Mak AI in Health Lab, successfully convened the second annual Artificial Intelligence in Health Africa (AIHA) Conference at Makerere University on 6–7 November 2025, bringing together experts, policymakers, researchers, and healthcare innovators to examine AI-driven solutions tailored to Africa’s healthcare context. Held under the theme “Setting AI for Sustainable and Inclusive Health Systems in Africa,” the conference built on the inaugural event by emphasizing South–South collaboration, knowledge exchange, and the localization of AI within African health systems. Key deliberations addressed the integration of AI with indigenous knowledge systems, the management of linguistic and cultural diversity, and the alignment of AI technologies with existing healthcare tools to avoid fragmented solutions, alongside discussions on generative AI and sustainable business models for healthcare innovation. The conference keynote was delivered by the Minister for Science, Technology and Innovations, Dr. Monicah Musenero.



6.2 Engagement with Personal Data Protection Office on ICT and Privacy Law

The School of Computing and Informatics Technology (SCIT) at Makerere University hosted officials from the Personal Data Protection Office (PDPO) on September 18,

2025, for a hybrid session aimed at raising awareness of data protection laws among ICT students and researchers. Led by Acting National Personal Data Protection Director Baker Birikujja, the session focused on the practical application of Uganda's Data Protection and Privacy Act (2018) in areas such as artificial intelligence, research, and innovation, emphasizing responsible data handling and the legal and ethical implications of personal data use. Participants were introduced to the PDPO's mandate, key data protection concepts, and the six core principles of data protection accountability, lawfulness, minimality, retention, quality, and transparency anchored in the information security triad of confidentiality, integrity, and availability.

6.3 World Malaria Day webinar co-hosted by the Makerere AI Health Lab and the Malaria Consortium

For World Malaria Day 2025, Uganda hosted or participated in several webinars focusing on innovation, prevention and policy. Though significant strides have been made to end malaria, it remains a huge public health challenge in low- and middle-income countries. To mark World Malaria Day, this special webinar on 23 April 2025 with Makerere AI Health Lab and Ministry of Health, Uganda explored how AI could revolutionize disease detection, surveillance accuracy and intervention strategies and how these exciting emerging technologies could be integrated into existing health systems. Other webinars organized in partnership with other stakeholders explored different “Malaria Ends With Us: Reinvest, Reimagine, Reignite,” and activities highlighting the #OneWorldOneFight campaign. Key discussions involved strengthening prevention, AI integration for diagnosis, and advocating for sustained funding, with organizations like the Malaria Consortium, [IDRC Uganda](#), and Makerere University actively involved.

6.4 Field Evaluations Highlight Promise of AI-Powered Malaria Tools with Positive Health Worker Feedback in Uganda

Uganda is pioneering the use of artificial intelligence (AI) to transform malaria diagnosis, led by Makerere University's AI Health Lab through its Ocular Project. The AI tools can analyze blood smears and deliver results in under 60 seconds dramatically faster than traditional Rapid Diagnostic Tests (15 minutes) and standard

microscopy (25–30 minutes). Using widely available smartphones and 3D-printed adapters, the system captures and analyzes high-resolution images, helping address the persistent shortage of qualified laboratory technologists in rural areas. Field evaluations at Komamboga HC III, Kiruddu Hospital, Mulago National Referral Hospital, and Kasangati Health Centre confirmed the app performs well in moderate to high parasitemia cases, delivering parasite and WBC counts in about 8 minutes 20 seconds per slide, with each field of view processed in roughly 5 seconds.

While highly efficient in complex, high-density cases, the Ocular App was less effective at detecting low-level infections and early-stage parasites, leading to some false negatives, especially where slide quality was poor. Discrepancies in borderline cases, such as at Kiruddu Hospital, were linked to the AI's reliance on numerical thresholds rather than subjective human assessment. Recommendations include improving sensitivity to early-stage infections, retraining on missed cases, expanding species detection, and enhancing autofocus for poorly stained slides.

Healthcare workers praised the app for its efficiency, ease of use, and reduced workload. One lab technician said, "It's my first time to use it, but it has been wow. What you would take minutes figuring out under the microscope, the app does in a second just a click, and everything is done." Another added, "AI helps us detect malaria parasites and count white blood cells easily. I'm ready to start using it as soon as possible." A third noted, "Looking through a microscope for long periods causes eye problems. This app could phase that out it's a very easy approach and will help reduce our workload."

The AI models currently specialize in detecting *Plasmodium falciparum*, responsible for 97% of Uganda's malaria cases, with plans to expand to other species and parasite stages. Developed since 2014 with support from the Ministry of Health, the Ocular tools have demonstrated promising results despite training gaps and infrastructure challenges. Dr. Andama Fred from Mulago Referral hospital leading the initiative, emphasizes iterative improvements based on field feedback to ensure the system is reliable and adaptable for everyday use across diverse health facilities.

7.0 INFRASTRUCTURE DEVELOPMENT/ EQUIPMENT ACQUIRED

The college has state-of-the-art laboratories, digital libraries, computer centers, and research facilities. Modern lecture theatres, ICT-enabled classrooms, and innovation hubs support experiential learning and collaborative research. In the period under review, the college acquired:

- A network router and server under Platform and Testbed for Imported

- Observability of African Network (PATIO) project worth UGX 78,334,000
- A server under AHUMAN Project worth UGX 79,500,000
- 10 office reception chairs worth UGX 10,030,000
- IoT Sensors equipment under AHUMAN Project worth UGX 50,840,000
- Four computers under the DSWB Project worth 15,075,000
- Furniture for AirQo project worth 31,552,000

8.0 STUDENT'S SUPPORT AND WELFARE SERVICES

This chapter underscores the College's holistic commitment to student welfare, academic excellence, and career readiness. Through sustainable scholarship funding, merit-based support, and strategic industry partnerships, the College continues to create opportunities that ease financial barriers, reward high achievement, and strengthen graduate employability. These initiatives reflect a long-term investment in nurturing talent, promoting equity, and preparing students to contribute meaningfully to national and global digital transformation.

8.1 Endowment Fund to Support Excellence in Education, Research and Innovation



Prof. Tony Oyana, Dr. Rose Nakasi, Prof. Engineer Bionomugisha and Vice Chancellor Barnabas Nawangwe during the launch at Dinner

The College of Computing and Information Sciences (CoCIS) at Makerere University launched a permanent Endowment Fund on August 15, 2025, designed to provide sustainable financial support for student scholarships, research initiatives, and innovation. The launch took place during the CoCIS staff retreat at the Source of the Nile Hotel in Jinja, with Makerere University Vice Chancellor, Professor Barnabas Nawangwe, presiding over the event. The Endowment Fund aims to ensure long-term resources for CoCIS to maintain its leadership in technology and academics. It was established to address the growing number of academically capable students who struggle with tuition fees, while also promoting research among early-career faculty. The fund will help the college attract top talent, invest in cutting-edge infrastructure, and support continued technological advancement.



Prof. Barnabas Nawangwe Launches the CoCIS Endowment Fund late evening on 15th Aug 2025

The initiative is backed by a commitment to reinvesting funds generated from successful research grants. At the launch, three exceptional researchers—Dr. Rose Nakasi, Dr. Joyce Nakatumba Nabende, and Professor Engineer Bainomugisha—were recognized for their outstanding contributions to the Endowment Fund. They were honored for writing successful research proposals that have significantly bolstered the college’s resource pool.

The fund will support 18 students annually through four scholarship tiers: one student will receive a full scholarship of USD 2,000, two students will receive USD 1,500 each, five students will be awarded USD 1,000 each, and ten students will receive USD 500 each. The total annual investment in scholarships is USD 15,000, aimed at helping students from low socio-economic backgrounds. The scholarships are primarily for second- and third-year undergraduate students, with Software Engineering students eligible in their third or fourth year, provided they maintain a minimum CGPA of 3.6.

8.2 18 Students Awarded Scholarships from CoCIS Endowment Fund

In the wake of the Endowment Fund’s launch, the CoCIS Endowment Fund Board awarded scholarships to 18 deserving students for the 2025/2026 academic year. The scholarships were awarded during the Board’s inaugural meeting, held from October 23 to 24, 2025, at Protea Hotel in Entebbe.

Out of 54 initial applications, 22 were pre-vetted, and 18 were chosen after a thorough evaluation based on academic merit and financial need. The Board, chaired by Ms. Sheila Migereko, granted the top Category 1 award of USD 2,000 to Byali Maqueline Leya, a Software Engineering student. Two students, Businge Pamela (Library and Information Science) and Isingoma Edgar (Computer Science), received USD 1,500 each in Category 2. Five students, including Ggayi Edward, Katende Herman, and others, received USD 1,000 each in Category 3. The remaining ten students were awarded USD 500 each in Category 4. These scholarships highlight the college’s commitment to supporting high-potential students, fostering academic excellence, and empowering future innovator

8.3 Huawei Onboards Seven Makerere Graduates Under 2025 ICT Talent Development Initiative Begins six-month professional training

Huawei Technologies Uganda onboarded seven Makerere University graduates under its 2025 ICT Talent Development Programme, providing them with six months of intensive training to enhance their technical skills and prepare them for careers in the technology sector. The recruits, all from the College of Computing and Information Sciences, were selected during Huawei's campus recruitment in July 2025. Huawei aims to develop industry-ready professionals who can contribute to Uganda's digital transformation, whether they remain with the company or join other organizations.

The beneficiaries include:

- ⌘ **Kalibala Johnson** – Bachelor of Science in Software Engineering
- ⌘ **Ariyo Ahumuza Nimusiima** – Bachelor of Science in Software Engineering
- ⌘ **Mark Kavuma** – Bachelor of Science in Software Engineering
- ⌘ **Edward Kaboggoza** – Bachelor of Science in Computer Science
- ⌘ **Nshabirwe Kizzah** – Bachelor of Science in Computer Science
- ⌘ **Mukisa Jotham Prince** – Bachelor of Science in Computer Science
- ⌘ **Ojok Emmanuel Nsubuga** – Bachelor of Science in Software Engineering

9.0 PROVISION OF SHORT PROFESSIONAL COURSES

This chapter highlights the College's focus on practical skills and professional development through short courses, bootcamps, and internationally recognized certifications. These initiatives enhance digital literacy, industry readiness, and regional workforce capacity, reflecting the College's broader commitment to equipping students and professionals with the skills needed to thrive in a knowledge-based economy.



9.1 Center for Innovations and Professional Skills Development (CiPSD)



Ms. Nalubega Barbra Head CIPDS

The Center for Innovations and Professional Skills Development (CIPSD) originated as a Cisco Networking Academy in 2004 under the former Faculty of Computing and Information Technology and has since grown into a key professional training unit at Makerere University. The Center focuses on delivering industry-responsive ICT training to support a

knowledge-based economy and has played a leading role in building human capacity for government and other organizations. CIPSD offers a wide range of short professional courses in networking, cloud computing, cybersecurity, software development, data analytics, emerging technologies, and digital literacy. It also supports academic programs through hands-on training during recess terms for students in Computer Science and related disciplines.

The Centre for Innovations and Professional Skills Development (CIPSD) is an important resource for anyone seeking practical computer knowledge and skills to support a knowledge-based economy in the twenty-first century. The center deliberately provides training that is tailored to the demands of society. This is accomplished by adapting courses to what the industry requires. The Centre has been in the forefront of assisting governments and other organizations in developing human capacity in a variety of ICT capabilities. The Centre has the capacity to enroll 5000 students each year due to its huge computer laboratories with a capacity of 200 seats. It has existed since the College's inception offering short and professional ICT courses in

addition to the mother unit's major teaching and research activities. This center provides professional growth in ICT as well as incubation for new ideas. The unit offers short and professional ICT courses in addition to the mother unit's major teaching and research activities.

The centre's mission is twofold: 1) to provide ICT professional skills development and incubation of new ideas, as well as to nurture new technology-based companies; and 2) to supplement individuals' theoretical computing knowledge and ground them in relevant professional ICT skills for industries. For example, under Prof. Hugh Cameron's guidance and our Software Business Incubation program, the centre has nurtured over 150 firms, 15 of which have been funded since 2010. Many of the spinoffs include Kampala startup clusters including Hive Colab, Mobile Monday, Outbox, Mara Launchpad, and Grameen Applab. Other accomplishments include two published refereed conference articles on business incubation at Makerere University, Global Business Labs 2011-2016 (Inter-college collaboration: CoBAMS-CoCIS (Global Business Labs), CEDAT-CoCIS (Software Business Incubation), Resilient Africa Network (incubation), Thought Works (Uganda) 2012-2014, and UCC 2013-2014 (training).

The center also offers first-rate training and consultancy services, as well as cutting-edge training in Microsoft IT Academy Program for Microsoft-related courses, digital literacy, International Computer Driving License courses, Oracle Certified Training courses, and GIS Training, among others. In addition, Makerere University is currently adopting the Makerere University Emergency Open, Distance, and E-Learning mode for non-finalists.

As a result, there is a growing need to strengthen scholars' resilience by improving their ICT knowledge and skills. This allows students to cope and adapt to the educational technical tools and successful pedagogical abilities required for distant learning. The growing popularity of ICT around the world has sparked a great deal of interest from individuals and students in this generation. While access to education has been identified as the most important enabling factor for Uganda's rapid growth, investment from industry leaders has continued to raise the level of ICT usability in the country.

In addition, CIPSD serves as an authorized Global Testing Center, hosting internationally recognized certification examinations for professionals across East and Central Africa, supported by over two decades of credible service delivery. The Center manages consultancy projects and government-supported programs, including the e-VBAB project, which provides undergraduate and graduate training

to 1,680 students and is scheduled to conclude in 2027, with significant graduations expected in 2025. Through its designation as a Regional Cisco Networking Academy in partnership with Cisco Systems Inc., CIPSD oversees regional Cisco programs, ensuring quality assurance and continued alignment with global ICT training standards.

In the year under review we held the following activities:

9.1.1 ICT Bootcamps 2025

We organize bootcamps to boost short courses revenue. The 2025 ICT bootcamps started in April to June and resumed on 11th/11/2025 for primary and high school students on holiday as well as members of the public. Majority of the skills courses selected below were taught to in a bid to provide Practical ICT knowledge to the learners.

Despite the tense political season which made a few parents skeptical to send their young ones to the University during the January 2026 month, we managed to teach a fair number of **306** in total

Table 5

The summarized number of students taught per course

No.	SKILLS COURSE	COHORT
1	Graphics Design	Nov/Dec
2	Microsoft Office	Nov/Dec
3	Microsoft Office	Nov/Dec
4	Practical Networking	Nov/Dec
5	Python Programming Full Stack	Nov/Dec
6	Video Editing & Content Creation	Nov/Dec
7	Dynamic Website Design	Nov/Dec
8	Computer Repair	Nov/Dec
9	Artificial Intelligence	April to July
10	Data Analytics and visualization	April to July
11	Machine learning	April to July
	TOTAL NUMBER	306

9.1.2 Mastercard Scholars Trained in ICT Capacity Building

101 Mastercard Scholars participated in the ICT capacity building programme during the reporting period. Overall performance was strong, with the average score falling in the mid-eighties, reflecting a high level of competence among the candidates. The majority attained excellent and very good grades, demonstrating effective knowledge acquisition and skills application, while only a small number recorded low performance or were absent from the final assessment. This outcome indicates that the training programme was largely successful and met its intended learning objectives.

9.1.3 The International Testing Centre

CIPSD promotes inclusion and access to quality ICTs by all people in the country and around the world as evidenced by the Center's global partnerships with several international testing Institutions/bodies including Pearson VUE, Prometric, IC3, ICDL, ISACA/PSI and Kryterion. Because of the Centre's strong, credible and successful track record spanning over two decades, a substantial number of professionals from East and Central Africa take their international certification tests here. Our Centre has improved in terms of growth over the past year.

9.1.4 eVBAB & Amity Graduation Ceremony

We were able to churn out 70 graduates from 11 Indian Universities on various Undergraduate and graduate programmes. The ceremony was held at COCIS- Big Lab 2 on November 21st 2025





9.1.5 CISCO Academies' Trainings

Five Cisco academies had their instructors trained totaling to 134 in various skillsets.

9.1.6 EVBAB Lab Wrapped Up

The e-VBAB Laboratory, established under the Government of India's e-Vidyabharati and e-Aarogyabharati Network Project, served as Uganda's dedicated international hub for tele-education and tele-medicine, providing access to accredited Indian university programs, digital skills training, and telehealth capacity building for students, educators, and healthcare professionals.

Activities of this lab were concluded this year 2025, to give space for expansion of Directorate of ICT Support.



10.0 FINANCIAL REPORT

This chapter provides an overview of the College's financial management and expenditure during the reporting period. The data reflects careful allocation of resources across key areas including research, staff training, ICT services, scholarships, maintenance, and operational activities. Overall, the College maintained prudent financial oversight, ensuring that budgeted funds were largely utilized effectively while leaving minimal unspent balances, demonstrating transparency, accountability, and strategic investment in academic and operational priorities.

Table 6

Budget Performance

MAKERERE UNIVERSITY College of Computing & Information Sciences Funds Balances as at 19th June 2025 Extracted from IFMS					
Funds Available (UGX): Account	Account Description	Budget	Encumb rance	Actual	Funds Available
01-002-120100-3010100300-0000-320036-0000-02-211106	Allowances	-	-	-	-
01-002-120100-3010100300-0000-320036-0000-02-221001	Advertising and Public Relations	46,500,000	-	46,500,000	-
01-002-120100-3010100300-0000-320036-0000-02-221002	Workshops meetings and Seminars	29,400,000	-	29,399,982	18
01-002-120100-3010100300-0000-320036-0000-02-221017	Memberships and Subscriptions	7,250,000	-	7,249,139	861
01-002-120100-3010100300-0000-320036-0000-02-224011	Research Expenses	336,900,000	-	336,899,348	652

01-002-120100-3010100300-0000-320043-0000-02-211106	Allowances	276,384,066	-	276,384,066	-
01-002-120100-3010100300-0000-320043-0000-02-212103	Incapacity death and benefits and funeral expenses	-	-	-	-
01-002-120100-3010100300-0000-320043-0000-02-221001	Advertising and Public Relations	59,000,000	-	59,000,000	-
01-002-120100-3010100300-0000-320043-0000-02-221003	Staff Training	52,500,000	-	52,480,800	19,200
01-002-120100-3010100300-0000-320043-0000-02-221007	Books, Periodicals & Newspapers	11,400,000	4,967,500	6,432,500	-
01-002-120100-3010100300-0000-320043-0000-02-221008	Information and Communication Technology Supplies.	132,700,000	-	132,699,800	200
01-002-120100-3010100300-0000-320043-0000-02-221009	Welfare and Entertainment	196,246,072	-	196,235,471	10,601
01-002-120100-3010100300-0000-320043-0000-02-221011	Printing, Stationery, Photocopying and Binding	50,000,000	-	50,000,000	-
01-002-120100-3010100300-0000-320043-0000-02-221017	Membership dues and Subscription fees.	8,000,000	-	7,997,217	2,783
01-002-120100-3010100300-0000-320043-0000-02-222001	Information and Communication Technology Services	30,000,000	-	16,520,663	13,479,337
01-002-120100-3010100300-0000-320043-0000-02-222002	Postage and Courier	3,000,000	-	2,055,209	944,791

01-002-120100-3010100300-0000-320043-0000-02-223001	Property Management Expenses	59,000,000	-	58,999,942	58
01-002-120100-3010100300-0000-320043-0000-02-223004	Guard and Security services	35,000,000	-	35,000,000	-
01-002-120100-3010100300-0000-320043-0000-02-224008	Educational Materials and Services	625,254,000	-	625,253,834	166
01-002-120100-3010100300-0000-320043-0000-02-226001	Insurances	5,000,000	-	5,000,000	-
01-002-120100-3010100300-0000-320043-0000-02-227004	Fuel, Lubricants and Oils	46,800,000	-	46,800,000	-
01-002-120100-3010100300-0000-320043-0000-02-228001	Maintenance – Buildings and Structures	40,000,000	-	39,999,994	6
01-002-120100-3010100300-0000-320043-0000-02-228002	Maintenance – Transport Equipment	30,000,000	-	29,999,927	73
01-002-120100-3010100300-0000-320043-0000-02-228003	Maintenance – Machinery & Equipment Other than Transport Equipment	47,021,000	-	47,020,980	20
01-002-120100-3010100300-0000-320043-0000-02-228004	Maintenance – Other Fixed Assets	97,200,000	6,364,500	90,646,520	188,980
01-002-120100-3010100300-0000-320043-0000-02-282103	Scholarships and related costs	15,999,999	-	14,991,400	1,008,599
Sub Total		2,240,555,137	11,332,000	2,213,566,792	15,656,345

11.0 SPECIAL REPORT ON THE COCIS ENDOWMENT FUND

REPORT FROM THE CoCIS ENDOWMENT FUND RETREAT - JINJA

This year, the College of Computing and Information Sciences organized a staff retreat to officially launch its endowment fund. The event took place at the Source of the Nile Hotel in Jinja from August 14th to 16th 2025. The retreat was held under the theme “Providing Incredible Opportunities for Research and Students,” emphasizing the college’s commitment to nurturing academic excellence and innovation.

During the event which was sponsored by the College and AirQo, the College Principal highlighted the inspiration behind establishing the endowment fund. He explained that it was motivated by the many students who approached his office each semester, requesting for an opportunity to sit for exams despite having outstanding tuition balances.

He emphasized that these students are often very bright but face financial constraints that hinder their ability to complete their studies on time. The endowment fund is therefore aimed at providing a supportive hand to such deserving students, enabling them to finish their education and realizing their full potential.

The College Principal also emphasized that the primary focus of the endowment fund was to attract and support excellent faculty members as well as underprivileged students. He also outlined the selection criteria that will be used to determine beneficiaries of the Fund. Regarding governance, the Principal assured participants that the fund will be managed by a board of trustees which would comprise of college members, alumni and industry representatives.

Furthermore, he shared the operational future plans for the endowment, including fundraising strategies and partnership development.



Prof. Tonny Oyana, College Principal, giving his remarks at the retreat

Mr. Emmanuel Kitamirike, a representative of the General Makerere Endowment Fund Management, provided a background to the Makerere University Endowment Fund, which dates back to 1922. He noted that donors began contributing funds to Makerere University in 1930, and these funds were then sent to the UK for investment, where they remained for 70 years until 2014.

He explained that Makerere University further developed its endowment fund by establishing a dedicated board of trustees to oversee its management. The primary function of the endowment fund is to support the core activities of the university, including teaching, research, and community service.

Mr. Kitamirike highlighted various investment opportunities available for the fund, such as treasury bonds and unit trusts, which help generate income. He encouraged members of the College of Computing and Information Sciences to contribute to the fund, assuring them that a dedicated link would be created to enable donations.

He also congratulated the College Principal for taking the initiative to start a similar endowment fund, emphasizing that such efforts are vital for the growth and sustainability of educational institutions.



Mr. Emmanuel Kitamirike giving his remarks about current

RESEARCH AGENDA

The two Schools within College of Computing and Information Sciences shared their strategic, 5year plan defining their goals, priorities, and specific topics they intended to study. They identified critical knowledge gaps to guide future studies, ensuring their efforts are focused, relevant, and impactful within their specific fields. These Agendas were also serve as a background for decision-making regarding research activities.

RESEARCH AGENDA 2025 – 2030: EAST AFRICAN SCHOOL OF LIBRARY AND INFORMATION SCIENCES (EASLIS)

Dr. Sarah Kaddu, the Dean East African School of Library and Information Science presented the School's Research Agenda with a theme "*Advancing Knowledge for a digital Africa*".

In her presentation, she highlighted five key thematic areas designed to represent cultural trends, and address current and future needs in the information sector.

These areas focus on;

- ⌘ Leveraging technology for improved information management
- ⌘ Preserving indigenous culture through digital means
- ⌘ Enhancing health outcomes with health informatics
- ⌘ Developing digital literacy and education
- ⌘ Strengthening governance through transparency and open data

Overall, the agenda aims to position EASLIS as a leader in impactful research that supports socio-economic development, cultural preservation, and good governance in Africa

EASLIS Research Priorities

The EASLIS research priorities target both staff and graduate students to promote an organized and impactful research environment.

Staff research priorities at EASLIS focus on critical areas such as:

- ⌘ Comparative analysis of African digital jurisprudence frameworks
- ⌘ Assessing how AI and automation influences employment patterns in the information services industry
- ⌘ Modeling the integration of indigenous knowledge systems into national information infrastructures
- ⌘ Developing knowledge management institutional maturity models
- ⌘ Conducting research on policies related to open data, privacy, and digital rights

Graduate students priorities focus on;

- * Investigating user behavior in digital libraries
- * Analyzing systems of e-government records
- * Embracing eMobile health in rural Uganda
- * Interventions in Higher education student information literacy
- * Digital cultural preservation

The main Challenges to achieving research priorities at EASLIS are:

- Lack of funding for research in humanities and information sciences
- Insufficient digital research infrastructure and methods

- Inconsistent postgraduate completion standards
- Heavy teaching loads that hinder research productivity
- These challenges make it difficult to achieve ambitious research goals

The research agenda of EASLIS is a significant step towards advancing knowledge for a digital Africa. It also highlights the importance of EASLIS in the knowledge society and its role in shaping the future of information science in East Africa.

Research Agenda 2025 School of Computing and Informatics Technology (Scit)

Dr. Joseph Balikuddembe, Dean SCIT in his presentation explained how Research at School of Computing and Informatics Technology has gained International recognition and had Impact on the global stage. He specified the field of Computer Science which has rapidly grown overtime, driven by the widespread deployment of technology in daily life. With this growth, new opportunities for innovation and problem-solving have been created while also presenting challenges that require research and innovative solutions.

SCIT core objectives include:

- ⌘ Championing innovation that provides local solutions and contributes to the global body of knowledge.
- ⌘ Producing cutting-edge research that advances science and technology.
- ⌘ Nurturing talent through mentorship and capacity building.
- ⌘ Driving meaningful change in Uganda and beyond through research, innovation, and knowledge dissemination

The Dean gave the Strategic Research Agenda of SCIT, setting the direction for research priorities over the next five years. He emphasized alignment with national, regional, and international development structures and highlighted SCITs commitments to developing impactful research and innovation.

Focus Areas of the SCIT Research Agenda include:

- Addressing core thematic challenges relevant to Uganda and Africa.
- Promoting interdisciplinary collaboration across scientific, technological, and social disciplines.

- Building strategic partnerships with government agencies, industry stakeholders, and international research networks to foster innovation and knowledge exchange.

SCIT is committed to fostering a research environment characterized by the following;

- ⌘ **Boldness and Inclusivity:** Cultivating a diverse and inclusive research culture that encourages innovation and broad participation.
- ⌘ **Impact Orientation:** Ensuring research addresses real-world problems and creates tangible benefits for society.
- ⌘ **Global Competitiveness:** Striving for excellence in research outputs that meet international standards.

SCIT's Strategic Research Agenda and commitments aim to position the College as a leader in research and innovation, aligned with national development goals and international standards.

RISE (RESEARCH, INNOVATIONS, SERVICES AND ENGAGEMENT)

The Director RISE, Dr. John Ngubiri, gave a summary of the research areas funded by RISE, an initiative which was invented by Professor Oyana with a purpose of improving scholarship in the college. Academic staff preferably in their early career, and students under mentorship are eligible to get this funding. He emphasized the fact that grants awarded by RISE are all based on Merit and are only awarded to the best projects. Grants to be given to staff are assessed externally while student's projects are assessed internally.

A total of over 1.5 million in grants has been distributed over a period of eight years, with about 90% allocated to staff and 10% to students. Funding is mainly directed towards innovative Information Systems and Technology research applications, though exact distribution percentages are unclear, and some calls receive no applicants. Success rates are generally high, mainly depending on proposal quality and availability of funds.

Staff projects are assessed based on their possibility to secure larger future grants, the potential for providing mentorship, and the creativity and originality of the proposal. On the other hand, student projects focus mainly on the possibility of expanding into business or innovative ventures.

Areas of great interest include Intelligent Systems, Health and Nutrition, Education, Smart Business, and Staff Vigilance. Notably, some staff members demonstrate heightened vigilance, to the extent that there is concern they may exhaust the available seed funding prematurely.

The main challenges are:

- Limited funding
- Resource demands for research and competitions
- Focus on short-term cash over scholarships
- Issues of plagiarism
- Problems faced by finalist students
- Budget cuts that hinder the sustainability and growth of initiatives

For moving forward, RISE will focus on:

- ※ Aligning initiatives with departmental and school priorities,
- ※ Providing seed funding to foster larger grants,
- ※ Early-stage start-ups and innovations, as they represent accessible opportunities for growth supporting the formalization of start-ups will prevent them from disappearing,
- ※ Leveraging early-stage innovations as low-risk,
- ※ Offer high-reward opportunities.
- ※ Fund these start-ups using endowment resources, with CoCIS acquiring shares to benefit financially.



Dr. John Ngubiri, Director RISE

RESEARCH INITIATIVES THROUGH RISE AT CoCIS

The College of Computing and Information Sciences' RISE research projects concentrate on interdisciplinary, significant solutions. Health agriculture, technology (AI, software engineering), engineering, climate change, and socioeconomic development are important areas of study. Many of our recipients have used the preliminary data they received from these seed funds to apply for external awards. Strong research outcomes for the College and beyond have resulted from these seeding opportunities. The College's research capacity has been greatly increased by the successful development of junior researchers' grantsmanship knowledge and abilities. The three most fascinating and significant initiatives are listed below.

Yo Waste

Yo waste is a location – based mobile application that connects homes and businesses to independent agents for an efficient on-demand rubbish collection and disposal. This is a game-changing technology that has transformed the way waste management is handled in communities. The mobile app enables waste collectors to receive electronic notifications when their services are needed, streamlining the process and reducing administrative burdens. The innovative platform also offers a pay-per-volume model, ensuring that waste collectors are paid fairly for the actual amount of waste collected. With over 10,000 clients, Yo Waste has successfully implemented its solution to achieve a waste-free community at minimal cost, providing accurate data for trend analysis and supporting homes, businesses, haulers, and municipalities.

Mobi Fuel

Mobi Fuel is a tailored solution designed to serve micro fuel consumers who often require credit, addressing the difficulty of tracking individual usage while recognizing their collective demand. Originally targeted at boda boda operators, the platform gained more enthusiasm from fishermen, particularly those at landing sites along the shores of Lake Victoria. Initially leveraging a mobile app for transactions, Mobi Fuel shifted to USSD technology, which proved more convenient for their target clients who often have limited smartphone access. The system is primarily mobile money-based, allowing users to make remote payments easily, thus supporting efficient fuel access and financial flexibility for communities reliant on lake-based activities.

Auto Speech Translator

Auto Speech Translator is an AI-centric system designed for the real-time monitoring and transcription of long-form speech, such as radio broadcasts, speeches, or continuous audio streams. It effectively converts spoken language into accurate text, enabling seamless analysis and understanding of the content. The platform is capable of classifying various aspects of the transcribed data, including named entities, topics, and speech styles, providing valuable insights into the information being monitored. Its capabilities have expanded to large-scale, continuous speech data monitoring, making it a powerful tool for media analysis, surveillance, and linguistic research in diverse environments.

18 Students Awarded Scholarships from CoCIS Endowment Fund



Prof. Tonny Oyana, College Principal (5th from right) with some of the members of the CoCIS endowment Fund board and the team from JKC Consulting Group

This Year, College of Computing and Information Sciences (CoCIS) Endowment Fund Board awarded scholarships to 18 outstanding students. The beneficiaries were selected during the Board's inaugural meeting held from October 23 to 24, 2025, at Protea Hotel, Entebbe.

The scholarships, offered under the CoCIS Endowment Fund, aimed to support academically exceptional yet financially challenged students pursuing various computing and information science disciplines at Makerere University.

During the two-day retreat chaired by Ms. Sheila Migereko, the Board reviewed 22 applications that had been pre-vetted from an initial pool of 54. After a rigorous evaluation guided by clear selection criteria including a minimum GPA of 3.6, valid registration, and credible evidence of financial need the Board approved 18 applicants for full and partial financial support for the 2025/2026 academic year.

The beneficiaries were categorized into four award tiers, with varying levels of financial support:

- Category 1: USD 2,000 awarded to one overall best student.
- Category 2: USD 1,500 each awarded to two students.
- Category 3: USD 1,000 each awarded to five students.
- Category 4: USD 500 each awarded to ten students.

The top recipient of the Category 1 Award, worth USD 2,000, is Byali Maqueline Leya, a Bachelor of Science in Software Engineering student.

- ⌘ In Category 2, Businge Pamela (Bachelor of Library and Information Science) and Isingoma Edgar (Bachelor of Science in Computer Science) received USD 1,500 each.
- ⌘ Category 3 beneficiaries include Ggayi Edward, Katende Herman, Najjuko Edith, Nakatinda Ruth, and Walukagga Sudais, each receiving USD 1,000.
- ⌘ The Category 4 scholarship, each worth USD 500, went to Nakabale Benjamin, Kemigisha Daphine, Lutalo Allan, Namaganda Sandra, Nankunda Lillian, Nansubuga Catherine, Okwir Moses, Owor Boniface, Ssenkungu Joseph, and Sukwe Benjamin.

The CoCIS Endowment Fund was established to promote excellence, equity, and innovation by providing scholarships, research grants, and development support for students and staff within the College. The 2025/26 awards mark a milestone in the Fund's mission to nurture the next generation of tech leaders and innovators.

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