

Makerere University

College of Engineering, Design, Art and Technology

Annual Report for 2018

To: **The Directorate of Planning**

Submitted by: *Principal's Office*
CEDAT

February 2019

Contents	
A) Introduction	4
Background information	4
CEDAT Mandate	4
CEDAT Mission Statement	4
CEDAT structure and administration in 2018	4
Schools, Departments and administrative offices	5
School of Engineering	5
School of the Built Environment	5
Margaret Trowell School of Industrial and Fine Arts	5
Institute and Centres	5
Some of the other key administrative and support offices	5
B) Staffing levels and enrolment	7
Summary of staff at CEDAT in 2018	7
Technicians	7
Administrative Staff (Principal's Office)	8
Support Staff	9
Part time staff	9
Stop-gap measure	9
C) Progress in meeting the Annual Work Plans	10
Financial Report	10
Miscellaneous Revenue	10
Report summary on Procurements made in 2018	10
D) Progress in Implementing the 2018/19 Strategic Plan	11
Teaching and learning	11
Student activities	11
Student numbers	11
Summary of Graduates who completed in 2018 and Graduated in January 2019	12
Research and Innovations	13
Project Funding	13
Art Exhibitions 2018 REPORT	14
Some notable Conferences and Workshops	16
Research output and Publications made during 2018	16
Journal papers	16
Book Chapters	18
Conference Presentations in 2018	18
E) Collaboration	19

MOUs signed	19
F) SUPPORT FACILITIES AND ADMINISTRATIVE CHANGES	19
Human Resources (new staff and promotions)	19
New Academic Qualifications	19
Promotions in 2018	20
Newly Appointed in the University Service	20
Appointed/ promoted Technicians (Internal Advert)	20
Transfer of Service	21
Retirement/End of Contract	21
Resignations Accepted	21
Died	22
Laboratory improvements (New equipment)	22
Student support services (Library and teaching aids)	22
Annual Report for CEDAT Library for 2018	22
Brief ICT Annual Report 2018	23

A) Introduction

Background information

On 13th December 2010, Makerere University Council approved the merger of the former Faculty of Technology (FOT) and the Margaret Trowell School of Industrial and Fine Arts (MTSIFA) into the College of Engineering, Design, Art and Technology (CEDAT).

The college started operating on 1st February 2011. That was during the period the outgoing Strategic Plan 2008/2009-2018/19 was being operated in the various strategic initiatives in the domains of teaching and learning, research and Knowledge Transfer Partnership which led to increased support from our development partners. That period saw a number of achievements made, including the Kiira EV innovation, Makapads, the Solar powered irrigation pump, strengthening of a research culture, enhancement of international linkages and collaboration among others. The College structures were formed and operationalized.

During 2016/17, the World Bank funded Africa Centre of Excellence on Materials Product Development and Nano-technology was launched. Similarly, CEDAT was designated an East Africa Centre of Excellence on Renewable Energy and Energy Efficiency. Most of these achievements were made possible by enormous support from the Government of Uganda, the World Bank and the development partners. Constraints still remain, particularly inadequacy of space, poor state of laboratories, high staff turn-over and others.

The College developed a Strategic Plan for 2011/12 – 2018/2019. Soon after the approval of the plan, incentives were introduced by the University which in a way distorted the plans at the unit level. The strategic plan at the College level continued to guide the annual plans and activities though with many challenges.

CEDAT Mandate

The mandate of CEDAT falls within the overall mandate of Makerere University, i.e.

- a) the provision of higher education , promotion of research and advancement of learning in Engineering, Design, Art and Technology; and
- b) dissemination of knowledge and giving opportunity of acquiring higher education to all persons including persons with disabilities wishing to do so regardless of race, political opinion, colour, creed, or sex;
- c) the provision of accessible physical facilities to the users of the Public University

CEDAT Mission Statement

To provide transformative innovative teaching, learning, research and services responsive to dynamic national, regional and global needs in Engineering, Design, Art and Technology.

CEDAT structure and administration in 2018

The college is headed by a Principal who is deputized by a Deputy Principal. Currently, Professor Henry Alinaitwe is the Principal while Dr. Venny Kakazibwe is the Deputy Principal.

Schools, Departments and administrative offices

CEDAT is made up of three (3) Schools and each School is headed by a Dean as follows:

- i. School of Engineering- Assoc. Prof. Umaru Bagampadde
 - ii. School of the Built Environment- Assoc. Prof. Moses Musinguzi
 - iii. Margaret Trowell School of Industrial and Fine Arts- Assoc. Prof. Kizito Maria Kasule
- Each of the Schools has 3 departments. Each department is headed by a Head of Department, as follows:

School of Engineering

- a) Department of Civil and Environmental Engineering – Dr Robinah Kulabako
- b) Department of Electrical and Computer Engineering- Dr. Roseline Akol (Acting)
- c) Department of Mechanical Engineering- Assoc. Prof. J B Kirabira

School of the Built Environment

- a) Department of Architecture and Physical Planning- Dr. Amin Tamale Kiggundu
- b) Department of Construction Economics and Management- Assoc. Prof. Anthony Kerali
- c) Department of Geomatics and Land Management- Assoc. Prof. Anthony Gidudu

Margaret Trowell School of Industrial and Fine Arts

- a) Department of Visual Communication Design & Multimedia- Prof. Phillip Kwesiga
- b) Department of Industrial Art and Applied Design- Dr. Angelo Kakande
- c) Department of Fine Art- Assoc. Prof. Francis Xavier Ifee

Institute and Centres

CEDAT has one (1) Institute and six (6) Centres headed by Directors. Centres are the base for service to the community and knowledge-transfer partnerships.

- Institute of Heritage Conservation and Restoration- Assoc. Prof. George Kyeyune
- Centre for Research in Energy and Energy Conservation- Ms. Susan Abbo
- Centre for Research in Transportation Technologies- Dr. Hilary Kasedde
- Centre for Design and Technology Development- Dr. Michael Lubwama
- Centre for Geographical Information Systems (GIS) - Dr. Lydia Mazzi Kayondo (Acting)
- The East African Centre of Excellence in Renewable Energy and Energy Efficiency (EACREEE).
- The Africa Centre of Excellence for Materials, Product Development and Nano Technology (MAPRONANO).

Some of the other key administrative and support offices

The College has the following:

- | | |
|------------|---|
| Registry – | Dr. Alfred Tingo; Ms Josephone Namubiru, Ms Anne Auma |
| Bursar – | Mr. Steven Kayima, Ms Dinah Logose, Mr George Opee |

Human Resources Office –	Mr. Mujuni Tayari,
Procurement Office –	Mr. Tadeo Ibanda
Communications Office -	Ms Betty Kyakuwa
Web Administrator -	Mr. Mark Rujumba
System Administrator -	Mr. Hadadi Kigozi
Senior Administrative Assistant-	Ms Madinah Namakula
Custodian -	Mr. Yorokamu Muhangi
Secretaries in Principal’s Office-	Ms Ruth Namusisi, Ms Noeline Nansubuga

B) Staffing levels and enrolment

Summary of staff at CEDAT in 2018

The summary of staff statistics is provided in the table below.

	Civil and Environmental	Electrical and Computer Engineering	Mechanical	Architecture and Physical Planning	Geomatics and Land Management	Construction Economics and Management	Fine Art	Industrial Art and Applied Design	Visual Communication Design and Multimedia	Total
Professors	0	0	0	1	0	0	0	0	1	2
Associate Professors	2	1	2	1	2	1	2	1	0	12
Senior Lecturers	1	2	1	2	1	0	2	2	2	13
Lecturers	12	6	4	8	5	5	2	3	4	49
Assistant Lecturers	14	28	11	10	7	16	6	7	4	107
Teaching Assistant	0	3	0	0	0	8	0	0	0	11
Part time staff	3	16	0	5	2	15	0	2	0	33

Technicians

	Civil and Environmental	Electrical and Computer Engineering	Mechanical Engineering	Architecture and Physical Planning	Geomatics and Land Management	Construction Economics and Management	Fine Art	Industrial Art and Applied Design	Visual Communication Design and Multimedia	Total
Chief Technician	0	0	1	0	0	0	0	0	0	1
Principal Technician	1	1	1	1	0	0	0	0	0	4
Senior Technician	2	0	2	0	0	0	0	0	0	4
Technician	2	1	2	0	0	0	0	0	0	5
Technical Assistant	0	0	0	2	1	0	0	0	0	3
Laboratory Assistant	2	1	1	0	0	0	0	0	0	4
Studio Assistant	0	0	0	0	0	0	0	1	0	1
Laboratory Attendant	CEDAT									3

Administrative Staff (Principal's Office)

	Principal's Office	School, of Engineering	School of Built Environment	Margret Trowell, School of Fine Art	Total
Principal Human Resource Officer	1	0	0	0	1
Principal Communication Officer	1	0	0	0	1
College Registrar	1	0	0	0	1
Assistant Registrar	-	1	0	1	2
College Librarian	1	0	0	0	1
Assistant Librarian	1	0	0	2	3
College Bursar	1	0	0	0	1
Assistant Accountant	2	0	0	0	1
College Procurement Officer	1	0	0	0	1
Senior Administrative Assistant	1	0	0	0	1
Web Administrator	1	0	0	0	1
Administrative Secretary 1	1	1	0	0	2
Administrative Secretary II	0	0	1	0	1
Stenographer	1	0	0	1	2
Custodian	2	0	0	0	2
Head cleaner	1	0	0	0	1
Cleaner/Messenger	11	0	0	7	18
Sanitary Cleaner	2	0	0	1	3
Grounds man	2	0	0	1	2
Driver	1	0	0	0	1

Support Staff

	Civil and Environmental	Electrical and Computer Engineering	Mechanical Engineering	Architecture and Physical Planning	Geomatics and Land Management	Construction Economics and Management	Fine Art	Industrial Art and Applied Design	Visual Communication Design and Multimedia	Total
Stenographer	0	1	0	0	0	0	0	0	0	1
Senior Copy Typist	0	0	0	0	0	0	0	1	0	1
Copy Typist	1	0	1	1	0	0	1	0	0	4
Messenger/Cleaner	2	1	2	0	0	0	0	0	0	5
Diver	0	0	0	1	0	0	0	0	0	1

Part time staff

	Civil and Environmental	Electrical and Computer Engineering	Mechanical	Architecture and Physical Planning	Geomatics and Land Management	Construction Economics and Management	Fine Art	Industrial Art and Applied Design	Visual Communication Design and Multimedia	Total
Senior Lecturers	0	1	0	0	0	0	0	0	0	1
Lecturers	1	0	0	2	0	0	0	0	0	3
Assistant Lecturers	2	12	0	3	2	7	0	0	0	26
Visiting Lecturer	0	1	0	0	0	0	0	0	0	1
Teaching Assistant	0	3	0	1	0	8	0	0	0	12

Stop-gap measure

Institution of Heritage, Conservation and Restoration	Number	Total
Gallery Administrator	1	1
Gallery Assistant	1	1
Models	10	10
System Administrator	1	1
Technicians	4	3
Driver	1	1
Security Guards	7	7

C) Progress in meeting the Annual Work Plans

Financial Report

The College made a budget of which, the Centre gave us a ceiling of UGX 526,145,496 for the whole year. A new system called AIMS and IFMS was introduced and is now being used. Since IFMS, the Centre was controlling the entire University budget where by no transfers were made to Colleges.

We had to just send our claims to the University Bursar for approval basing on your budget, then payments would be approved at various levels. However, since July 2018, the system now became operational at College level whereby still payments were approved at various levels basing on the College budget ,up to today.

Miscellaneous Revenue

All the money being collected is sent directly to the Consolidated fund using still the IFMS system. However, the College had accumulated domestic arrears amounting to UGX 620,930,121 including part time teaching and extra load. The big debt has been due to limited funds to accommodate our activities, especially with the system.

Report summary on Procurements made in 2018

Improvements made

- Procurement plan put in place F/Y 2018-19
- Early proper procurement planning in co-ordination with user Units
- Strict Procurements done according to plan and budgets

Progress

- Timely acquisition of various/ assorted teaching materials to user units.
- Quality delivery of materials with zero defects
- Proper and meticulous relationship building throughout the supply chain achieving win-win objectives thus reducing costs and achieving value for money to the College

The summary of procurements is as in the table below:

Month	Supplies	Services	Works
January, 2018		9,512,420	
February 2018	14,494,000	15,672,735	
March 2018	440,000		
April 2018	732,000		
May 2018	228,391,760	42,620,248	3,650,000
June 2018	300,136,280	48,322,350	
July 2018	6,500,443	28,710,900	
August 2018	191,280,298	3,540,000	
September 2018	21,130,780		
October 2018	244,652,900	57,877,352	
November 2018	149,568,400	8,407,600	
December 2018	22,393,139		
Totals	1,179,720,000	214,663,605	3,650,000

Total Amount Spent on Procurement Activities: UGX; 1,398,033,605

Impediments during the year in achieving stated goals and objectives

- Some departments need constant reminders to submit procurement requisitions
- Un- realistic market surveys prices submitted on Procurement form 5
- Poor statement of requirements (Specifications and Terms of reference)
- Delay of payments grossly affecting buyer supplier relationship

How challenges have been handled so far!

- Constant reminder of user units to submit requisitions through formal circulars
- Liaise with departmental heads, reduce material quantities to fit within planned budgets
- Advise and guide User units to properly pre-scribe the requirements
- Advise the providers to constantly engage the College Bursar on settlement of payments

Suggestions on way forward

- All requisitions for procurement of teaching materials must be submitted in the second week of the beginning of the semester to avoid delays and failure to achieve intended objectives!
- All ICT related requirement **MUST** be in line with the University directive of liaising with the Technical arm- **DICTS!** To help in development of proper specifications
- All units are advised to make use of framework contract prices posted on the University Intra-net! I.e. for most commonly used item and ICT equipment's
- Increased engagements with various stakeholders to iron out communication gaps/ lacunas on procurement related matters.

D) Progress in Implementing the 2018/19 Strategic Plan

Teaching and learning

Student activities

Open Day was held on 26th October 2018. The Guest of Honour was Gen. Elly Tumwine. It was also attended by the Senior Presidential Advisor on Infrastructure.

Student numbers

The teaching and learning process went on well. As an indicator of the number of students at the college, the number of candidates who sat for examinations for Semester I, 2018/19 during November - December 2018 examinations was 3404 and can be summarized as follows:

Program	Year	No. Of Candidates					
		I	II	III	IV	V	
UNDERGRADUATE							
School of Engineering							
Civil Eng		153	124	85	126		
Electrical & Telecom Engineering		163	218	153	119		
Computer Eng.		35	39	43	44		
Mechanical Eng.		103	101	65	64		
School of the Built Environment							
Architecture		32	30	27	34	29	
Urban Planning		21	41	43	73		
Geomatics & Land Mgt		48	82	61	40		
Quantity Surveying		44	57	50	51		
Construction Mgt.		53	38	31			
Land Economics		40	43	27	42		
Margaret School of Industrial and Fine Arts							
BIFA		177	166	161			
GRADUATE PROGRAMMES							
School of Engineering							
MSc Civil Eng.		40					
MSc Telecommunications		4					
MSc Power Systems		19					
MSc Mech. Eng.		7					
MSc TIID		19					
MSc Renewable Energy		15					
School of the Built Environment							
M Urban Planning and Design							
PGD UPD		14					
MSc GIST		30	18				
MSc Construction Mgt./ PGD Construction Project Mgt		58	41				
Margaret School of Industrial and Fine Arts							
MAFA		6					
Totals		1056	980	746	593	29	3404

Summary of Graduates who completed in 2018 and Graduated in January 2019

The College had 792 successfully completing their programmes in 2018. Below are the numbers of candidates that graduated in January 2019.

Programme	Female	Male	TOTAL
Undergraduate			
B. Architecture	3	15	18
BSc. Urban and Regional Planning	33	27	60
BSc Land Surveying and Geomatics	11	19	30
BSc Surveying	0	2	2
BSc Construction Management	6	30	36
BSc Quantity Surveying	12	33	45
BSc Land Economics	14	22	36
BSc Civil Engineering	15	81	96
Bsc Mechanical	12	53	65
BSc Electrical	15	78	93

BSc Computer Engineering	11	37	48
BSc Telecommunications Engineering	8	32	40
B. Industrial and Fine Arts	60	72	132
Graduate			
MSc Construction Management	3	24	27
Master of Architecture	1	1	2
PGD Construction Project Management	1	17	18
Master of Science in Geo-information Science and Technology	3	7	10
MSc Urban Planning and Design	0	4	4
MSc Civil Engineering	1	9	10
MSC Engineering (Civil)	0	1	1
MSc (Mechanical Engineering)	0	2	2
Master of Science in Technology innovation and industrial Development	3	4	7
MSc Renewable Energy	1	3	4
MSc of Engineering (Electrical)	0	1	1
MSc Power Systems Engineering		1	1
Master of Arts in Fine Arts	0	2	2
Doctor of Philosophy (Construction)	0	1	1
Doctor of Philosophy (Engineering)	0	1	1
TOTAL	213	579	792

Research and Innovations

Project Funding

i) Enriching Engineering Education Programme (EEEP)

The School of Engineering is participating in the Enriching Engineering Education Programme (EEEP) funded by the Royal Academy of Science in the UK. The Royal Academy of Engineering granting the College UK Pounds 140,000 over a period of two years. This was used to review the curriculum and to support Problem Based Learning activities.

ii) EACREEE

The East Centre of Excellence for the East African Centre for Renewable Energy and Energy Efficiency (EACREEE) was registered as a not for profit company limited by guarantee. The total funding is Euro 1.6 over a three year period.

iii) Presidential Initiative

The College has continued to deliver on the Presidential Initiative project. However, the disbursement of funds from Government has been dwindling.

Repairs to the roof to the Old Technology Building commenced.

A number of innovations were made including the ilabs, solar irrigation pump.

(iii) MAPRONANO

The World Bank funded Africa Centre of Excellence for Materials Product Development and Nanotechnology has continued to deliver on its mandate. It was rated the best ACE in Uganda achieving the targets.

(iv) Strengthening PBL in East African Universities

The project, aimed at strengthening PBL, is funded by the Finnish Government through their Ministry of Foreign Affairs. It involves three universities in East Africa: viz, Makerere University, University of Nairobi and University of Dar es Salaam. The managing university in Finland is Aalto University.

Art Exhibitions 2018 REPORT

AFRICAN MODERNISM

The Exhibition 'African Modernism' researched and curated by architect and author Manuel Herz, looks at modernist architecture on the African continent as it documents more than 80 buildings in Ghana, Senegal, Cote d'Ivoire, Kenya and Zambia.

An essential part of the exhibition was the work of the Ugandan photographer Timothy Latim. A broad collection of newly produced photographs capturing modernist influence on architecture in the city of Kampala. [#African Modernist Kampala](#)

FASHION PARADE 2018

This year's fashion show embraced two themes;

“save time and maximize value”

“social record”

The fashion industry is increasingly becoming an important feature of Uganda's' social and political fabric legislation on dress code especially for civil servants has in the recent past become a topical issue. As a segment of cultural industry, fashion has moved from periphery to the centre.

Fashion is more than promoting smartness and a positive image of one's self; fashion is at the forefront of enabling society get a deeper awareness of itself and its role in contributing to national development and identity. One of the key elements in the course of training fashion designers at MTSIFA is to show case fashion innovations through fashion shows. A course of fashion design would be incomplete without the inclusion of a fashion show.

HOPE ART EXHIBITION

UVADA in partnership with Kyampisi Childcare Ministries (KCM), Makerere University art gallery (IHCR) and parliamentary forum presented the “HOPE Art Exhibition” at Makerere art gallery on 27th/08/2018

Hope art exhibition is also part of the “HOPE GALA” that was launched on 24th/08/2018 at Serena Hotel. The exhibition is an awareness campaign aimed at ending child sacrifice and human trafficking. Over 80 members of parliament joined the public to shape a policy that will protect our children at Serena hotel for the HOPE Gala.

The exhibition launched 9 Ugandan, 7 Australian and two American artists at at Serena hotel and Makerere Art Gallery. Namely; Ssajjabbi Edward Kamugisha, Mayanja Richard

Weazher, Ruganzu Bruno Tusingwire, Akello Sharon Brenda, Nimuhamya Viola, Ibanda Joshua, Kintu Paul, Kabonge George, Waddimba Edward from Uganda, Bella Fiorentino, Florentina Pergoleto, Danny Sky, Devorah Harkham, Sahar Salahshori, Yoori Cho, Hani Abdile from Australia and Kimberli Kocherhans, Kali Kocherhans from USA.

THE PETROL STATION.

Besides HOPE ART EXHIBITION LAUNCH, we launched Prof. Andrew Burton's and Dr. [Nabulime Lilian](#)'s installation located at the entrance of the gallery. It added beauty to the gallery court yard. This was an exchange programme between Makerere University and Newcastle University.

A RETROSPECTIVE, ‘25 YEARS OF BRUNO SSERUNKUMA’

Makerere Institute of Heritage Conservation and Restoration (MIHCR) organized and hosted the exhibition "25 years of Bruno Sserunkuma's Ceramic philosophy."

Bruno Sserunkuma is such a prolific artist and lecturer who has practiced and matured in the genre of ceramics since 1993. He has over time authoritatively shaped the media into a weapon aimed at re-thinking one of the oldest Ugandan tribal craft to combat social challenges. Therefore, this exhibition was a layered visual configuration to share Bruno Sserunkuma's studio dilemma and experience whose work serves as an integral part of ceramics, painting and graphics design to render visual coherence to a broader audience in a more refined context. The exhibition granted us a glimpse into 25 years of studio practice as a critique of society and social ironies

ATWORK UGANDAN CHAPTER 2018

"I HAD A DREAM" EXHIBITION

Moleskine Foundation, Makerere Art Gallery and Maisha Foundation present "I had a dream" an exhibition of the artistic notebooks created during AtWork Kampala "I had a dream" workshop was conducted by Simon Njami and Elise Antangana. 25 participants, 25 dreams, 25 projects that opened on Sunday 2nd September.

MTSIFA ALUMNI 2018

Opened on Thursday 14th June 2018 at 5pm. This exhibition was a reunion of former students of the Art School, their contributions and creative energies to Uganda art as the first centre of education in East Africa. This was an opportunity to see different generations' side by side sharing memories and challenges. The artworks exhibited showed a diverse exploration of concepts and art forms.

BOOK LAUNCH “THE HISTORY OF KIGEZI 1900-1970”

The official launch of "The History of Kigezi 1900-1970" by Amanda Tumusiime and Edward Nobel Bisamunyu. This was work in progress by Dr. Amanda Tumusiime, She has been documenting many histories and more of these books are still being edited.

FROM THE NORTH POLE TO THE EQUATOR

THE DUKE OF ABRUZZI'S EXPLORATION VOYAGES

This exhibition was in collaboration with Swedish Embassy in Uganda. The Exhibition was show casing Photographs of Duke of Abruzzii who was a passionate mountaineer and explorer of his time, who climbed the highest peaks of Mountain Rwenzori in 1906.

DIFFERENT BUT ONE 22

"Different But One 22" is an annual event curated by an Israeli lady (Rebecca Uziel), the opening was on 15th February 2018 at 5pm. Every year Makerere Art School teaching staff come together as a team to show case their new bodies of work in progress and on-going research

TABOO

This was a joint exhibition with support from the Bishozi National Organization (BNO), Bishozi International Program (BIP), the Swedish Arts Grants Committee and Makerere University. It was looking at Gender balance. This is an ongoing project from western region specifically Bishozi region where ladies are regarded inferior and are not allowed to access certain privileges like the men.

2018 REPORT.

Some notable Conferences and Workshops

No	Conference theme	Location	Key participants	Date
1	EEEP workshop on PBL	Makerere University	All Engineering staff	12 -13 /4/2018
2	Enhancing Engineering Education through University-Industry Links	Moi University, Kenya	All staff of engineering	3-5/5/2018
3	Visiting Professors conference	Birmingham University, UK	Visiting professors of engineering	24-25 September 2018
4	Innovation and Incubation	Dar es Salaam University, Tanzania	All staff of CoET, Makerere and Moi	13-14 September 2018

Research output and Publications made during 2018

Journal papers

- Buregyeya, A., Nwaubani, S., Schmidt, W., Kerali A. G. & Bagampadde, U. (2018) Pozzolanic and hydration properties of kamafugites and carbonatitic lavas as supplementary cementitious materials in Portland cement. African Journal of Science, Technology, Innovation and Development. Vol. 10, No. 7, 845 – 859.
- Buregyeya, A., Ballim, Y., Nwaubani, S., Kerali, A. G., Otieno, M. (2018) Effect of Carbonate Minerals and Calcination of Carbonatites and Kamafugites on Their Pozzolanic Performance and Early Age Concrete Properties Calcined Clays for Sustainable Concrete. Proceedings of the 2nd International Conference on Calcined Clays for Sustainable Concrete, pp 86-97.
- Linda Strande, Lars Schoebitz, Fabian Bischoff, Daniel Ddiba, Francis Okello, Miriam Englund, Barbara J. Ward, Charles B. Niwagaba (2018) Methods to reliably estimate faecal sludge quantities and qualities for the design of treatment technologies and management solutions. Journal of Environmental Management, 223, 898-907.

- Sahar Dalahmeh, Sana Tirgani, Allan John Komakech, Charles B. Niwagaba, and Lutz Ahrens (2018) Per- and polyfluoroalkyl substances (PFASs) in water, soil and plants in wetlands and agricultural areas in Kampala, Uganda. *Science of the Total Environment*, Volumes 631–632, Pages 660–667
- Swaib Semiyaga, Mackay A. E. Okure, Charles B. Niwagaba, Philip M. Nyenje & Frank Kansime (2018) Enhancing faecal sludge dewaterability and end-use by conditioning with sawdust and charcoal dust. , *Environmental Technology*, Vol. 39(3).
- Atwijukye, Osbert, Kulabako, Robinah Niwagaba, Charles Sugden, Steven (2018) Low cost faecal sludge dewatering and carbonisation for production of fuel briquettes. in Shaw, R.J. (ed). *Transformation towards sustainable and resilient WASH services: Proceedings of the 41st WEDC International Conference, Nakuru, Kenya, 9-13 July 2018*, Paper 2880, 7 pp
- Gold, M., Cunningham, M., Bleuler, M., Arnheiter, R., Schönborn, A., Niwagaba, C., Strande, L., (2018) Operating parameters for three resource recovery options from slow-pyrolysis of faecal sludge. *Journal of Water, Sanitation and Hygiene for Development* 8 (4): 707-717.
- Giorgia Silvestri, Julia M. Wittmayer, Karlijn Schipper, Robinah Kulabako, Sampson Oduro-Kwarteng, Philip Nyenje, Hans Komakech and Roel Van Raak (2018) Transition Management for Improving the Sustainability of WASH Services in Informal Settlements in Sub-Saharan Africa—An Exploration. *Sustainability* 2018, 10(11), 4052.
- Mackay A. E. Okure, Yonah K. Turinayo, Samuel B. Kucel (2018) Techno-Economic Viability of Husk Powered Systems for Rural Electrification in Uganda: Part II: Economic and Policy Aspects. *The Nexus: Energy, Environment and Climate Change* pp 53-74
- Michael Lubwama and Vianney Andrew Yiga (2018) Characteristics of briquettes developed from rice and coffee husks for domestic cooking applications in Uganda. *Renewable Energy*, Vol. 118, 43-55
- Joel Kitutu, Lydia Mazzi Kayondo, Moses Musinguzi (2018) Situation analysis of healthcare service delivery using geographically weighted regression: (A case study of Sironko District, Eastern Uganda). *South African Journal of Geomatics*, Vol. 7(1).
- Ivan Bamweyana, Lydia Mazzi Kayondo (2018) Spatially explicit modelling of extreme weather and climate events hot spots for cumulative climate change in Uganda. *South African Journal of Geomatics*, Vol. 7(1)
- Oliva Willibald, Stephen Mukiibi, Tatu Limbumba (2018) Understanding Residential Mobility. *American Journal of Engineering Research*, Volume 7(5), pp 503 – 507.
- Eve Mackinnon, Richard Ayah, Richard Taylor, Michael Owor, John Ssempebwa, Daniel Olago, Robinah Kulabako, Anta Tal Dia, Cheikh Gaye, Luiza C. Campos & Edward Fottrell (2018). 21st century research in urban WASH and health in sub-Saharan Africa: methods and outcomes in transition. *International Journal of Environmental Health Research*.
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Book Chapters

- Gebrezgabher, S., Niwagaba B. C., 2018. Briquettes from agro-waste and municipal solid waste (Eco-Fuel Africa, Uganda), pages 72-81. In Otoo, M. & Drechsel, P., 2018. *Resource Recovery from Waste. Business models for Energy, Nutrient and Water Reuse in Low- and Middle-income Countries*. ISBN 978-1-138-01656-9.
- Niwagaba B. C., Otoo, M., Hope, L., 2018. Municipal solid waste composting for cost recovery (Mbale Compost Plant, Uganda), pages 324-332. In Otoo, M. & Drechsel, P., 2018. *Resource Recovery from Waste. Business models for Energy, Nutrient and Water Reuse in Low- and Middle-income Countries*. ISBN 978-1-138-01656-9.
- Kibwami, N. and Tutesigensi, A. (2018). Managing Embodied Carbon in Africa through a Carbon Trading Scheme. In F. Pomponi, C. De Wolf and A. Moncaster (Eds.), *Embodied Carbon in Buildings - Measurement, Management, and Mitigation*, Springer Publishers, London.

Conference Presentations in 2018

- M. Lubwama, S. Pagel, V.A. Yiga, S. Epple, P. Olupot, C. Bonten. Mechanical and thermal properties of bio-composites reinforced with rice and coffee husks, 8th Edition of *Bioplastics and Biopolymer Science and Engineering Conferences*. October 15th – 16th, 2018, Las Vegas, USA.
- T.L. Musinguzi, V.A. Yiga, M. Lubwama. Production of bio-composite polymers with rice and coffee husks as reinforcing fillers using a low cost compression molding machine. 1st Pan African Society of Agricultural Engineering. March 2018, Nairobi, Kenya

V.A. Yiga, M. Lubwama. Characterization of briquettes made from agricultural residues for domestic cooking applications in Uganda. 1st Pan African Society of Agricultural Engineering. March 2018, Nairobi, Kenya.

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Vianney Andrew Yiga, Michael Lubwama, Sinja Pagel, Stefan Epple, Christian Bonten, Peter Wilberforce Olupot. Mechanical and thermal properties of Bio-composite polymers reinforced with rice and coffee husks. 8th International Conference and Exhibition on Biopolymers and Bioplastics. October 15th - 16th (2018) Renaissance Hotel, Las Vegas, Nevada, USA. DOI: 10.4172/2090-4568-C4-014

Vianney Andrew Yiga, Michael Lubwama, Peter Wilberforce Olupot. Effect of carbonization on the properties of Polypropylene Based Bio-composites. International Conference on Biochemical & Chemical Engineering. November 19th - 20th (2018) Panorama Hotel, Prague, Czech Republic.

E) Collaboration

MOUs signed

A list of MoUs signed in 2018 are as follows:

	Partner	Date
1	Luwero Industries Limited	25 th April 2018
2	University of Petroleum and Energy studies, Bidholi Via Prem Nagar, New Delhi, India	18th May 2018
3	University of Leeds	1 st August 2018
4	Central University of Technology, Bloemfontein, South Africa	26th November 2018

F) SUPPORT FACILITIES AND ADMINISTRATIVE CHANGES

Human Resources (new staff and promotions)

New Academic Qualifications

No.	Name	Qualification attained	Department
1	Dr. Bakamwesiga Hilary	PhD	Civil & Environmental Engineering
2	Mr. Mwesiga	LLB	Electrical and Computer Engineering

Promotions in 2018

No.	Name	Post considered	Department
1.	Dr.Lydia Mazzi Kayondo	Senior Lecturer	Geomatics and Land Management
2.	Dr. Lubwama Michael	Senior Lecturer	Mechanical Engineering
3.	Dr. Swaibu Semiyaga	Lecturer	Civil & Environmental Engineering
4.	Dr. Manga Musa	Lecturer	Construction Economics & Management
5.	Dr. Sserunjogi Patrick	Lecturer	Visual Communication, Design & Multimedia
6.	Dr.Nabuyungo E. Ritah	Lecturer	Fine Art
7.	Dr. Bakamwesiga Hillary	Lecturer	Civil & Environmental Engineering
8.	Ms. Namakula Madiina	Senior Administrative Assistant	Principal's Office
9.	Ms. Lusweti Grace	Administrative Secretary 11	Principal's Office
10.	Ms.Ssanyu Vicky	Administrative Secretary 11	Principal's Office

Newly Appointed in the University Service

No.	Name	Post considered	Department
1.	Mr. Mulwana John Bosco	Assistant Lecturer	Architecture and Urban Planning
2.	Mr. Jjuko Samuel	Assistant Lecturer	Civil & Environmental Engineering
3.	Ms. Namakula Hidaya	Assistant Lecturer	Construction Economics and Management
4.	Ms. Nanfuka Joan	Assistant	Fine Art
5.	Ms. Nabukenya Matovu Fidelis	Assistant Lecturer	Fine Art
6.	Dr. Nabuuma Hanifa	Lecturer	Electrical & Computer Engineering

Appointed/ promoted Technicians (Internal Advert)

No	Name	Post Considered	Department
1.	Mr. Wabwire Andrew	Chief Technician	Mechanical Engineering
2.	Mr. Okello Morris Innocent	Principal Technician	Mechanical Engineering
3.	Mr. Charles Basalirwa	Senior Technician	Mechanical Engineering
4.	Mr. Kapasa Samuel	Principal Technician	Architecture & Urban Planning
5.	Ms. Namusoke Josephine	Principal	Civil & Environmental

		Technician	Engineering
6.	Mr.Besigye Jimmy	Senior Technician	Civil & Environmental Engineering
7.	Mr. Mujasi Philip	Principal Technician	Electrical & Computer Engineering
8.	Mr. Gitta Robert	Senior Technician	Electrical & Computer Engineering

Transfer of Service

No.	Name	Designation	From	To
1.	Ms. Loyce Hamba	Copy Typist	Dean, School of Built Environment	Mathematics
2.	Mr. Sam Ssali	Cleaner	Principal's Office	To Lumumba Hall
3.	Ms. Cissy Nakku	Cleaner	CCE Complex Hall	CEDAT
4.	Ms. Grace Lusweti	Copy Typist	Estates Department	Dean, School of Built Environment
5	Ms. Grace Nakasi	Administrative Secretary 1	Deputy Vice-Chancellor AA	Dean, School of Engineering
6.	Ms. Christine Apodoi	Librarian	University Library	Fine Art
7.	Ms. Nankiga Janat	Stenographer	Dean, Fine Art	Principal's Office (LAW)
8	Ms. Patricia Nehoba	Stenographer	CEES	Dean, MTSIFA
9	Mr. James Edopu	Custodian	Senate	MTSIFA

Retirement/End of Contract

No.	Name	Post considered	Department
1.	Dr. Byaruhanga K.Joseph	Associate Professor	Mechanical Engineering
2.	Mr. Kayiwa Lawrence	Cleaner	Principal's Office
3.	Ms. Namuli Lydia	Cleaner	Principal's Office

Resignations Accepted

No.	Name	Designation	Department
1.	Mr.Birimumaso David	Assistant Lecturer	Mechanical Engineering
2.	Dr. Eunice Naigaga	Lecturer	Construction Economics & Management
3.	Ms. Sylvia K. Nakayiza	Cleaner	Principal's Office

Died

No.	Name	Post considered	Department
1.	Lunyole Rose	Cleaner	Principal's Office
2.	Dr.Musaazi Moses	Part time Lecturer	Electrical & Computer Engineering
3.	Dr. Rugumayo Albert	Part time Sen. Lecturer	Civil & Environmental Engineering

Laboratory improvements (New equipment)

Installation of new pieces of equipment in Materials and Fluids laboratories carried out with funding from African Development Bank.

3D printer, Crucibles of 100 kg and 80 kg, 2 no. Epsilon projectors and modelling stands. Civil engineering laboratories contract awarded and awaiting delivery.

Student support services (Library and teaching aids)

Annual Report for CEDAT Library for 2018

Responsible Person: Mukama Proscovia as the College Librarian

Background and Mission

There are two libraries in CEDAT that is CEDAT Library and SIFA Library. CEDAT library is located in CEDAT in the new building on the ground floor. SIFA Library is located in the School of Fine Art. The mission is to meet the study, teaching, research and outreach information needs for sustainable development for CEDAT as a college.

Staffing Levels/Enrollment

LEVEL	Number	Name
College Librarian	1	Mukama Proscovia
Library Assistants	3	Madia, Begire Mundua, Janet Kyokyo, Edith
Part time staff	1	Mubiru Francis

Progress in meeting the annual work plan for the CEDAT library for 2018.

The work plan set for CEDAT library for 2018 was met.

We were able to carry out our annual stock taking exercise in June and July 2018. This helped us to determine the total number and titles of books we had in stock for year 2018. The exercise also helped us to identify how many books needed repair and binding. We established how many books were borrowed for the year 2018. We were also able to identify how many staff and students had defaulted in returning the books that is those who went beyond the due date they were given the return the books.

We were able to compile a list of new books received. These books were processed and entered in the Virtua Database library system for Makerere University library. The list of new books was displayed on the CEDAT Library notice board.

We conducted training where students obtained knowledge on how to use the library and retrieve relevant information. Students were also trained in how to use e-resources in the library. The venue was in CEDAT library on 9th August and 16th August 2018 respectively.

Progress in implementing the 2018/2019 Strategic Plan for 2018.

Objective 1: To increase and sustain library information resources by the end of 2018

The library received 13 new books. These include 1 PhD thesis by Mhando Yusuph Bakari. 40 books were identified which needed repair and binding but there was shortage of funds to accomplish the job.

The library stock consists of :

Reserve section 762 books, book titles 643. Open shelves 754 2 books, book titles 2060. A total of 42 books have been ordered for CEDAT via Makerere University Library book bank system.

Objective 2: To ensure optimal utilization of library resources by the end of 2018

The 13 news books received in the library were entered into the virtual library database system of the main library. 70 books were bar coded in the database. This is done to help improve on access to the information materials.

76 new students were trained on how to use the library and obtain necessary information. 55 students were trained in using e-resources.

Brief ICT Annual Report 2018

Computer equipment obtained in 2018

Item Name	Quantity	Designation	Comments
Computer System/Desktop units	7	<u>7 Desktop units</u> <ul style="list-style-type: none"> ● 1 Secretary Dean-Eng ● 1 Secretary dean Built-environment ● 1 Secretary dean MTSIFA ● 1 Secretary Electrical Dept ● 2 Lecturer (Maxmas Byamukama & Kaconco) ● 1 procurement officer 	Absolute units replaced, now to disposal process
Printers	4	<u>4 printers</u> <ul style="list-style-type: none"> ● Deputy Principal(Color) ● Human Resource ● Communication Office ● Secretary MTSIFA 	
Scanners	1	Secretary Principal	
Projectors	2	System Administrator/ Mobile projectors	
Lab Computers	20	GIS Computer Lab	Project Machines
VGA	10	Lectures room	Replaced damaged VGA cable in lecture room

Improvements made

- Improved access to wifi signals at the side of New building and MTSIFA majorly positioned to support teaching and learning.
- Engraved new ICT equipments in administrative offices
- Supported university wide activities with college ICT resources including; exams and trainings.
- Updating students and staff data on information systems; AIMS, WEBMAIL and MUELE.
- Supported procurements and installations of ICT equipments to MAPRONANO AND EACREEE
- Regular repairs works including; broken fiber (soil-lab), printers, upgrading operating systems and applications for comps in Labs and servicing academic and administrative Units computer systems and installing updated applications to machines.
- Progress of the CCTV camera system for the college.

Challenges

- Uncoordinated request of ICTS equipments in the college, at times equipments are procured without the knowledge of system administration office, it makes assert inventory management difficulty.
- Unreliability of financial resources, presidential Initiative on and off.
- Less staff for example; we have 1 computer Lab attendant to support 5 Computer labs in the Old and New-building.

Solutions to Challenges

- ICT Procurement requests in the College should be coordinated through System Administrator for better accountability and asset management.
- Request another computer Lab attendant to help the one(old man) taking care of the 5 Labs in the College.