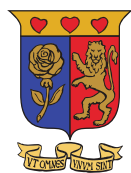


2017

Research and Innovation Report



Strathmore
UNIVERSITY





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Foreword

In keeping with the push to enhance Strathmore University's reputation for excellence in research and innovation, I am pleased to present this report. It covers research activities within the University during 2017, and is the second comprehensive annual research and innovation report we have published.

As you will find chronicled in the following pages, Strathmore University continues to broaden its research horizons and extend its partnerships. This is shown by the number of grants won by researchers at various schools and research centres within the University, as well as the publications made by staff members throughout the year.

It is also borne out by the fact that research reporting has become more robust since we started measuring our research activity. However, as shown in the introduction, there is still a lot of room for growth in this area. The Research Services Office is keen on continuously improving the quality of research reporting, so as to portray the University's research activities more accurately.

In this task, we count on collaboration with all schools and research centres, to whom all the credit goes for the activities reported in this document. We look forward to working with them to come up with an even more comprehensive report for 2018.

Ismail

Prof Ismail Ateya

Dean - Research and Innovation

Introduction

This annual report reflects the undertakings of the University community in the fields of research and innovation during 2017. It is also an attempt to reflect the contribution of individuals, centres and schools to the growth and strategic positioning of the institution as a reputable research and entrepreneurial university.

Institutions of higher learning have a grave responsibility to catalyse socioeconomic development through, among other things, research and innovation. This is especially true of African universities, which have a unique opportunity to influence the ongoing economic rise of the continent. Strathmore University is not exempted from this duty.

Kenya's Vision 2030 recognises the key role science, technology and innovation will play in driving development, social transformation and international competitiveness. Likewise, the Sustainable Development Goals (SDGs), can only be achieved by the assiduous application of scientific knowledge to solve problems.

This report has been produced by the Research Services Office in collaboration with the various academic and research units of the University. It is organised according to the schools and research centres. Reports from research centres affiliated with schools are embedded in the reports from the schools to which they are affiliate. In each section, the key approach is to highlight the major research undertakings and outputs achieved throughout the year.

Traditionally, the clearest indicator of the richness of research activity in a university is the quantity, diversity and depth of publications from its staff members. This is an area in which, as shown by this report, the University still has a lot of room for growth. In 2017, researchers in Strathmore University (co)authored a total of 66 papers in peer-reviewed journals.

This translates to one paper for every five academic staff members of the University. It is far short of the ideal of a minimum of two high-quality papers per researcher per year. Schools and research centres have to put in more effort to establish better environments for research to be undertaken by their members.

Another key indicator of research activity is the number of research events held and attended by staff members. Coincidentally, this number also comes to 66. However, because events typically involve more than one individual, performance on this metric was decidedly better than in publications. However, there is also a lot of room for improvement in this.

As highlighted by the 2016 report, research centres remain the major drivers of growth in research. They create the right environment for more consistent and intense research-related activities and realise more outputs. In 2017, four new research centres, all based at Strathmore Law

School, were officially approved. Their impact is already being felt.

Collaboration, a key ingredient of impactful research and, coincidentally, the corporate theme of the University this year, is also clearly evidenced by this report. A lot of the activities undertaken by schools and research centres were the fruit of cooperation with other researchers in the university and with external partners. Furthermore, a large number of published papers were co-authored with researchers from other institutions.

2017 was also the year when the Research Services Office started putting in place various structures to encourage interest in research and innovation. A major initiative, the four-day 2017 Research and Innovation Symposium, attracted 106 presentations in nine thematic areas. 35 of these presentations came from undergraduate students. The symposium was attended by over 600 participants, including 55 from industry.

The Research Services Office is keen on making this initiative sustainable. This is in recognition of the fact that such events arouse interest in research and innovation while lowering the barrier of entry into the field. Future editions of the symposium will take place every two years, alternating with a similarly biennial but more rigorous Research and Innovation Conference.

These initiatives, alongside several others, are underpinned by the new five-year Research and Innovation Strategy. Covering the period from 2017 to 2021, the strategy was launched at the end of the Symposium by the chair of the University Council, Mrs Bernadette Musundi. It is now being implemented by the Research Services Office in collaboration with the schools and research centres.

The strategy focuses on high-quality research; highly-trained staff and impact on society as the main pillars of research and innovation at the University. They will be enabled by concentrating on the University's competitive strengths; prioritising ethics and integrity; pursuing interdisciplinarity; and utilising collaboration and existing resources. Its successful implementation will turn Strathmore University into a research and innovation hub

In conclusion, this is only the second Annual Report from the University. While it endeavours to be more comprehensive than the last one, it still covers only a part of the story. A key focus during 2018 will be to collect more information by strengthening reporting mechanisms, alongside other initiatives envisioned in the new strategy.



SCHOOLS

The schools within Strathmore University are the primary loci of research and innovation within the University. It is from them that more specialised research vehicles, like research groups and centres, are spawned. During the period covered by this report, Strathmore University had seven schools. Since then, two of these schools, the School of Management and Commerce and the Strathmore Business School, have been merged into one, which is now called Strathmore University Business School. This report contains a segment on each of the former schools since it predates the change.



STRATHMORE LAW SCHOOL

10

Running Grants

11

Research Events

15

Publications

Strathmore Law School was launched in 2012. To fulfil its research mandate, the school has founded six research centres and institutes on Alternative Dispute Resolution; International Criminal Justice; Intellectual Property and Technology Law; Tax Law; Business and Human Rights; Extractive Industries Law; and Law and Policy.

The centres are an avenue for staff members to remain relevant in practice. By attaching themselves to specific research centres, they gain access to research grants, legal opinions, text books, articles and other publications. Consequently, they deepen their knowledge and skills while also helping Kenya to become an academic and professional knowledge hub.

Each centre also involves students as interns. These students develop a passion and skills for the subject area they have chosen. It also helps them to earn an income to offset part of their fees or sustenance expenses.

Dr Luis Franceschi is the Dean of the School. Research efforts are overseen by Dr Joy Malala, the Research Director.

Grants

The following grants were awarded to or run by researchers based at Strathmore Law School in 2017:

- Research on High Tech Hubs in East Africa: This grant was awarded by SSHRC - IDRC in 2014. It amounts to USD 2,500,000. The grant is being run by Dr Isaac Rutenberg of CIPIT and will last until 2021.
- Internet Censorship in Kenya: The grant, amounting to USD 14,791, was awarded by Privacy International to Dr Isaac Rutenberg. It will run from 2017 to 2018.
- Internet Freedom and the electoral process in Kenya: The grant was awarded by Ford Foundation to Dr Isaac Rutenberg and has been running since 2016. Amounting to USD 50,000, the grant will run till 2018.
- Research and Training in Innovation in Kenya: The grant was awarded by Pfizer in 2017 to Dr Isaac Rutenberg. It will run until 2018. It amounts to USD 50,000.
- Socio-economic impact of international disruption of internet connectivity in Africa: Awarded by Facebook and run by Dr Isaac Rutenberg, this USD 10,000 grant ran throughout 2017.
- SIASIC Wildlife Centre activities: This grant was awarded by WWF and started in 2016. Run by Peter Odhiambo, it will end in 2018. It amounts to USD 307,363. It is meant to support training and research activities at the centre.
- Annual Conference 2017: The grant was awarded by Konrad Adenauer Stiftung to Peter Odhiambo to support the expenses for the July 2017 conference. It ran from February 2017 to July 2017 and amounted to USD 36,884.



Launched in September, the Policy Innovation Centre at Strathmore Law School, set up in collaboration with Microsoft, provides a platform to foster dialogue on policy issues related to the biggest development challenges facing the world today.

- Annual Training 2017: This grant was awarded by the Swiss Agency for Development and Cooperation and was run by Peter Odhiambo from March 2017 to July 2017. The USD 24,589 grant supported expenses incurred during a training for prosecutors held in May 2017.
- Annual Training 2017: Awarded by the International Nuremberg Principles Academy and run by Peter Odhiambo from May 2017 to July 2017, this USD 24,589 grant also supported SIASIC's annual training for Prosecutors.
- Annual Conference 2017: Also awarded by International Nuremberg Principles, this grant was run by Peter Odhiambo from July 2017 to August 2017. It amounted to USD 24,589 and supported expenses for SIASIC's annual conference in July 2017.

Research Events Organised

The following research events were organised and held by the school:


- Strathmore University Law School Colloquium: The event took place on 24th February 2017. During the Faculty colloquium, staff members who were then writing academic works presented their preliminary papers to colleagues and had them critiqued.

FEATURED RESEARCHER



Dr Isaac Rutenberg
SENIOR LECTURER

Dr Isaac Rutenberg is a Senior Lecturer at Strathmore Law School. He is also the Director of the Centre for Intellectual Property and Information Technology Law (CIPIT), which is based at the school. He has two Bachelor of Science degrees from the Colorado School of Mines - in Chemistry and in Mathematics/Computer Science. He also has a PhD in Chemistry from the California Institute of Technology. His graduate research advisor was Robert H. Grubbs, the 2005 Nobel laureate in Chemistry. Dr Rutenberg also obtained a JD from Santa Clara University School of Law in May 2011. He is registered to practice law in California, and is also registered to practice before the United States Patent and Trademark Office. He has authored articles for a variety of publications and spoken at numerous conferences in Kenya, primarily focusing on practical aspects of intellectual property (IP).



In the course of 2017, researchers based at Strathmore Law School attended 11 research events in various parts of the country and abroad. One of these events, the "Strathmore University Law School Colloquium" was held at the school.

Research Events Attended

The following events were attended by members of SLS:

- Know Your Rights Conference: This event was attended by Dr Isaac Rutenberg.
- Conference on Intellectual Property Rights: The event was organised by, and held at, Jomo Kenyatta University of Agriculture and Technology (JKUAT). It took place between 13th and 14th July 2017. It convened scholars to discuss intellectual property matters in Africa over the previous year. It was attended by Isaac Rutenberg.
- Law Society of Kenya Seminar on Intellectual Property Laws: This event took place on 7th April 2017. It was organised by the Law Society of Kenya and discussed the state of intellectual property law in Kenya. It was attended by Isaac Rutenberg.
- Conference on consumer law and policy in Africa: Organised by the University of Cape Town and the South African National Research Foundation, this event took place between 10th and 11th April 2017. It brought together experts in finance and law to discuss matters concerning consumer law and policy in Africa. It was attended by Joy Malala.
- International Conference on Conflict, Terrorism and Society: The event took place between the 16th and 17th February 2017. It was organised by International Lawyers Club UK. The conference brought together experts to discuss cyber terrorism and human rights. It was attended by Allan Mukuki.
- Right to Health for HIV/AIDS Victims Conference: Taking place on 29th September 2017, this event was organised by KELIN. It brought together experts to discuss the right to health with regard to HIV/AIDS victims in Kenya and was attended by Smith Otieno.
- Interdisciplinary Workshop on Universal Health Coverage: Organised by Warwick University, this workshop convened experts from around the world to discuss universal health coverage and related issues from an interdisciplinary perspective. It took place on 19th April 2018 and was attended by Smith Otieno.
- CopyRight X GoDown 2017: This workshop took place between 13th and 25th April 2017. Organised by GoDown Institute Nairobi

and facilitated by Harvard Law School, the event allowed a mix of lawyers and artists to learn about Copyright Law. It was attended by Victor Nzomo.

- Election Security 2017 – Countering the challenges: The event took place on 17th June 2017. It was organised by UNDP and the Africa Digital Media Institute. It featured discussions on the lessons that could be learned from Kenya’s 2017 general elections, with special regard to digital election security. It was attended by Moses Karanja.
- Internet Freedom Festival: The Internet Freedom Festival took place between 6th and 10th March 2017. Participants attended sessions that delved into the challenges and prospects facing internet freedom in Kenya. A second segment of the event, organised by KICTANET, took place on 26th April 2017. Both sessions were attended by Moses Karanja.

Publications

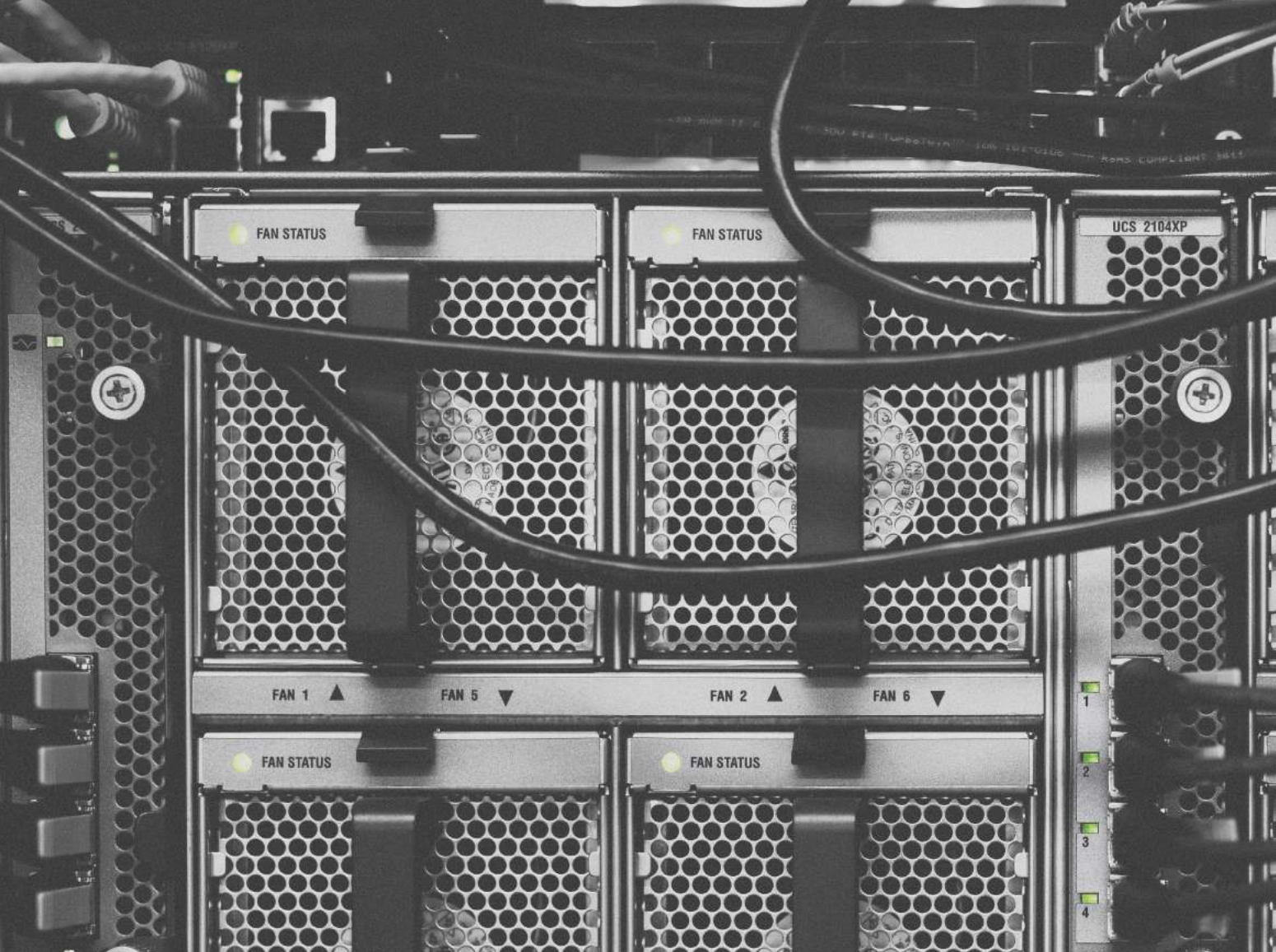
Researchers based at Strathmore Law School published the following papers in 2017:

- Asin J., 2017, “South Africa is not an accused: State (non) Co-operation with the ICC and the case of the Arrest Warrant for President Omar Al Bashir,” Strathmore Law Journal, Vol 3, Issue 1.
- Kariuki F. and Ng’etich R., 2017, “Land Grabbing, Tenure Security and Livelihoods in Kenya,” African Journal of Legal Studies. Vol 9, Issue 2.



Published in the second issue of the ninth volume of the African Journal of Legal Studies, Francis Kariuki's paper titled "Land Grabbing, Tenure Security and Livelihoods in Kenya" examined the impact of historical land-grabbing on tenure security and livelihoods amongst communities in Kenya.

- Malala J., 2017, "Dissemination of Consumer Law and Policy in Kenya," *European Journal of Consumer Law and Policy*.
- Mukuki A., 2017, "The Nexus between Counter-Terrorism and Human Rights with a Perspective on Cyber Terrorism," *International Journal of Humanities and Social Sciences*, Vol 4, Issue 2.
- Mukuki A., 2017, "The Sacrosanct? The Challenge in holding the United Nations responsible for failure to Prevent Genocide," *Strathmore Law Journal*, Vol 3, Issue 1.
- Otieno H., 2017, "Discreet Discretion and Moderate Moderation in Judicial Sentencing: A Commentary on Kenya's Sentencing Policy Guidelines 2016," *Strathmore Law Journal*, Vol 3, Issue 1.
- Otieno S. and Abe O., 2017, "A Re-Assessment of the Impact and Potency of Traditional Dispute Resolution Mechanisms in Post-Colonial Africa," *Ave Maria International Law Journal*, Vol 6
- Otieno S. and Abe O., 2017, "Regional Integration, Public Health Preparedness Capabilities and the Place of the World Health Organisation in Africa," *Albany Law Journal of Science and Technology*. Vol 27, Issue 3.
- Otieno S. and Amutete C., 2017, "Engendering Rule of Law in Health Care Delivery in Kenya," *Wisconsin Journal of International Law*, Vol 35, Issue 1.
- Otieno S., 2017, "Agricultural Investments: The New Frontier of Human Rights Abuse and the Place of Development Agencies." *Journal of Food Law and Policy*, Vol 12, Issue 2.
- Otieno S., 2017, "Recurrent Chronicles of Environmental Injustice in the Northern Frontier Districts and the Kenyan Coast," *Berkeley Journal of African-American Law and Policy*.
- Rutenberg I. and Mwangi J., 2017, "Do Patents and Utility Models Certificates Encourage Innovation in Kenya?" *Journal of Intellectual Property Law and Practice*, Vol 12, Issue 3.
- Rutenberg I. and Makanga L., 2017, "Utility Model Protection in Kenya: The Case for Substantive Examination," *African Journal of Information and Communication*, Vol 16, Issue 19.
- Rutenberg I. and Mwangi J., 2017, "A Framework for Assessing Technology Hubs in Africa," *NYU Journal of Intellectual Property and Entertainment Law*, Vol 6, Issue 2.
- Wangai M., 2017, "Religious Pluralism in Practice: Defying Secularism in Kenya's Headscarf cases," *Strathmore Law Journal*, Vol 3, Issue 1.



FACULTY OF INFORMATION TECHNOLOGY

04

Running Grants

07

Research Events

15

Publications

The Faculty of Information Technology is one of the oldest schools in Strathmore University, with origins that predate the University itself. It engages in research in diverse areas.

These areas include database systems, software engineering, open source software, mobile technologies, management information systems, ICT for development, and innovation and technology transfer.

The faculty considers research to be the driver for bridging the digital divide and promoting an information economy. To promote research, faculty are encouraged to seek research grants/contracts and other external funding to enhance programmes, research and other activities.

The Dean of FIT is Dr Joseph Orero. Dr Bernard Shibwabo is the Research Director.

Grants

The following grants are were being run in FIT in 2017:

- Joint Research Grant under the South African/Kenya – Research Partnership Programme Bilateral Agreement 2016/2017: Awarded by the National Research Fund (NRF), this grant was run by Dr Ozianyi, from FIT, and Dr Kogeda (South Africa). It is funding an experimental research project that aims to develop a smart metering system prototype for providing advice on water usage in order to encourage the minimisation of wastage. The grant, amounting to USD 29,629, will run from 15th January 2017 to 15th December 2019.
- SU Staff Development Fund: Three FIT staff members (Esther Khakata, Elizabeth Wamicha and Roent Ombasa) obtained a grant from the Strathmore University Staff Development Fund.
- DAAD In-country PhD scholarship/grant: Derdus Mosoti successfully obtained a DAAD in-country PhD grant. The grant, amounting to USD 4,640, started running in September 2017 and will end in August 2018. It will enable him to do part of his PhD.
- DAAD PhD Grant: This grant was awarded by the National Research Fund (NRF) to Henry Muchiri to undertake his PhD. The grant amount is USD 1,100, and it runs from 2017 to 2019.

FEATURED RESEARCHER

Henry Muchiri is a Doctoral Fellow at the Faculty of Information Technology, where he also obtained his Bachelor of Business Information Technology and Master of Science in Information Technology degrees. For his doctoral thesis he is looking into using machine learning, a form of artificial intelligence, to detect concealed firearms. He started looking into the matter because current methods of concealed firearm detection in Kenya (handheld metal detectors, walk-through metal detectors, infrared technologies, non-automated video surveillance systems), have several limitations with the requirement of physical proximity being the major limitation. The research proposes to analyse the body language of people. He is currently working with students to train his machine learning algorithms.



Henry Muchiri
DOCTORAL FELLOW

Research Events Organised

The following research events were organised and held by the school:

- IEEE PACT Conference: Pan African Conference on Science, Computing and Telecommunication: The event took place from 7th to 9th March 2017. Its purpose was to support and stimulate active productive research which could strengthen the technical foundations of engineers and scientists in the continent, develop strong technical foundations and skills and lead to new small- and medium- enterprises within Africa.
- FIT Doctoral Colloquium: The doctoral colloquium was organised to enable doctoral students within FIT to share the progress they had made up to that point. It was co-organised with the School of Graduate Studies.



The 2017 Pan African Conference on Science, Computing and Telecommunications (PACT) was organised by the Faculty of Information Technology and technically sponsored by the Institute of Electrical and Electronics Engineers (IEEE). This photo shows some of the participants on the last day of the event.

Research Events Attended

The following events were attended by staff members from FIT:

- East Africa Academy Instructors Conference: Organised by CISCO Networking Academy, this conference took place on 25th and 26th July 2017. It offered training on the programmes run by the Academy. Roent Ombasa attended it, representing FIT.
- Challenge Based Education: Dr Bernard Shibwabo and Ruth King'ori attended a training on Challenge Based Education at KTH in Sweden between 21st and 25th August 2017.

- Nairobi Innovation Week: This event was organised by the University of Nairobi and ran from 6th to 10th March 2017. It was attended by Philip Neri.
- 4th Strathmore International Mathematics Conference: Attended by Derdus Mosoti, this event was organised by Strathmore Institute of Mathematical Sciences and took place from 19th to 23rd June 2017.
- SAICSIT 2017: This event was organised by the Central University of Technology University of the Free State in South Africa for researchers and lecturers doing research within South African universities. It took place from 26th to 28th September 2017 and was attended by Elizabeth Wamicha.

Publications

The following papers were published in 2017 by researchers based at FIT:

- Machanje D. and Orero J., 2017, "Automatic Security Monitoring and Alert System through Sound Analysis," International Journal of Computer Applications (IJCA), Vol 169, Issue 8.
- Omondi A, Mundama B. and Katunge J., 2017, "A Timetable System for Institution of Higher Learning: Case Study Strathmore University," International Journal of Research Studies in Science, Engineering and Technology (IJRSSET), Vol 5; Issue 2; pp 1-3.
- Shibwabo B, and Kabiuru R., 2017, "Prototype for Authentication of Secondary School Certificates: A Case of Kenya Certificate of Secondary Education, International Journal of Innovative Research and Knowledge," Vol 2, Issue 88, pp 52-66.
- Shibwabo B, and Nahimana G., 2017, "A System for Recommending Rental Properties," Journal of Systems Integration, Vol 8, Issue 3, pp 10-18.
- Shibwabo B., and Kinyua K., 2017, "A Universal Mobile Money Transfer Platform," International Journal of Computer Applications (IJCA), Vol 175, Issue 6, pp 40-47.
- Shibwabo B., Mutua S. and Mutua R., 2017, "An Automatic Number Plate Recognition System for Car Park Management," International Journal of Computer Applications (IJCA), Vol 175, Issue 7, pp 36-42.



STRATHMORE BUSINESS SCHOOL

03

Running Grants

14

Research Events

14

Publications

Strathmore Business School has seven research hubs. The hubs focus on Organisational Behaviour and Leadership; Healthcare Systems; Strategy and Competitiveness; Financial Services, Public Policy and Governance; and Entrepreneurship and Agribusiness. The aim of the research hubs and centres is to encourage faculty members to engage in research activities and to identify grant opportunities as a way of raising funds. The Dean of SBS is Dr George Njenga. The Research Director is Dr Edward Mungai.

Grants


The following grants were run in SBS in 2017:

- STAR (Social Technical Approach to Road Safety): The grant was awarded by University of Southampton and is being run by Prof Kokwaro. The grant will run from 1st October 2017 to 30th June 2021. The grant amount was USD 765,306.12 . The grant was meant to identify the processes through which the regulatory innovations are expected to influence quality/safety, and investigate the degree to which these have been implemented and why. It was also meant to explore the perceived legitimacy of interventions by regulators, healthcare providers and other stakeholders, in terms of their fairness and acceptability.
- HRH (Human Resource Health Kenya Mechanism): This grant was awarded to Prof. Gilbert Kokwaro by Intrahealth. Amounting to USD 522,640, it started running in August 2017.
- HSRI: This grant was awarded to Dr Frank Wafula by the Medical Research Council, this USD 320,745 grant started running on 2nd January 2017 and will continue to 1st July 2019.

Research Events Attended

The following events were attended by members of SBS:

- Crossing Boundaries Meeting in Oxford: The event was organised by Oxford University. It took place on 7th December 2017 and was attended by Mary Musyoka.
- HSD-N Meeting: The event was organised by Oxford University. It took place from 4th to 8th December 2017. Mary Musyoka attended the event.
- National Nurses Association of Kenya Annual Scientific Conference: The event was organised by the National Nurses Association of Kenya. The event took place from 6th to 8th December 2017 and was attended by Anita Musiega.
- International Health Economics Association (iHEA) meeting: The event was organised by Boston University, and took place in July 2017. Dr Pratap Kumar attended the event.
- Global Educators Network in Health Innovation (GENiE) meeting: Organised by Harvard University, this event took place in October 2017 and was attended by Dr Pratap Kumar.
- Crossing Boundaries meeting: The event was organised by Oxford University. It took place in December 2017 and was attended by Dr Pratap Kumar.



Delegates at the third Crossing Boundaries conference at Oxford University in December 2017. The event was attended by Dr Pratap Kumar, a Senior Lecturer at the Institute of Healthcare Management in Strathmore University Business School.

Image Credit: Crossing Boundaries 3

- World of Healthcare Conference: Taking place from 26th to 30th September 2017, this event was organised by Dutch Task Force Healthcare. Prof Gilbert Kokwaro attended it, as one of ten delegates from Kenya, to learn more about the Dutch healthcare sector and international public health issues
- India-Africa Research Alliance conference: The event was organised by New Delhi University in India. It took place from 5th to 7th April 2017 and was attended by Prof. Gilbert Kokwaro. The event was meant to delineate specific activities under the India-Africa Health Sciences Collaboration in the areas of Health Sciences Research and Development; Training and Capacity Building; and Pharmaceutical Manufacturing and Trade.
- Blended Learning Partnership Workshop: The event was organised by Neu Ulm University, Germany. It took place from 3rd to 7th September 2017. Prof. Gilbert Kokwaro attended the event to explore the possibility of using blended learning for the Hospital Management Executive course at SBS.
- Unlocking Kenya's economic potential through investment in research and development of health technologies: The event was organised by PATH in collaboration with Strathmore University. It took place on 13th September 2017 and was attended by Prof Gilbert Kokwaro. It provided an opportunity to link diverse stakeholders in health innovation. It also offered a platform to initiate joint planning on how to engage the government to create and maintain an enabling policy environment for health research

and innovation.

- Health Tourism Meeting: The event was organised by the University of Nairobi and co-hosted by the Global Partnership for Sustainable Development Data (GPSDD), the Governments of Kenya and Sierra Leone, and Safaricom, in collaboration with the Governments of Ghana, Senegal and Tanzania, the African Development Bank (AfDB), and the United Nations Economic Commission for Africa (UNECA). It took place on 29th and 30th June 2017 and was attended by Prof Gilbert Kokwaro.
- SAAA/AAFA/IAAER conference: The event was organised by Drakensberg, KZN, South Africa. It took place on 26th June 2017 and was attended by Dr David Mathuva.
- Africa Congress of Accountants (ACOA): The event took place in Kampala, Uganda from 2nd to 5th May 2017. It was attended by Dr David Mathuva and two others.
- Pan African Federation of Accountants and African Accounting and Finance Association: The event took place on 1st April 2017 and was attended by Dr David Mathuva

Publications

SBS researchers published the following papers in 2017:

- Kokwaro G., Kimulwo M., Okendo J., Aman R., Ogutu B., Ochieng D., Muigai A., Oloo F. and Ochieng W., 2017, "Plasma nevirapine concentrations predict virological and adherence failure in Kenyan HIV-1 infected patients with extensive antiretroviral treatment exposure," PLoS ONE.
- Kumar P., Musiega A., Rabut G., Wekesa P. and Marx M., 2017, "Rubber stamp templates for improving clinical documentation: A paper-based, m-Health approach for quality improvement in low-resource settings," International Journal of Medical Informatics.
- Nyikuri M., Tsofa B., Okoth P., Barasa E. and Molyneux S., 2017, "We are toothless and hanging, but optimistic," sub county managers' experiences of rapid devolution in coastal Kenya," International Journal for Equity in Health.

RESEARCH

Open Access



“We are toothless and hanging, but optimistic”: sub county managers’ experiences of rapid devolution in coastal Kenya

Mary M. Nyikuri^{1,5*}, Benjamin Tsofa¹, Philip Okoth¹, Edwine W. Barasa^{2,6} and Sassy Molyneux^{1,3,4}

- Tama E., Barasa E., Molyneux S., Chuma J., Waweru E. and Tsofa B., 2017, “ Examining the implementation of the free maternity services policy in Kenya: a mixed methods process evaluation,” *International Journal of Health Policy and Management*.
- Kokwaro G.O ,Maureen J. Kimulwo, Javan Okendo, Rashid A. Aman, Bernhards R. Ogutu, Dorothy J. Ochieng, Anne W.T. Muigai, Florence A. Oloo, and Washington Ochieng, 2017 , “Plasma nevirapine concentrations predict virological and adherence failure in Kenyan HIV-1 infected patients with extensive antiretroviral treatment exposure ,” *PLoS ONE*.
- Mathuva, D.M. and Kiweru, J.M, 2017, “Achieving legitimacy through co-operative governance and social and environmental disclosure by credit unions in developing countries.” *Journal of Applied Accounting Research*.
- Mathuva, D.M, Chong G.H. 2017, “Impact of regulatory reforms on compliance with mandatory disclosures by savings and credit co-operatives in Kenya” *Journal of Financial Regulation and Compliance*.
- Mathuva, D.M, 2017, “Drivers of the decision to participate in financial reporting awards by savings and credit cooperatives in Kenya,” *Journal of Accounting in Emerging Economies*.
- Mathuva, D. M, Barako, D. G, and Wachira, M.M, 2017, “The Economic Consequences of Environmental, Social and Governance Disclosures by Firms Quoted on the Nairobi Securities Exchange,” *African Accounting and Finance Journal*.
- Mathuva, D.M, Mboya, J., and McFie, J.,2017, “Achieving legitimacy through co-operative governance and social and environmental disclosure by credit unions in a developing country,” *Journal of*

Applied Accounting Research,

- Onyango J.O, 2017, "Empirical Analysis on the unity of Research Design in Change Management," International Journal of Business Management & Research.
- Patrick. S. and Wagura N., 2017, "Effects of Mergers on Processed Milk Market in Kenya," Journal of Agribusiness in Developing and Emerging Economies forthcoming.
- Wagura .S.N., Kibunyi. D., Carcel. H., and Luis A.G.A., 2017, "Real Estate Prices in Kenya: is there a bubble?" Journal of the housing and built environment.

Book Chapters

Prof Gilbert Kokwaro of SBS published the following book chapter in 2017:

- Kokwaro G., "Boards and Good Governance," in "Advances in Global Health Management and Policy: Strengthening the Development, Organization and Delivery of Health Services." Edited by Michael Counte, Dan West, Bernardo Ramirez, and Bill Aronson. Co-authored by James A. Rice, EgbeOsifo-Dawodu, and Godfrey Sikipa.



SCHOOL OF MANAGEMENT AND COMMERCE

03

Running Grants

05

Research Events

05

Publications

The School of Management and Commerce considers research to be an important activity, in line with the overall university strategic pillars. The school focuses on research in and across a number of disciplines. These are accounting, finance, human resource management, marketing, management science and entrepreneurship. In the period covered by this report, the Dean of SMC was Dr David Wang'ombe. The Research Director was Dr Hellen Otieno

Grants

The following grants were won or run in SMC in 2017:

- International Summer University 2017 at Vienna University of Economics and Business: This grant was awarded by Strathmore University and run by Tabitha Njuguna from 10th July to 28th July 2017. It amounted to USD 4,660 and was meant for staff development in International Financial Management, International Strategy and Project Management
- PhD Research Funding: This grant was awarded by Strathmore University to Stella Nyongesa and ran until February 2017. Amounting to USD 6,020, it was meant to fund a project to determine the influence of relationship marketing, social performance management practices and firm characteristics on customer retention within micro-finance institutions in Kenya.
- 18th Annual IAABD Conference: This grant was awarded by Strathmore University for the above-mentioned conference, which took place in Atlanta, USA from 17th May to 20th May 2017. The conference covered the theme "Interventions at the bottom of the pyramid: the impact of mentoring and training on performance of Microenterprises." The grant amounted to USD 3,675.

Research Events Organised

The following events were organised and held by the school:

- 5th SEDC Annual SME Conference: The event took place on 15th and 16th June 2017. Its purpose was to provide a platform for entrepreneurs to interact, engage and learn from each other and from business experts.
- Training Workshop: Co-organised with SBS, this training workshop was held from 5th to 7th December 2017. It was designed to develop the teaching skills of faculty members. It also created an opportunity for the identification of areas of collaborative research between the faculty and industry.



Delegates at the 4th SEDC Annual SME Conference. The 5th edition took place on 15th and 16th June 2017 at Strathmore University.

Research Events Attended

The following events were attended by staff members of SMC:

- International Conference on Business, Economics, Management and Marketing: Organised by the University of Oxford, this event took place from 14th to 16th August 2017. It was attended by Stella Nyongesa.
- 46th International Business Research Conference: The event was organised by the University of Oxford and took place on 20th and 21st November 2017. It was attended by Stella Nyongesa.
- 17th IAABD Conference: This event was organised by J. Mack Robinson College of Business, Georgia State University. It took place from 16th to 19th May 2017 and was attended by Dr Hellen Otieno.



Dr James Njuguna's paper in the British Journal of Marketing Studies focused on how the country of origin of foreign clothing influences consumer attitudes.

Photo by Ashim D'Silva on Unsplash

Publications

Staff members of SMC published the following papers in 2017:

- James N., 2017, "The Influence of Country-of-Origin on Consumer Behaviour towards Foreign Clothing Brand in Nairobi, Kenya' during."
- Nguti L. and Kiraka R. N., 2017, "Influence of Social Cognitive Factors on Career Choice Satisfaction within the Technology Career Path in Sub-Saharan Africa: A Gendered Perspective."
- Nyongesa S., 2017, "The Joint Influence of Relationship Marketing, Social Performance Management and Firm Characteristics on Customer Retention by Microfinance Institutions in Kenya."
- Nyongesa S., 2017, "The Moderating Effect of Social Performance Management on Relationship Marketing and Customer Retention by Microfinance Institutions in Kenya."
- Otieno H. and Wang'ombe D., 2017, "Interventions at the bottom of the pyramid: The impact of mentoring and business training on performance of microenterprises in Dandora slum in Nairobi, Kenya."



SCHOOL OF TOURISM AND HOSPITALITY

03

Running Grants

05

Research Events

05

Publications

The School of Tourism and Hospitality offers degree courses in hospitality and tourism management. It aims to produce a positive transformation in tourism and hospitality education and in industry practice. Its research activities are focused on building staff capacity in research and consultancy, generating publications, establishing and nurturing institutional and industry collaboration, winning grants, as well as participating in, and hosting, conferences to promote the building of critical networks and linkages. The dean is Dr Virginia Gichuru and the Research Director is Dr David Chiawo.

Grants

The following grants were won and run in STH in 2017:

- Travel Grant: Amounting to USD 2,050, this grant was awarded by International Foundation for Science to Dr David Chiawo on 4th October 2017.
- Training and Travel: This grant was awarded by the British Council and Newton Fund to Joy Goopio on 26th September 2017.

Research Events Organised

The following events were organised and conducted by the school:

- 35th EuroCHRIE Conference: The event took place between 23rd and 25th October 2017. It was an academic conference for hospitality and tourism educators from all over the world.
- Research Workshop: The conference took place on 24th April. The event was a platform for lecturers and students to present their research projects.



Delegates at the 35th EuroCHRIE Conference, a conference for hospitality and tourism educators from around the world. It took place at Strathmore University from 23rd to 25th October 2017.

Research Events Attended


The following events were attended by STH staff members:

- Sustainability and Human Resource Management in Africa: Organised by the University of Strathclyde, University of Johannesburg and Moi University, this event took place between 26th and 29th September 2017. It was attended by Joy Goopio.
- 35th EuroCHRIE Conference: This event took place between 23rd and 25th October. Organised by University College of Northern Denmark (Denmark) and Saxion University of Applied Sciences (Netherlands), it was an academic conference for hospitality and tourism educators all over the world. It was the annual conference of the European federation of the international professional body, ICHRIE. It was attended by 11 staff members of STH, including Dr Virginia Gichuru and Dr David Chiawo.
- Strengthening the role of universities in developing countries: The event took place in Berlin between 27th and 29th November 2017. Its purpose was to strengthen the role of universities in developing countries. It was attended by Dr Virginia Gichuru.
- 5th World Research Integrity Conference: This event took place in Amsterdam. It was attended by Dr Virginia Gichuru.
- SBS Women 4.0 Global Conference: The event took place between 8th and 9th March 2017. It was organised by Patricia Murugami. It aimed at enabling women in leadership to reinvent themselves in several key domains. The event was attended by Dr. Lucy Gikonyo.
- Rights and resources: The event was organised by the Swedish International Development Agency. The event took place between 4th and 7th October 2017. It explored the theme "Inequality in a Turbulent World: Scale-up strategies to secure indigenous, community, and women's land rights."

Publications

The following papers were published by Dr David Chiawo, who is based at the School of Tourism and Hospitality:

- Chiawo, D.O., 2017, "Bird responses to land use change: Guild diversity in a Kenyan coastal forest and adjoining habitats," *Emu-Austral Ornithology*. DOI: 10.1080/01584197.2018.1431052.
- Chiawo, D.O., 2017, "Innovative Research for Sustainable Tourism: Does It Matter to Tourism Businesses?" *Sustainable Tourism Report East Africa*.(7) 22-24
- Chiawo, D.O., 2017, "Bee diversity and floral resources along a disturbance gradient in Kaya Muhaka Forest and surrounding farmlands, coastal Kenya," *Journal of Pollination Ecology*.20 (6) 51-59.
- Chiawo, D.O., 2017, "Conservation and human livelihoods at the crossroads: local needs and knowledge in the management of Arabuko Sokoke Forest," *African Journal of Ecology*, DOI: 10.1111/aje.12462.



Dr David Chiawo's paper in the *African Journal of Ecology* was titled "Conservation and human livelihoods at the crossroads: local needs and knowledge in the management of Arabuko Sokoke Forest."

Photo by Ben Lockwood on Unsplash



STRATHMORE INSTITUTE OF MATHEMATICAL SCIENCES

08

Research Events

29

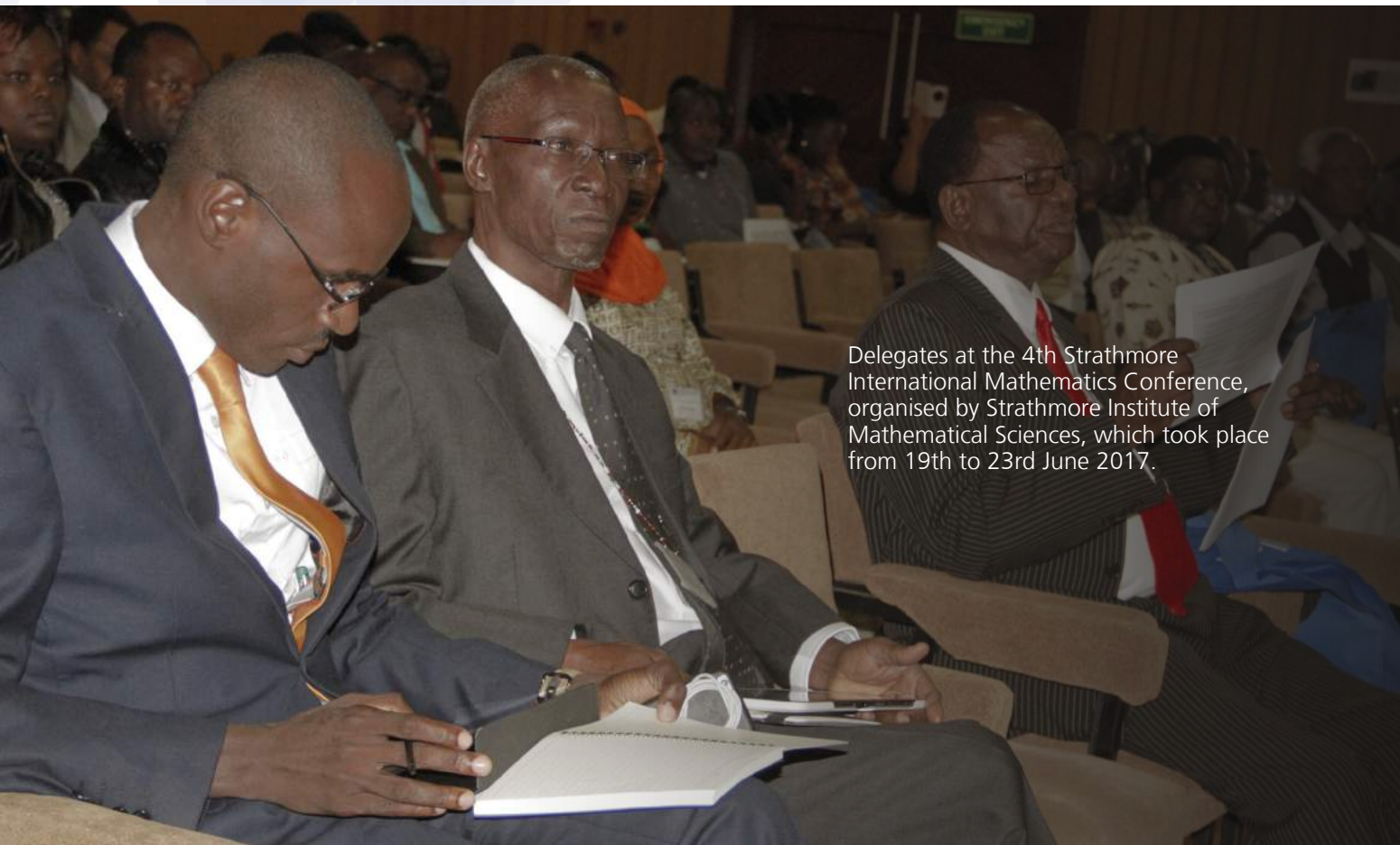
Publications

The Strathmore University Institute of Mathematical Sciences (SIMS) was established in 2010. The mandate of the institute is to conduct and coordinate mathematical-based research in the University and to initiate, promote and undertake collaborative research with industry and other institutions of higher learning. These collaborations between the Institute and other faculties and organizations is intended to serve as a driver for research enhancement and innovation across the University. Ferdinard Othieno is the Dean of SIMS. The Research Director is Dr Rachel Waema Mbogo.

Research Events Organised

The following event was organised and held by the school:

- 4th Strathmore International Mathematics Conference (SIMC): The event took place from 19th to 23rd June 2017. Its objective was to provide a forum for researchers, educators, students, contributors, users of mathematical knowledge and industries to exchange ideas, communicate and discuss research findings and new advancements in mathematics and statistics. It was also meant to explore possible avenues to foster academic and student exchange as well as scientific activities; and to promote and encourage exchange of ideas on recent discoveries in the fields of mathematics, statistics and mathematical education.



Delegates at the 4th Strathmore International Mathematics Conference, organised by Strathmore Institute of Mathematical Sciences, which took place from 19th to 23rd June 2017.

Research Events Attended

The following events were attended by members of SIMS:

- Data Driven Development in African – Dealing with missing data in public health: Case of Contraceptive data in Kenya: The event was organised by the Penn State University in the United States. It took place from 10th to 13th May 2017. Collins Odhiambo attended it.

- 61st International Statistics Congress – Validation of the Smooth Test of Goodness-of-Fit for Proportional Hazards in Cancer Survival Studies: The event was organised by Marrakesh University in Morocco. It took place from 4th to 15th July 2017 and was attended by Dr Collins Odhiambo.
- Southern Africa Mathematical Sciences Association (SAMSA) Conference: The event took place from 20th to 23rd November 2017 in Arusha, Tanzania. It was attended by Titus Orwa, Raymond Ochieng, Evans Omondi, Prof Vitalis Onyango, Prof Livingstone Luboobi, Dr Rachel Mbogo, Marine Akoth and Nelson Bii.
- 10th RGS Doctoral Conference in Economics: This event took place on 1st and 2nd May 2017 in Dortmund, Germany. It was attended by Dr Godfrey Madigu.
- Kenya Paediatric Association 17th Annual Scientific conference: The event took place from 25th to 28th April 2018 and was attended by Dr Rachel Mbogo.
- African Economic Research Consortium Conference: This event took place from 4th to 8th December 2017 in Senegal and was attended by Dr Samuel Tiriongo.
- 60th Annual Meeting of the African Studies Association: The event took place 16th to 18th November 2017 in Chicago. It was attended by Mary Mutinda.

Publications

Researchers based at SIMS published the following papers in 2017:

- Ismail S., Luboobi S. and Nkansah Y., 2017, "Mathematical Model for the Acute Hepatitis C Infection subject to Immune System Response and Therapy," *Asian Journal of Mathematics and Applications*.
- Kahuru J., Luboobi S. and Nkansah Y., 2017, "Modelling the Dynamics Of Tungiasis Transmission In Zoonotic Areas," *J. Math. Comput. Sci.*
- Kahuru J., Luboobi S. and Nkansah Y., 2017, "Optimal Control Techniques on a Mathematical Model for the Dynamics of Tungiasis in a Community," *International Journal of Mathematics and Mathematical Sciences*.
- Kiprono N., Onyango C. and Odhiambo J., 2017, "Estimating a Finite Population Mean under Random Non-Response in Two Stage Cluster Sampling with Replacement," *Open Journal of Statistics* 7.05 (2017): 834.
- Kiprono N., Onyango C. and Odhiambo J., 2017, "Estimating a Finite Population Mean under Random Non-Response in Two Stage

- Cluster Sampling with Replacement," Open Journal of Statistics, Under Review.
- Kiprono N., Onyango C. and Odhiambo J., 2017, "Model-Assisted Estimation of Finite Population Mean in Two-stage Cluster Sampling," Pakistan Journal of Statistics and Operation, Under Review.
 - Mbogo R. and Nyabadza F., "On the future of HIV-related cancers: Insights from a mathematical model," Bulletin of Mathematical Biology, Under Review.
 - Mbogo R., Luboobi S. and Odhiambo J., 2017, "A Stochastic Model for Malaria Transmission Dynamics," Hindawi Publishing Corporation- Journal of Applied Mathematics, Vol. 2018,
 - Mbogo R., Luboobi S. and Odhiambo J., 2017, "Semi-Markov model for evaluating the HIV patient treatment cost," Hindawi Publishing Corporation, Journal of Applied Mathematics, In Press.
 - Mohamed A., Luboobi S. and Nkansah Y., 2017, "The in-Human Host and in-Mosquito Dynamics of Malaria Parasites with Immune Responses," New Trends in Mathematical Sciences.
 - Munabi G., Luboga S., Byamugisha J., Luboobi S., and Mirembe F., 2017, "Influence of maternal pelvis height and other anthropometric measurements on the duration of normal childbirth in Ugandan mothers," Anatomy Journal of Africa.
 - Ngina P., Mbogo R. and Luboobi S., 2017, "Mathematical Modelling of In-Vivo Dynamics of HIV in respect of Kenya's 'Anza Sasa' Campaign," Bulletin of Mathematical Biology, Under Review.
 - Ngina P., Mbogo R. and Luboobi S., 2017, "Mathematical Modelling of In-Vivo Dynamics of HIV subject to the Influence of the CD8+T-Cells," Science research publishing Applied Mathematics, Vol. 8, pp 1153-1179.
 - Ngina P., Mbogo R. and Luboobi S., 2017, "The In Vivo Dynamics of HIV Infection with the Influence of Cytotoxic T Lymphocyte Cells," International Scholarly Research Notices.
 - Ngina P., Mbogo R. and Luboobi S., 2017, "Modelling Optimal control of in-host HIV Dynamics using different control strategies," Computational and Mathematical Methods in Medicine, Hindawi Publishing Corporation, In Press.
 - Ngina P., Mbogo R. and Luboobi S., 2017, "The in-vivo dynamics of HIV-infection with the influence of cytotoxic T lymphocyte (CTL) cells," International Scholarly Research Notices - Hindawi Publishing Corporation, Volume 2017 (2017), Article ID 2124789, pp 10.
 - Odhiambo C., 2017, "A Smooth Test of Goodness-of-Fit for the Baseline Hazard Function for Time-to-First Occurrence in Recurrent

Events," An Application to HIV Retention Data. International Journal of Statistics in Medical Research, <https://doi.org/10.6000/1929-6029.2017.06.03.2>.

- Odhiambo C., 2017, "A Smooth Test of Goodness-of-Fit for the Weibull Distribution," An Application to an HIV Retention Data. International Journal of Statistics in Medical Research, <https://doi.org/10.6000/1929-6029.2017.06.02.2>.
- Odhiambo C., 2017, "Validation of the Smooth Test of Goodness-of-Fit for," Proportional Hazards in Cancer Survival Studies. International Journal of Statistics in Medical Research, <https://doi.org/10.6000/1929-6029.2017.06.02.1>.
- Omondi E., Mbogo R. and Luboobi S., 2017, "Modelling the trend of HIV transmission, spread and treatment within different age groups in Kenya," Journal of Applied Mathematics, Under Review.
- Omondi E., Nyabadza F, Bonyah E and Badu K., 2017, "Modelling the infection dynamics of onchocerciasis and its treatment," Journal of Biological Systems, Vol. 25, Issue 2, pp 247–277.
- Omondi E., Orwa T. and F. Nyabadza., 2017, "Application of optimal control to the onchocerciasis transmission model with treatment," Journal of Mathematical Biosciences, Under Review.
- Omondi E., Orwa T. and F. Nyabadza., 2017, "Modeling the infection dynamics of onchocerciasis and its treatment," Journal of Biological Systems, Under Review.
- Onyango C., 2017, "Model-Assisted Estimation of Finite Population Mean in Two-stage Cluster Sampling," Pakistan Journal of Statistics and Operation, Pak.j.stat.oper.res, Vol. 8, Issue 1, pp 127-139.
- Orwa T., Mbogo R. and Luboobi S., 2017, "Mathematical model for Hepatocytic-Erythrocytic Dynamics of Malaria," International Journal of Mathematics and Mathematical Sciences, In Press.
- Orwa T., Omondi E. and Nyabadza F., 2017, "Application of optimal control to the onchocerciasis transmission model with treatment," Journal of Mathematical Biosciences, ID: MBS-8002.
- Otieno E., Orwa T., and Nyabadza F., 2017, "Application of optimal control to the onchocerciasis transmission model with treatment," Journal of Mathematical Biosciences.
- Rigobert C., Luboobi S. and Nkansah Y., 2017, "The Effect of Seasonal Weather Variation on the Dynamics of the Plague Disease," International Journal of Mathematics and Mathematical Sciences.
- Selemami M., Luboobi S. and Nkansah Y., 2017, "Modelling of the In-Human Host and in Mosquito Dynamics of Parasite," International Journal of Computational and Mathematical Sciences.



SCHOOL OF HUMANITIES AND SOCIAL SCIENCES

15

Research Events

The School of Humanities and Social Sciences (SHSS), previously the Institute for Humanities, Education, and Development Studies (IHEDS), was founded to support the overall mission and vision of Strathmore University. This mission is to offer all round quality education to all its students. The mission and vision of SHSS is to advance the general mission of the university. Prof Christine Gichure is the Dean of the School of Humanities and Social Sciences. The Research Director is Dr Magdalene Dimba.

Research Events Organised

The following event was organised and held by the school:

- Presentation of Paper by Visiting Lecturer: The event took place on 10th October 2017 and was organised by Dr Magdalene Dimba. The Visiting Lecturer Dr Abigail D. de Leon presented a paper entitled, "Intangible Asset Theory of Development (IATD): An inquiry into Social Capital and Human Development in Philippine Choirs."
- Staff Workshop: The event took place 8th March, 2017 and was organised by Dr Magdalene Dimba. It was meant to encourage the staff to undertake doctoral studies, publish and apply for grants in groups to increase their chances of winning grants.

Research Events Attended

The following events were attended by members of SIMS:

- Workshop on Teaching Professional Business Ethics: The event was organised by the Georgetown Institute for the Study of Markets and Ethics (GISME). It took place from 1st to 3rd June, 2017 and was attended by Dr John Branya and Dr Rose Catacutan.
- Grant proposal Writing Training: The event was organised by Strathmore University Research Office. It took place on 13th November, 2017 and was attended by Caroline Mbugua and Dr Magdalene Dimba.
- 19th Annual International Conference on Education: The event was organised by Athens Institute for Education & Research (ATINER). It took place from 15th to 18th May, 2017. Christopher Momanyi attended.
- Globalization, Technology in Business and Society: The event was organized by Global Business Schools Network & Open University Business School Forum. Ian Wairua attended it.
- Strathmore University Research Symposium: The event was organised by Strathmore University Research Office. The event took place from 14th to 17th November, 2017. Wokorach Raphael, Esther Kariuki, Raymond Mutura, Simon Tukahriwa, Sandra Mututi, Dr John Branya, Caroline Njuguna, Christopher Momanyi, Caroline Maingi, Dr Magdalene Dimba and Kevin Muchemi attend the event.
- Partnership for Enhanced & Blended Learning (PEBL): The event was organised by the Association of Commonwealth Universities. It took place on 27th and 28th February, 2017 and was attended by Dr John Branya.
- Multiplier Training AFEL: The event was organised by Kenya Institute of Curriculum Development (KICD). It took place from 20th to 31st



A session at the Writing Centre, which is designed to help students and staff to develop impeccable writing and oral skills

March, 2017. Dr John Branya attended.

- Online Structured Training for African Researchers (STARS): The event was organised by the Association of Commonwealth Universities. It took place from 1st to 29th April, 2017 and was attended by Dr John Branya.
- National Dialogue of Distance Learning In Kenyan Universities: The event was organised by AFEL. It took place from 29th June to 30th June 2017. Dr John Branya attended.
- Training by the KTH University for Challenge-Driven Education: The event was organised by KTH University. It took place from 16th to 19th August, 2017 and was attended Dr John Branya.
- Significant Learning by Design-I Online Workshop: The event was organised by Optimize Learning and was attended by Dr John Branya.



GIZ - Strathmore University
Cooperation
Programme

RESEARCH CENTRES

Research centres are specialised vehicles of research within Strathmore University. They play an important role in promoting interdisciplinary research and broadening the University's research base. Most of the research centres within the University are based in the schools, and have been covered in the school reports. This section contains reports from independent research centres.



@iLabAfrica

10

Running Grants

16

Research Events

03

Publications

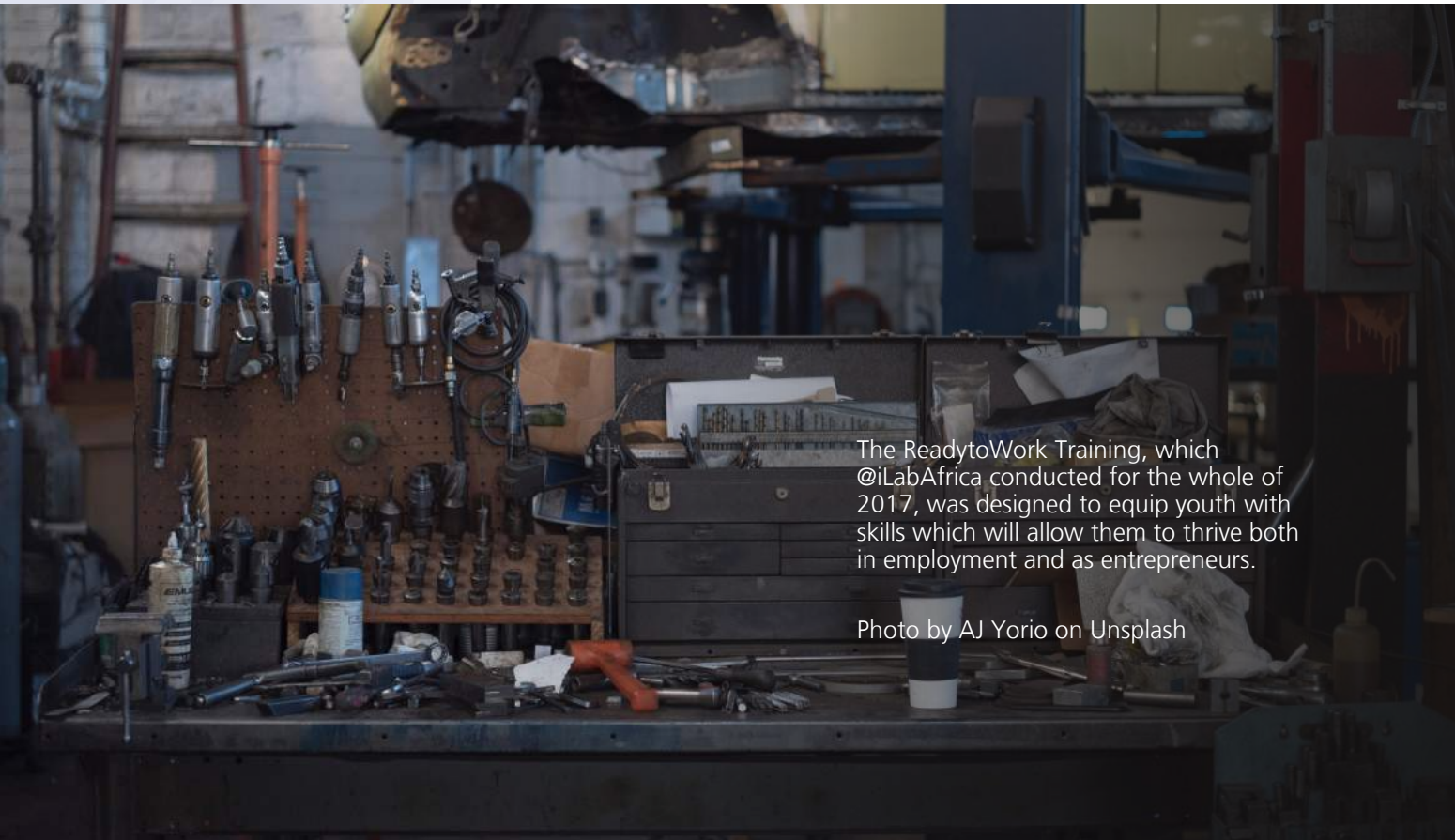
@iLabAfrica is a centre of excellence in ICT innovation and development. The centre is involved in interdisciplinary research, engagement with students, and collaboration with government, industry and other funding agencies. The Research Director of @iLabAfrica is Dr Joseph Sevilla.

Grants

The following grants were won or ran in @iLabAfrica in 2018:

- Refugee Employment – Enhancing Affordable Access to Education in Refugee Camps: This grant was awarded by UNHCR and was run by Regina Nkonge from 9th January 2017. The grant amounted to USD 43,773.
- Mobile Course on Plastic Bags: Application Development and Course Animation: This grant was awarded by UNEP and was run by Regina Nkonge from 20th November 2017. The grant amounted to USD 9,877.
- Capacity Building in Internet of Things for Underprivileged Societies in Kenya: This grant was awarded by Motorola and was run by Leonard Mabele from 10th March to 17th August 2017. The grant amounted to USD 15,000 and was meant to fund the training of 90 people on the concept of IoT. The group consisted of 50 students, 20 Faculty members and 20 high school teachers.
- H2020 TWIGA – Transforming Weather Water Data into Value-Added Information Services for Sustainable Growth in Africa: This grant was awarded by European Commission-H2020 and it will be run by Dr Joseph Sevilla and Emmanuel Kweyu from 2017 to 2020. The grant amounted to USD 170,000.
- IEEE SSIT/IST-Africa SIGHT- ICT Skills, Equipment for Mhealth4Afrika Project: The grant was awarded by IEEE/SSIT and was run by Dr Joseph Sevilla and Emmanuel Kweyu in 2016 and 2017. The grant amounted to USD 6,150.
- Managing the Kenya Rapid Testing Quality Assurance Program Data Processes through Innovative Electronic- Systems: This grant was awarded by CDC- Kenya and was run by Dr Joseph Sevilla and Emmanuel Kweyu from 2016 to 2018. The grant amounted to USD 28,000.
- E-Checklist- SLIPTA/SLAMTA Implementation in Kenya: The grant was awarded by CDC-Kenya and was run by Dr Joseph Sevilla and Emmanuel Kweyu from 2016 to 2018. The grant amounted to USD 25,000.
- HIV-QA-Managing the Quality of HIV Programme Implementation in Kenya: Awarded by CDC-Kenya, this grant was run by Dr Joseph Sevilla and Emmanuel Kweyu from 2016 to 2018. It amounted to USD 8,000.
- Scaling of the National Cancer Registry and Patient Tracking in Kenya: The grant was awarded by IBM Research and Kenyatta National Hospital and was run by Dr Peter Maturi and Emmanuel Kweyu from 2017 to 2020. It amounted to USD 20,000.

- WAZIHUB-Innovation in Action Research-Accelerating IoT and Big Data Innovation: The grant was awarded by European Commission-H2020 to Dr Joseph Sevilla and Emmanuel Kweyu. It started running in 2017 and will continue till 2020. It amounted to USD 75,000.



The ReadytoWork Training, which @iLabAfrica conducted for the whole of 2017, was designed to equip youth with skills which will allow them to thrive both in employment and as entrepreneurs.


Photo by AJ Yorio on Unsplash

Research Events Organised

The following events were organised and held by the research centre:

- ReadytoWork Training: This programme sought to answer the challenge of youth unemployment in developing economies. It was designed to equip youth with skills which will allow them to thrive both in employment and as entrepreneurs, allowing them to enter into gainful employment, either as entrepreneurs or employees. It took place from January to December 2017
- Internet Engineering Task Force (IETF) 99 Viewing Hub: This event took place from 16th to 21st July 2017. It was organised in collaboration with ISOC Africa Regional Bureau, which conceived the initiative to increase the participation of students and researchers from Africa in the IETF. The IETF is the home of internet standards.

- ReadytoWork Activations: This event took place on three different dates – 8th June 2017, 22nd June 2017 and 14th November 2017. It was meant to orient, train and register students of Kibondeni College, Zetech University, United States International University and Mount Kenya University to the ReadytoWork online platform.
- Motorola Ideation: Taking place on 22nd June 2017, this event provided a platform for students and professionals to pitch their IoT tech ideas to Motorola as teams. The teams were thereafter matched to Motorola Resellers.
- Saturday Digikids Boot Camp: This event took place in three phases, each lasting three months. The first phase started in January, the second on 20th May, and the third on 23rd September. It was aimed at equipping young children with skills for website development, robot programming and online security.
- Digikids Holiday Boot Camp: This event also took place in three phases. The first was a one-week session beginning on 24th April. The second phase started on 6th November and lasted two weeks. The third phase took one week and started on 11th December.
- Digital Marketing: Made up of two two-month sessions starting in March and November 2017, this event was born of a partnership with Google that offered certification using Google's digital advertising technology and tools.
- Advanced Analysis and Visualization in Excel: The event took place on 13th September. A second session took place for three days from 21st November and a third session took place for another three days from 28th November.
- Certified Mobile Technology: This programme took place for three months from 6th February. It was meant to equip form-four leavers with knowledge and skills in information technology before joining university.
- eSLIPTA Checklist Workshop: The event took place for one week. It was a training for auditors for SLAMTA (Strengthening Laboratory Management Toward Accreditation) on the E-SLIPTA Checklist Tool developed by @iLabAfrica.
- ERA Africa Stakeholders workshops: This event took place in three-week segments, in South Africa, Kenya and Belgium. It was a Stakeholders workshop on the ehealth Innovation Creation and Management Wheel.



Delegates at the Africa IoT Summit, which took place on 11th and 12th September. Organised by CIO East Africa, it was attended by Leonard Mabele.

Image Credit: CIO East Africa

Research Events Attended

The following events were attended by members of @iLabAfrica:

- 7th International Mobiles for Education Alliance Symposium: The event was organised by USAID and took place from 2nd October to 10th October 2017 in Washington DC. It was attended by Regina Nkonge.
- FIT/SIMS Mini Career Fair: This event was organised by Career Development Services (CDS) department and took place on 13th October 2017. The event was attended by Kenedy Munene and Phalex Shikanga.
- Africa IoT Summit: The event was organised by CIO East Africa and took place on 11th and 12th September. It was attended by Leonard Mabele.
- Cisco Connect: The event was organised by Cisco. It took place from 9th to 11th April. It was attended by Leonard Mabele and Fatma Balala.
- Africa4Future: Organised by Novato Africa, this event took place on 27th September 2017. It was attended by Leonard Mabele and Fatma Balala.

Publications

- Cunningham, P., Cunningham, M., van Greunen, D., Veldsman, A., Kanjo, C., Kweyu, E. and Gebeyehu, A, 2017, "Implications of Baseline Study Findings from Rural and Deep Rural Clinics in Ethiopia, Kenya, Malawi and South Africa for the co-design of mHealth4Afrika," Proceedings of IEEE Global Humanitarian Technology Conference (GHTC) 2016, IEEE Xplore, ISBN: 978-1-5090-2432-2, DOI: 10.1109/GHTC.2016.7857350
- Cunningham, P., Cunningham, M., van Greunen, D., Veldsman, A., Kanjo, C., Kweyu, E. and Gebeyehu, A, 2017, "mHealth4Afrika Alpha Validation in Rural and Deep Rural Clinics in Ethiopia, Kenya, Malawi and South Africa," 2017 IEEE Global Humanitarian Technology Conference (GHTC), DOI: 10.1109/GHTC.2017.8239347
- Junghae M., Kitsao E., Kweyu E., Bundi G. and Kitheka F., 2017, "Managing the Kenya Rapid Testing Quality Assurance Program Data Processes, ehealth, mHealth, Health Informatics Research."





STRATHMORE ENERGY RESEARCH CENTRE

01

Running Grant

05

Research Events

The Strathmore University Energy Research Centre (SERC) was set up in 2012 to carry out high-quality research, technical training and consultancy services in the energy sector in Kenya. It offers services to the government, private sector and the general public. The Research Director of SERC is Geoffrey Ronoh.

Grants

SERC won the following grant in 2017:

- Newton Grant: The grant was awarded by British Council to Prof Izael Da Silva and started running on 13th June 2017. The grant amount was USD 137,910. It was meant to increase access to fresh water for irrigation and to increase agricultural productivity through improved irrigation methods.

Research Events Organised

The following events were organised and held by SERC:

- Energy Debate: The event took place on 13th June 2017. It was a discussion on reliability, quality and affordability of the current electricity supply.
- Symposium on climate change and drought resilience in Africa: The event took place between 7th and 9th November 2017. It was a discussion on drought resilience strategies in Africa.



Participants at a T3 certification training for women at Strathmore Energy Research Centre.

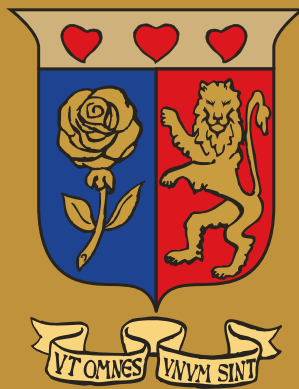
Research Events Attended

The following events were attended by members of SERC:

- KEBS Workshop on Offgrid System Standards: The event was organised by Kenya Bureau of Standards. It took place on 5th April 2017 and was attended by Anne Wacera Wambugu and Sheilla Olga.
- LVDC Conference: The event took place on 22nd and 23rd May. It was organised by Kenya Bureau of Standards and was attended by Anne Wacera Wambugu and Thomas Bundi.
- AFSEC TC82: The event was organised by African Standardization Electrotechnical Commission and AFSEC. It took place from 24th to 26th May.2017 and was attended by Anne Wacera Wambugu. A second session of the event, also attended by Anne Wacera Wambugu, took place from 8th to 10th November.







Strathmore

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