

CURRICULUM VITAE OF SAMUEL BAKER KUCEL

[1] PERSONAL DATA

Contact: **Samuel Baker Kucel (PhD),
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Research)**
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[2] BRIEF PROFILE

Samuel Baker Kucel holds a PhD in Mechanical Engineering (Energetics) from the University of Udine (2002, Italy), a Masters of Engineering Science degree in Mechanical Engineering from the University of New South Wales (1998, Sydney, Australia) and a Bachelors degree (1st Class Honours) in Mechanical Engineering from Makerere University (1995, Kampala, Uganda). He did additional tailor made training in Energy Management and Conservation from the Energy Resources Institute – TERI (2004, Bangalore, India), Agricultural Products Processing Technologies from Hainan University (2010, Haikou, China), University Management and Leadership from the University of Cape Coast (Cape Coast, Ghana, 2014), Leadership and Management Skills Course for Academic Leaders (Lilongwe, Malawi, 2017), Leadership and Change Management (ESAMI, Kampala, Uganda, 2018) and did various short courses, viz., Cadre Development, Project Management, Research Management and Administration, PhD Supervision, CDM Consultancy, Project Self Evaluation, E-Learning (Blackboard and KEWL.NextGen), Innovation Systems and Innovative Clusters Facilitation, Financial Management and Accountability, Entrepreneurship Thinking and Development, Procurement Planning, Value Chain Analysis, Building and Implementing Balance Score Card, Academic Programme Development, Proposal Development, Staff Performance Appraisal, Teamwork, Effective Communications, Management of Meetings, and Leadership and Management of Higher Education Institutions.

Samuel Baker Kucel has strong Industrial and Consulting experience, especially in the areas of Mechanical Systems Conceptualization, Design, Manufacture, Operation and Maintenance. He has also been involved in various Renewable Energy and Energy Efficiency Projects, Environmental and Social Impact Assessments, ICT Implementation Projects and Clean Development Mechanism (CDM) consultancies and assignments in Uganda. He reviewed the Energy Advisory Project Phase II, supported by

the German Government and Implemented by the Ministry of Energy and Mineral Development of Uganda and the German Technical Co-operation. He participated in complete energy audits of Devon Tea Estate (India), Southern Range Nyanza Limited (Uganda) and Nile Breweries (Uganda). He was involved in the review of country-wide activities in all sectors of the Ugandan Economy and identification of the activities whose implementation has impact on climate change leading to climate vulnerability. He was part of the Team that carried out the Environmental Impact Assessment of the Kalangala Infrastructure Project on behalf of InfraCo, New York, USA ("the developer"). He participated in the identification of alternative fuel options for clay baking manufacturing of building products at Uganda Clays Limited. He took part in the review of improved kiln technologies and other alternative efficient charcoal production systems in Uganda. He was involved in socio-economic and energy access baseline studies in Uganda. He was part of the Team that drafted the EAC Renewable Energy and Energy Efficiency Regional Status Report 2017 for REN21, Paris, France.

Samuel Baker Kucel has vast experience in University Lecturing/Teaching (at both Graduate and Undergraduate levels), Research, Administration, Academic Supervision/Mentorship, Outreach, External Examination, Peer Review and in Writing/Formulating new Academic Programmes, agendas, strategies, guidelines, regulations, and policies. He lectured at the Department of Mechanical Engineering, College of Engineering, Art Design and Technology, Makerere University for over 19 years (rising from the rank of Assistant Lecturer to Senior Lecturer), where he taught various Mechanical Engineering and Energy Engineering courses. Within that time, he supervised over 30 Masters and 4 PhD students of both Mechanical Engineering and Renewable Energy Engineering. He was also a Visiting Lecturer with the Department of Energy Technology, The Royal Institute of Technology (KTH), Stockholm, Sweden.

Samuel Baker Kucel served as a Senior Lecturer with the Department of Agricultural Mechanization and Irrigation Engineering, Faculty of Engineering, Busitema University from October 2007 to July 2013. He was a Care-Taker Head of Department for Computer Engineering Department and for Textile and Ginning Engineering Department. He was also the pioneer Dean of the Faculty of Engineering, Busitema University, where he served from August 2007 to July 2013. He is currently (First appointed in August 2013 for a five-year term and contract was renewed in August 2018 for another five years) the First Deputy Vice Chancellor (Academic Affairs and Research) of Busitema University and an Associate Professor of Energetics.

He was the Representative of Public Universities in the Uganda Business and Technical Examinations Board (UBTEB) from July 2013 to September 2019. He is also a member of the fourth Council of Uganda National Council for Science and Technology (UNCST) since November 2015. He is also currently the representative (since August 2020) of Scientists in Uganda in the Governing Board of the East African Science and Technology Commission (EASTECO).

[3] KEY EXPERTISE

Mechanical and Energy Engineer:

- University Lecturing/Teaching: Imparting Knowledge and Teach Skills.
- Research Management and Administration.
- Mentorship and PhD Supervision.
- Outreach Activities: University-Industry Collaboration. University-Community Engagement.
- Writing/Formulating New Training Programmes.
- Writing/Formulating Agendae, Guidelines, Plans, Strategies, Policies and Regulations.
- Energy Management and Conservation.
- Energy Efficiency.
- Fluids Systems Design.
- Thermal Systems Design.
- Planning and Development of Power Projects.
- Renewable Energy Feasibility Studies and Systems Design.
- Air-conditioning Systems Design.
- Refrigeration Systems Design.
- Two-phase Flow and Heat Transfer.
- Acoustic Systems Design and Control.
- Project Planning and Management.
- Clean Development Mechanism.
- Environmental and Social Impact Assessment.
- ICT Implementation.
- Innovation Systems and Innovative Clusters Facilitation.
- University Staff Management and Development.
- Budgeting and Accountability.
- Diplomacy and Political Awareness.

[4] EDUCATIONAL QUALIFICATIONS ATTAINED

[3.1] Degree Training

Year	Institution	Award
2002	University of Trento/Udine, Trento/Udine, Italy	PhD in Energetics
1998	University of New South Wales, Sydney, Australia	Masters of Engineering Science Degree in Mechanical Engineering
1995	Makerere University, Kampala, Uganda	Bachelor of Science in Engineering (1 st Class Honours)

[4.2] Short Courses/Training

Year	Name of Course	Trainer/Institution	Award
2018	Leadership and Change Management	Supported by AfDB HEST V Project and Conducted by ESAMI in Kampala, Uganda	Certificate
2017	Leadership and Management Skills Course for Academic Leaders, 29 th October to 1 st November 2017	Organised and Supported by RUFORUM and Bill & Melinda Gates Foundation; Designed and Conducted by hfp Consulting (based in Heidelberg, Germany) in Lilongwe, Malawi	Certificate
2017	Online Course Development for Open and Distance Learning	SchoolNet South Africa at Busitema University	Certificate
2017	Mentorship and Graduate Students Supervision	Busitema University	
2016	Proposal Development and Scholarly Writing	Busitema University	
2014	University Management and Leadership	The University of Cape Coast (Cape Coast, Ghana)	Certificate
2013	Leadership and Management Training (Part III)	Uganda National Council for Higher Education	Certificate

2013	Jinja Nile Resort Hotel: Induction Training of UBTEB Board Members	Institute of Corporate Governance of Uganda	Certificate
2012	Teamwork as a Pathway to Busitema University Efficiency and Effectiveness	Institute of Corporate Governance of Uganda	Certificate
2012	Leadership and Management Training (Part II)	Uganda National Council for Higher Education	
2012	Busitema University: Induction Training of Council Members	Business Synergies	
2012	Effective Communication, Management of Meetings and Minutes Writing	Busitema University and Makerere University	Certificate
2012	Academic Programme Development and Review	Uganda National Council for Higher Education	
2012	Hands-on Support to the Procurement Function	Public Procurement and Disposal of Public Assets Authority (PPDA)	
2011	Building and Implementing Balance Score Card	JAVA Consulting	Certificate
2011	Leadership and Management Training (Part I)	Uganda National Council for Higher Education	
2010	Agricultural Products Processing Technologies	The Ministry of Commerce of The People's Republic of China and Hainan University, Hainan, China	Certificate
2010	Staff Performance Appraisal	Busitema University	
2009	Entrepreneurship Thinking and Development	The British Council Uganda, Kampala	
2008	Value Chains and Technology Development	African Centre for Technology Studies, Nairobi, Kenya	Certificate
2008	Procurement (Process, Budgeting and Planning)	Busitema University	Certificate
2008	Financial Management and Accountability	School of Graduate Studies, Makerere University	Certificate

2008	Proposal Development	Uganda National Council for Science and Technology	
2007	Modern University and Research Management	Faculty of Computing and Information Technology, Makerere University	
2007	Innovative Systems and Innovative Clusters Facilitators Training	Faculty of Technology, Makerere University	Certificate
2006	PhD Supervision Training	School of Graduate Studies, Makerere University	Certificate
October 2005	PhD Supervision Training (Phase II)	Blekinge Institute of Technology and Faculty of Technology, Makerere University; Buziga Country Resort, Kampala Uganda	Certificate
2005	Training on E-learning and use of KEWL.NextGen (Knowledge Environment for Web-based Learning, The Next Generation)	University Library, Makerere University	Certificate
March 2005	PhD Supervision Training (Phase I)	Blekinge Institute of Technology and Faculty of Technology, Makerere University; Buziga Country Resort, Kampala Uganda	Certificate
2005	Project Planning and Management	Small Business Development Centre, Makerere University Business School	Certificate
2005	Research Management and Administration	School of Graduate Studies, Makerere University	Certificate
2004	Project Self-Assessment Training (Budgeting, Programme Self	School of Graduate Studies, Makerere	Certificate

	Evaluation and Financial Management)	University	
2004	CDM Consultant Training	Faculty of Technology, Makerere University	Certificate
2004	Energy Audit and Energy Management Training	Tata Energy Research Institute, Bangalore, India	Certificate
2004	Training on UNIGRAPHICS Software	Faculty of Technology, Makerere University	
2003	Training on Solid Edge Software	Faculty of Technology, Makerere University	
2002	Training on E-learning and use of Blackboard Software	School of Education, Makerere University	Certificate
Jan-Feb 1997	Academic Preparation Program	The University of New South Wales, Sydney, Australia	Certificate
1991	Basic Cadre Development Course	National School of Politicization (now-National Leadership Institute), Kyankwanzi	Certificate

[4.3] Qualities/Attributes Developed

- Having a sound technical and practical knowledge, and an understanding of Mechanical and Energy Engineering: planning, design, implementation and analysis of systems.
- Able to work with teams: capable of managing and leading a successful research team, and also working as a team member.
- Able to write, communicate and present ideas very well.
- Very fluent in the English Language, both written and oral. Fair in speaking and writing the Italian Language.
- Having well-developed and good interpersonal skills with vast experience in networking and dealing with partners.
- Capable of working in a multi-cultural environment and establishing harmonious working relationships.
- Able to work in a performance driven environment, including handling multiple tasks: capable of working under pressure to strict deadlines, without close supervision and able to solve problems rapidly.
- Capable of organizing and managing staff. Also able to set performance targets, assign work and review performance.

- Able to impart knowledge and teach: willing and capable of technically training and facilitating others.
- Having excellent knowledge in working with computers and able to use standard computer programmes and systems, e.g., Microsoft Word, Latex, Microsoft Excel, Microsoft PowerPoint, Microsoft Access, Solid Edge Design Software, Windows, UNIX, etc.
- Capable of handling highly sensitive and confidential Information.
- Having a sound understanding and practical knowledge of Higher Education in Uganda and in the East African region.
- Capable of conceptualizing, identifying, formulating/developing, planning, managing, coordinating, implementing, monitoring and evaluating teaching/ academic programmes.
- Capable of developing/formulating project proposals, agenda, guidelines, policies, plans and strategies.
- Able to manage, develop and mentor teaching staff.
- Having a strong conceptual and analytical experience: capable of thinking critically, creatively and strategically, and able to rapidly analyze information and make good judgment and recommendations.
- Able to drive (with a valid license), and available and willing to travel on official duties.
- Flexible and capable to adapt to new situations.
- Capable of following instructions and procedures but able to work independently, seeking guidance on complex assignments only.
- Having motivation for international cooperation and development, with experience in managing and implementing development partner funded projects.

[4.4] Professional Awards

Awarded, "**The Best Final Year Mechanical Engineering Student 1994/1995**," under the Annual Institution's Award of **The Uganda Institution of Professional Engineers (UIPE)**, during Council Year 1995-1996.

Awarded, "**The Pearl of Africa Lifetime Achievement Award (PALITA AWARDS) 2013**" for contribution towards the socio-economic transformation of Uganda and attainment of the United Nations Millennium Development Goals (MDGs) in Uganda.

Awarded, "**Kyambogo College School (KYACOSA) Order of MERITUS AWARDS 2016**," in recognition for exceptional service in the profession of Academia and Research.

[4.5] Professional Affiliation

July 2012-Date: Member, **Institute of Corporate Governance of Uganda (ICGU)**.

1997-1998: Student member of the **American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE)**.

[5] EMPLOYMENT RECORD

Period	Position	Duties
<p>August 2013 - Date (Contract was renewed for one more five-year term with effect from 14th August 2018)</p>	<p>First Deputy Vice Chancellor, Busitema University, Uganda</p>	<p>In charge of the Academic Affairs and Research of a multi-campus model University with six (6) operating campuses. Involved in:</p> <ul style="list-style-type: none"> a) Initiation of the identification and development of academic plans, priorities and programmes for Busitema University and submit them to the Vice Chancellor for presentation to the University Council for approval. b) Establishment and maintenance of working and collaboration linkages with management of academic programmes in national, regional and international universities to advance Busitema University's academic strategic goals and objectives, budgets and work plans for the academic faculties/ different campuses to the relevant authorities. c) Coordination of all academic research programmes and activities of the University including training of staff in grants proposal writing, sourcing of research grants, publication of sources of research funds and research findings. d) Facilitation of the implementation of Government, and Busitema University Council and Senate policies, plans, programmes and other resolutions aimed at improved academic performance of the University. e) Supervision and evaluation of the performance of the Directorate of Graduate Studies, Research and Innovations and of Academic Faculties. f) Managing the financial resources of the Office of the First Deputy Vice Chancellor g) Performance of the functions of the Vice Chancellor in the absence of the Vice Chancellor

		h) Performance of such other functions that are delegated by the Vice Chancellor or assigned by the University Council
January 2017 - Date	Associate Professor of Energetics, Department of Agricultural Mechanization and Irrigation Engineering, Faculty of Engineering, Busitema University	Drafting and reviewing of graduate academic programmes Supervision of graduate students' dissertations and theses (Masters and PhD) Examination of PhD concepts and Master proposals Examination of Master dissertations Mentoring and coaching staff and students Leading research and project teams Leading consultancy teams to Government, Private Sector, and to Private Individuals
August 2007- 2013	Dean, Faculty of Engineering, Busitema University, Uganda. [on Secondment from Makerere University]	Overseeing, Planning, Developing, Formulating and Coordinating all Faculty of Engineering Operations and Activities, including teaching, research and outreach. Setting up, Managing and Leading the Faculty of Engineering. Responsible for the smooth running of the Faculty of Engineering. Managing the financial resources of the Faculty of Engineering Identifying and developing new academic programmes. Reviewing and enriching existing academic programmes. Providing Support to University Top Management in Programme Development, Resource Mobilization, Budgeting, Implementation Strategies, Leadership and Overall Development of Busitema University. Representation of the Vice-Chancellor at Fora, Particularly on Academic Related Fora. Monitoring and Evaluating all Faculty of Engineering Activities. From time to time Acting as Vice Chancellor.
May 2009 to 2014	Senior Lecturer, Department of	Supervision of student's projects and theses (Bachelors, Masters and PhD). Teaching Masters students (both MSc and MEng)

	Mechanical Engineering, Makerere University	Renewable Energy Technology, Heat Transfer and Thermal Insulation of Buildings, and Refrigeration and Air Conditioning. Teaching Master of Renewable Energy Students Hydropower Engineering. Teaching Bachelor of Engineering Students Renewable Energy Systems, Refrigeration and Air Conditioning and Fluid Mechanics (Dynamics).
2006	Visiting Lecturer, Department of Energy Technology, The Royal Institute of Technology, Stockholm, Sweden	Reviewed, assessed and gave feedback on 28 Masters Students' project reports under the <i>Energy and Environment Course</i> . Attended and reviewed Masters Thesis presentations. Participated in the field trip to Lappland within the <i>Energy and Environment Course</i> . Reviewed several students' presentations on status of hydropower in their home countries.
2005	Part-Time Lecturer, Department of Technological Education, Faculty of Science Education, Gulu University, Uganda	Teaching undergraduate students Water Turbines and Air Conditioning and Refrigeration.
2004	Innovations Engineer, Uganda Gatsby Trust	Proposing projects for final year Engineering students at the Faculty of Technology, Makerere University. Selection of final year Engineering students' projects for Gatsby sponsorship. Assisting small scale enterprises with technical advice. Promoting technology transfer from University to small scale enterprises.
2003 - 2009	Lecturer, Department of Mechanical Engineering, Makerere	Supervision of student's projects and theses (Bachelors, Masters and PhD). Teaching Masters students (both MSc and MEng) Renewable Energy Technology and Refrigeration and Air Conditioning.

	University	Teaching Master of Renewable Energy Students Hydropower Engineering. Teaching Bachelor of Engineering Students Renewable Energy Systems, Refrigeration and Air Conditioning and Fluid Mechanics (Dynamics).
2003	Part-Time Lecturer, Graduate School, Bugema University, Kampala Campus, Uganda	Teaching Masters students Research Methods (Statistics Applied to Research).
1995 - 2002	Assistant Lecturer, Department of Mechanical Engineering, Makerere University	Teaching Mechanical Engineering Students Heat Transfer, Applied Fluid Mechanics, Plant Engineering, Engineering Management (Industrial Organisation), Engineering Drawing and Theory of Machines
1995	Mechanical Engineer, Interfreight Panalpina, Kampala	Servicing, maintenance and repair of heavy trucks. Supervision of mechanics.
1994	Trainee Engineer, Interfreight Panalpina, Kampala	Servicing, maintenance and repair of heavy trucks.
1993	Trainee Engineer, British American Tobacco Uganda, Kampala	Supervision of plant contractors. Servicing, maintenance and repair of tobacco processing plant machines.
1989	Fitter Mechanic, Steel Masters Limited, Kampala	Installing metallic burglar proofing and roofing buildings using steel trusses and purling.

[6] ENGINEERING CLIENTS ADVISOR DUTIES

Year	Role	Client	Duties
2022	Consulting Team Member/ Lead Consultant, CIRCODU	SNV Uganda	Baseline and Market Assessment on Energy Efficiency Interventions in Agriculture and Built Environment in Uganda
September 2022	Evaluator/Reviewer	South African Research Foundation (NRF)/Research and Innovation Support and Advancement (RISA)	Evaluating/reviewing the quality, impact and standing of the research portfolio of a researcher in the last eight (8) years. Also, commenting on the researcher's future planning of his/her research
May 2022	Evaluator/Reviewer	National Research and Innovations Program (NRIP), Ministry of Science, Technology and Innovations	Evaluating and assessing proposals submitted for grant funding
2022	External Examiner/Evaluator	The Gandhigram Rural Institute, Deemed University, Gandhigram 624 302, Dindigul District, Tamil Nadu, India	Reviewing and assessing a PhD Thesis.
2021-2022	Reviewer	Research and Innovations Fund (RIF), Makerere University	Evaluating and assessing proposals submitted for funding
2019 - 2022	External Examiner	Kyambogo University, Department of Mechanical and Production Engineering	Reviewing and evaluating examination question papers, examination scripts and academic programmes.

2019-2022	External Examiner	Makerere University	Reviewing and examining PhD Theses and Master Dissertations.
September 2019	Evaluator/Reviewer	South African Research Foundation (NRF)/Research and Innovation Support and Advancement (RISA)	Evaluating/reviewing the quality, impact and standing of the research portfolio of a researcher in the last eight (8) years. Also, commenting on the researcher's future planning of his/her research
2019	External Examiner	Cape Peninsula University of Technology, Bellville, South Africa	Reviewing and examining a Master Thesis.
2018	Consulting Team Member/ Lead Consultant, CIRCODU	KIIMA FOODS, Kasese	Supporting 20 district Local Governments in the Albertine Graben on the District Level Energy Planning
2018	Consulting Team Member/ Lead Consultant, CIRCODU	Habitat for Humanity Uganda (HFHU)	Willingness to pay survey for a solar mini-grid project in Kiboko District.
Dec 2017 – July 2018	Reviewer	The 11 th South African Conference on Computational and Applied Mechanics (SACAM 2018), 17 th to 19 th September 2018, Vanderbijl Park, South Africa	Reviewing conference submissions (Abstracts, the full papers and final submissions) for scientific contribution, quality, significance, originality, innovativeness and relevance
2017, 2019 and 2020	External Examiner/Evaluator	Vaal University of Technology, Vanderbijl Park, South Africa	Reviewing and assessing a PhD Thesis and Master Dissertations.
2016	Expert Team Member	Busitema University	Drafting of Bachelor of Science in Marine

			Engineering, Bachelor of Science in Marine Science and Post Graduate Diploma in Marine Engineering programmes for Busitema University.
2016	Consulting Team Member, CIRCODU	WWF Uganda Country Office	A socio-economic study and energy access baseline study for target districts of Arua and Masindi
2015	Consulting Team Member/ Lead Consultant, CIRCODU	REN21, Paris, France	Development of the EAC Renewable Energy and Energy Efficiency Regional Status Report showcasing policy patterns, investment opportunities and major data gaps
2014	Consulting Team Member/ Lead Consultant, CIRCODU	Sawlog Production Grant Scheme (SPGS)	A review of the existing improved kiln technologies and other alternative efficient charcoal production systems in Uganda
2013	Consulting Team Member/ Lead Consultant, CIRCODU	WWF Eastern and Southern Africa Regional Programme Office	An energy access baseline study for Kasese District, Uganda
2012	External Examiner/Evaluator	The Gandhigram Rural Institute, Deemed University, Gandhigram 624 302, Dindigul District, Tamil Nadu, India	Reviewing and assessing a PhD Thesis.
2012 - 2014	External Examiner	Kyambogo University, Department of Mechanical and	Reviewing and evaluating examination question papers, examination scripts and

		Production Engineering	academic programmes.
2012	Chief Panelist	Mbarara University of Science and Technology, Faculty of Science	Examining Viva Voce presentations of Master students.
2012	External Examiner	Mbarara University of Science and Technology, Faculty of Science	Reviewing and examining Master Dissertations.
2011	External Examiner	Makerere University	Reviewing and examining Master Dissertations.
2010	Expert Team Member	Busitema University	Drafting programme for Bachelor of Science in Mining Engineering for Busitema University.
2009	Expert Team Member	Busitema University	Reviewing and enriching the Bachelor of Science in Textile Engineering programme for Busitema University.
2009	Expert Team Member	Busitema University	Drafting a proposal titled, "Water for Enhanced Agricultural Production" for Busitema University.
2008	Expert Team Member	Busitema University	Drafting programme for Bachelor of Science in Water Resources Engineering for Busitema University.
2008	Expert Team Member	Busitema University	Drafting programme for Bachelor of Science in Agro-Processing Engineering for Busitema University.
2007	Associate Consultant, Associated Procurement	Public Procurement and Disposal of Public Assets	Collection of Data and Review of the Compliance and Performance Indicators

	Consultants (ASSPRO)	Authority, Republic of Uganda	for Procurement Practices in Uganda.
2007	Consultant	Mayor of Mbarara District (on be-half of Egyptian Investors)	Design of a cold room for storing cheese products.
2006	Consultant	Busitema University	Drafting programmes for Bachelor of Science in Textile Engineering and Diploma in Ginning Engineering for Busitema University.
2006 - 2007	Associate Consultant, Air Water Earth Limited	InfraCo, New York, USA ("developer")	Environmental Impact Assessment of the Kalangala Infrastructure Project. Predicting and analyzing potential social-environmental impacts associated with developing new or rehabilitating existing infrastructure on Kalangala Island so as to satisfy existing and future anticipated demand from the BIDCO project related operations, tourist activities, households' needs and other economic activities.
2005 - 2006	Consulting Team Member, Technology Consults Ltd	Ministry of Water, Lands and Environment	Technology Needs Assessment: Review of country – wide activities in all sectors in the economy and identification of those activities whose implementation has impact on climate change leading to

2004	Consultant	German Technical Co-operation (GTZ)/ Ministry of Energy and Mineral Development (MEMD)	climate vulnerability. Review of the Energy Advisory Project Phase II, supported by the German Government and Implemented by the Ministry of Energy and Mineral Development of Uganda and the German Technical Co-operation. Planning Phase II of the Energy Advisory Project to the MEMD. Finalizing the National Energy Efficiency Strategy of the Republic of Uganda
2004	Energy Audit Team Member	Devon Tea Estate, Koppa, India	Carrying out a complete energy audit of Devon Tea Estate. Writing and presenting the Energy Audit Report.
2004	Study Tour Team Member	I@Mak.Com, Makerere University	Study tour of centers of excellences in the United States and United Kingdom to learn best practices which will be used in the development of research and policy capacities in Makerere University. Visited Colorado State University (USA), South Dakota School of Mines and Technology (USA), Southern Illinois University (USA), University of Portsmouth (UK), University of Surrey (UK) and Imperial College London (UK).
2003	Energy Audit Team Member	Southern Range Nyanza Ltd and	Carrying out a complete energy audit of Southern

		Nile Breweries Ltd	Range Nyanza Ltd and of Nile Breweries Ltd. Writing and presenting the Energy Audit Report.
2002	Consulting Team Member	SWIPCO Uganda, Kampala	Evaluation of Tendering Process Report for the supply, installation and commissioning of hydroelectric power plant equipment for units 14 and 15 of Kiira dam.
2002	Contractor	Uganda Railways Co-operation, Kampala	Provision of technical services for the emergency repair of Fantuzzi Reach-stacker cranes.
1998	Consultant, Technology Consults Ltd	Makerere University	Designing Air Conditioning systems for buildings. Designing fire fighting systems for buildings.

[7] COMMUNITY/ LEADERSHIP RESPONSIBILITIES / OTHER DUTIES

Year	Position	Duties
2022 (January - April)	President, Local Organising Committee (LOC) of the First Edition of the Federation of Eastern Africa University Sports (FEAUS) Women Games and Gender Round Table	Overseeing the planning, organization and implementation of the FEAUS Women Games and Gender Round Table that took place at Busitema University from 15 th to 17 th April 2022
August 2020 - Date	Member of the Governing Board, East African Science and Technology Commission (EASTEKO)	Representative of Scientists in Uganda. The duties are as specified in EASTEKO Governance Board Manual of July 2017.
August 2020 -	Member of the Science,	Approving/Drafting Agendae, Strategies, Plans, Guidelines, Policies, and Regulations

Date	Technology Policies and Regulations Committee of the East African Science and Technology Commission (EASTECCO)	of EASTECCO.
2020 - Date	Chairperson, Steering Committee of the Busitema University Maritime Institute, Namasagali, Kamuli	Overseeing the planning and development of the Busitema University Maritime Institute, Namasagali, Kamuli.
July 2016 - September 2019	Member, Uganda Business and Technical Examinations Board (UBTEB), Third Board	Representative of Public Universities in Uganda. The duties are as specified in UBTEB Statutory Instrument No. 9 of 2009 and in the BTVET Act, 2008.
Nov 2015 - Date	Ex-Officio Member, Uganda National Council for Science and Technology (UNCST) 4 th Council	The duties are as specified in the Charter of the UNCST Governing Council and in the UNCST Act, June 1990.
July 2013 – June 2016	Member, Uganda Business and Technical Examinations Board (UBTEB), Second Board	Representative of Public Universities in Uganda. The duties are as specified in UBTEB Statutory Instrument No. 9 of 2009 and in the BTVET Act, 2008.
Jan 2010 - 2013	Coordinator, Collaboration between DKTE Textiles and Engineering Institute, Ichalkaranji, India and Busitema University	Incharge of planning and coordinating activities, e.g., staff and student exchange, meetings, visiting Professors, joint research and curriculum development between Busitema University and DKTE under the signed MOU between the two institutions.
2004 - 2008	Patron, Lamwo University Students Association (LUSA)	Advising LUSA students on academic and other (social and economic) issues. Guiding LUSA students on writing project proposals for funding. Officiating at LUSA functions and parties. Signing LUSA documents.

2004 - 2008	Coordinator/ Facilitator of Distance-Based Masters Degree Course in Sustainable Energy Engineering at The Department of Mechanical Engineering, Makerere University (course offered by The Department of Energy Technology, School of Energy and Environmental Technology, The Royal Institute of Technology, KTH)	Facilitating admissions and recommending applicants for admissions to the online master's course. Linking up the Professors and Lecturers at the Department of Energy Technology (KTH) with the online master's students in Uganda. Collecting and mailing material that cannot be transmitted electronically. Carrying out other local activities (e.g., monitoring students' course progress, supervision of students' project course, monitoring students' theses progress, examining students' theses presentations, and receiving and proctoring examinations to students according to KTH policies) that are pertinent for the smooth running of the master's programme.
2004 - 2008	In-charge, Departmental Book Bank, Department of Mechanical Engineering, Makerere University	Managing the Mechanical Engineering Departmental Book Bank. Making orders for books to be purchased by the University for the Book Bank. Keeping records of Theses and Projects done by students in the Department.
2004-2010	Secretary, Regional Collaboration, Sida/SAREC ICT and GIS Regional Thematic Research Group	Taking minutes of Sida/SAREC sponsored regional research collaboration meetings of the ICT Thematic Groups of College of Engineering, University of Dar es Salaam (Dar es Salaam, Tanzania), Faculty of Technology, Makerere University (Kampala, Uganda) and Faculty of Engineering, Eduardo Mondlane University (Maputo, Mozambique). Making presentations to plenary sessions of Regional Collaboration Workshops and Conferences. Reminding group members of their tasks.
2003-2010	Task Force Member, Regional Sida/SAREC Research Collaboration	Facilitation of regional research collaboration activities between the Universities of Makerere (Uganda), Dar es Salaam (Tanzania) and Eduardo Mondlane (Mozambique)

2003	Faculty Systems Administrator, Faculty of Technology, Makerere University	Managing Faculty of Technology e-mail accounts. Managing Faculty of Technology Internet Network. General management of Faculty of Technology computers and network connections.
2002-2004	Coordinator, Industrial Training, Department of Mechanical Engineering, Makerere University	Placement of second- and third- year Mechanical Engineering students in Industry and Decentralized Districts for Industrial Training/ Internships. Assigning Industrial Training/ Internship Supervisors to students. Linking Mechanical Engineering Department with Industries and Decentralized Districts of Uganda. Monitoring students' progress and Supervision during Industrial Training/ Internships.
2002	Drafting Committee Member of The Faculty of Technology, Makerere University	Drafting of funding application for the extended Sida/SAREC support to Faculty of Technology, worth SEK 21 million, for the period 2002-2004.
1994-1995	Secretary for Defence, Resistance Council 1 (RC1), Livingstone Hall Village, Makerere University.	Monitoring security in Livingstone Hall. Guiding students on general security issues. Participating in village security meetings.
1994-1995	Secretary for Youth, Resistance Council 2 (RC 2), Makerere University.	Advocating for youth issues in Resistance Council (RC) meetings. Representing Livingstone Village Youths in Resistance Council (RC) meetings.
1993-1994	Project Director, Makerere Engineering Society (MES)	Proposing projects for MES. Guiding MES in development of prototypes for exhibitions.
1992-1995	Class Captain, Mechanical Engineering Classes (Year II to year IV), Makerere University.	Linking students with Professors and Lecturers of courses, and with the Head of Department. Organizing and Coordinating general students' class activities.

1991	Sir-Major, G-Coy, National School of Politicization, Kyankwanzi, Uganda.	Representing students' interests in meetings. Providing general leadership of G-Coy. Linking trainees in G-Coy with the course Instructors. Coordinating training and other extra-curricular activities within G-Coy. Representing the interest of the G-Coy trainees in general assemblies.
1991	Platoon Sergeant, G-Coy, National School of Politicisation, Kyankwanzi, Uganda.	Providing general leadership of the Platoon. Linking trainees in the Platoon with the course Instructors. Coordinating training and other extra-curricular activities within the Platoon. Representing the interest of the Platoon trainees in general assemblies.

[8] MEMBERSHIP OF UNIVERSITY COMMITTEES/ORGANS

Year	Committee/ Organ	Institution
July 2016 - Date	Member of the Staff Development Committee	Busitema University
July 2016 - Date	Member of the Quality Assurance Committee	Busitema University
July 2016 - Date	Chairperson, Academic Affairs and Library Committee of the Third Senate	Busitema University
July 2016 - Date	Chairperson, Admissions Committee of the Third Senate	Busitema University
July 2016 - Date	Member of the Finance, Planning and Investment Committee of the Third University Council	Busitema University
July 2016 - Date	Member of the Third Senate Committee	Busitema University
July 2016 - Date	Member of the Third University Council	Busitema University
Feb 2015 - Date	Chairperson, African Development Bank (AfDB) Higher Education, Science and Technology (HEST) Project Steering Committee. Project worth USD 12.35 million	Busitema University
2013 - 2016	Chairperson, Academic Affairs and Library Committee of the Second Senate	Busitema University
2013 - 2016	Chairperson, Admissions Committee of the Second Senate	Busitema University

2013 - 2016	Member of the Second Senate Committee	Busitema University
2013 - 2016	Member of the Second University Council	Busitema University
2012 - 2013	Member of the Second University Council - Representative of Senate	Busitema University
2012 - 2016	Chairperson, Academic Affairs and Library Committee of the Second Senate	Busitema University
2012 - 2013	Member of The Second Senate Committee - Academic Staff Representative	Busitema University
2012 - 2016	Member of the Admissions Committee of the Second Senate	Busitema University
Jan 2011-2013	Chairperson, University Contracts Committee	Busitema University
2009 - 2012	Chairperson, Academic Affairs and Library Committee of the First Senate	Busitema University
2009 - 2012	Member of The Admissions Committee of the First Senate	Busitema University
2009	Chairman, Planning Committee for the Inauguration of the University and Installation of Chancellor	Busitema University
2009	Chairman, University Strategic Planning Committee	Busitema University
2008	Member of The Search Committee for Chancellor	Busitema University
2008 - 2009	Member of the Search Committee for Vice Chancellor – Senate Representative	Busitema University
2008 - 2012	Member of the Student Affairs and Disciplinary Committee of the First Council	Busitema University
2008 - 2012	Member of the First University Council - Representative of Senate	Busitema University
2008 - 2012	Member of the First Senate Committee - Academic Staff Representative	Busitema University
2007 - Date	Chairman of the University Space Allocation Committee	Busitema University
2007 - Date	Chairman of the Exhibitions Coordination Committee of the University	Busitema University
2007 - 2010	Member of the University Contracts Committee	Busitema University
2007 - 2013	Chairman of the Faculty of Engineering Board - Dean	Busitema University
2004 - 2013	Member of the Departmental Appointments and Promotions Board	Department of Mechanical Engineering, Makerere University

[9] STUDENTS SUPERVISED

[9.1] PhD Students

1. Peter Okidi-Lating, Blekinge Institute of Technology (Sweden) and Makerere University, Thesis title, "*Hybrid E-Learning Application in Rural Secondary Science and Mathematics Education in Uganda.*" – **Completed in March 2009.**
2. Ofine Charles, Blekinge Institute of Technology (Sweden) and Makerere University, Thesis title, "*Investigating the Integration of Monitoring Information systems and data mining techniques in Health care.*" Successfully defended his Licentiate Degree on Thursday 31st March 2011– **Completed on 7th November 2012.**
3. Semwogerere Twaibu, Makerere University, Thesis title, "*Modelling the Effects of the Second Soil Erosion on Engineering Structures.*" – **Completed in 2016.**
4. Lwanyaga Joseph Ddumba, Makerere University, Thesis title, "*Application of Process Technologies for Improved Salt Production from Lake Katwe, Uganda.*" –Supervised upto Proposal Development - **Completed in 2021.**
5. Nasaaga Musa Bashir, Busitema University, Thesis title, "Study of Energy Management Systems for the Integration of Hybrid Wind/Solar PV Distributed Generation Systems to the National Grid: Case Study of Tororo, Uganda."– **Ongoing.**

[9.2] Masters Students

1. Kimera David, Makerere University, Thesis Title, "*Development of a Dual Wind Solar Hybrid Design for Rural Water Pumping and Electrification in Uganda.*" –**Completed in 2007.**
2. Tibesigwa Timothy, Makerere University, Thesis Title, "*The Study of the Possibility of Production of Bio-fuels in Uganda.*" – **Completed in 2006.**
3. Michael Kiza, Royal Institute of Technology, Sweden, Thesis Title, "*Techno-Economic Analysis of Cogeneration Potentials In Ugandan Tea Factories: Case Study of Mpanga Growers Tea Factory.*" – **Completed in 2007.**
4. Kasuntumaire Abdalla, Makerere University, Thesis Title, "*Investigating the extraction of biogas from Water Hycinth.*" – **Ongoing.**
5. Mukisa Henry, Makerere University, Thesis Title, "*Investigating Desirable Characteristics of River Manafwa for Hydropower Development.*" – **Completed in 2008.**
6. Mwesigye Aggrey, Royal Institute of Technology (KTH, Sweden) and Makerere University, Thesis Title, "*Assessing The Possibilities of Utilising*

Landfill Gas in Uganda: The Case of Mpererwe Landfill." – **Completed in 2008.**

7. Etunganan Jacob, Royal Institute of Technology (KTH, Sweden) and Makerere University, Thesis Title, "*A Study of Energy Utilization of Brick Kilns in Uganda: Case Study of Wakiso District, Uganda.*" – **Completed in March 2013.**

8. Fred Lutaaya, Royal Institute of Technology (KTH, Sweden) and Makerere University, Thesis Title, "*Improvement of the Performance of Existing Biogas Digesters in Uganda.*" – **Completed in 2014.**

9. Otim Fredrick Joseph, Makerere University, Thesis Title, "*Micro Hydropower Generation Using Municipal Waste Water: Case Study of National Water and Sewerage Corporation.*" – **Ongoing.**

10. George Tusingwire Mutetweka, Makerere University, Thesis Title, "*Investigation of Resonance in Propeller Turbines: The Case of Units 14/15 Kiira Power Station.*" – **Completed in 2014.**

11. Gyagenda Mubiru Ronald, Makerere University, Thesis Title, "*Analysis of Steam Generation and Distribution in a Tea Factory: The Case of Mpanga Growers Tea Factory Company Limited.*" – **Ongoing.**

12. Isoke Samuel, Makerere University, Thesis Title, "*Effects of Climate Change on Hydropower Production in Uganda: The Case of Kiira and Nalubaale Hydropower Stations.*" – **Ongoing.**

13. Kawuki Joseph, Makerere University, Thesis Title, "*Architecture and Material Implications on Energy Efficiency in Buildings.*" – **Completed in February 2013.**

14. Kissa Denis, Makerere University, Thesis Title, "*Evaluation of Small Hydropower Potential of Ungaged MVEPI Stream for Distributed Generation in Arua District.*" – **Ongoing.**

15. Maureen Nalubowa, Makerere University, Thesis Title, "*Modeling an Improved Lime Kiln for Small Scale Lime Burning in Tororo District.*" – **completed in November 2013.**

16. Mbabazi Raymond Bakame, Makerere University, Thesis Title, "*Determination of the Hydropower Potential at Kinanira Waterfalls on River Kaku in Busanza, Kisoro District.*" – **Ongoing.**

17. Edmond Mark Mpagi, Royal Institute of Technology (KTH, Sweden) and Makerere University, Thesis Title, "*Assessing the Use of Power Generation Technologies in Uganda: A Case Study of Kampala and Jinja Power Project Schemes.*" – **completed in December 2012.**

18. Naturinda Phionah, Makerere University, Thesis Title, "*Energy Audit of Steam Generation and Distribution System in Century Bottling Company Limited in Kampala, Uganda.*" – **Ongoing.**

19. Olaro Oscar, Makerere University, Thesis Title, "*Design and Construction of an Improved Biomass Dryer.*" – **Completed in January 2013.**

20. Omony Richard Jalobo, Makerere University, Thesis Title, "Pico Hydro-Solar Hybrid System for Rural Electrification in Remote Villages: Case Study of Panyimur Landing Site." – **Ongoing**.
21. Amaguru Togboa Clara, Makerere University, Thesis Title, "Design of an Improved Top-Lit Updraft Stove." – **Completed in January 2013**.
22. Abbo Jacqueline, Makerere University, Thesis Title, "Groundnut Shells for Use in a Cook-Stove." – **Ongoing**.
23. Birimumaso David, Makerere University, Thesis Title, "Review of Small Hydropower Potential of Uganda." – **Completed in August 2012**.
24. Tumusiime Edmund, Makerere University, Thesis Title, "Technical Viability of Utilization of Municipal Organic Waste in an Integrated Energy Recovery System: The Case of Kakungulu Satellite City." – **Completed in July 2012**.
25. Cartland Richard, Makerere University, Thesis Title, "Design of a Solar PV-Diesel Standalone Hybrid System in Secondary Schools in Uganda: A Case Study of Kantale High School." – **Completed in 2014**.
26. Turinayo Yonah K., Makerere University, Thesis Title, "Techno-Economic Viability of Husk Powered Systems Applications in Uganda." – **Completed in 2013**.
27. Makumbi Thomas, Royal Institute of Technology (KTH, Sweden) and Makerere University, Thesis Title, "Design of an Eco Village: A Case Study of Bulindo Village." – **Completed in 2014**.
28. Mukwaya Nelson Isaiah, Makerere University, Thesis Title, "Benchmarking the Energy Efficiency of Commercial Office Buildings in Kampala." – **Completed in 2013**.
29. Henry Semaganda, Makerere University, Thesis Title, "Optimization of HVAC Control Strategies by Building Management Systems: Case Study of Sheraton Hotel." – **Ongoing**.
30. Kavuma Chris, Royal Institute of Technology (KTH, Sweden) and Makerere University, Thesis Title, "Variation of Methane and Carbon Dioxide Yield in a Biogas Plant." – **Completed in January 2013**.
31. Kimuli Ismail, Makerere University, Thesis Title, "The Impact of Thermal Power Generation on the Economy and the Environment of Uganda." – **Completed in 2014**.
32. Mugenzi Peter, Makerere University, Thesis Title, "Feasibility Study of a Small Hydropower Plant on River Sisi located on Mount Elgon, Eastern Uganda." – **Ongoing**
33. Okot Richard, Makerere University, Thesis Title, "Assessing the Potential for Energy Recovery from Municipal Solid Waste in Kiira Town Council," – **Ongoing**.
34. Terwane Simon Baalwa, Makerere University, Thesis Title, "Assessment of Crop Water Productivity of Different Farming Practices Under Smallholder Rainfed Systems in the Cattle Corridor of Uganda." – **Ongoing**.

35. Nordino M. Mungoi, Makerere University, Thesis Title, "Resources for Installation of Hydrokinetic Turbines in Mozambique." – **Completed in October 2016.**

36. Ntege Gonzaga, Makerere University, Thesis Title, "Value Engineering Application in the Improvement of the Charcoal Briquetting Process: Case Study of a Cottage Industry in Bweyogerere." – **Completed in July 2015.**

37. Chisomo Kasamba, Makerere University, Thesis Title, "Analysis of Flow Estimation Methods for Small Hydropower Schemes in Malawi." – **Completed in October 2013.**

38. Balla Charles Oryem, Makerere University, Thesis Title, "The Effect of Introducing Air Pressure in Penstock on Turbine Power Output." – **Completed in January 2018.**

39. Turyatamba Baingana Eddy, Makerere University, Thesis Title, "Evaluation of Sedimentation in Run-of-River Hydroelectric Power Development in the Western Region of Uganda." – **Completed in December 2018.**

[10] INTERNATIONAL CONFERENCES AND WORKSHOPS ATTENDED/ PARTICIPATED IN

1. The 5th National Biosafety Forum 2022, 15th to 17th June 2022, Serena Hotel, Kampala. Theme: 25 Years of Biosafety regulatory Stewardship in Uganda - Towards Science, Technology and Innovation Led Sustainable Industrialization.

2. The 2nd Eastern Africa Bioeconomy Conference 2021, 10th to 11th November 2021 (ONLINE). Theme: Building a Sustainable and Resilient African Bioeconomy.

3. Erasmus+ Capacity Building in Higher Education (CBHE) Virtual Fair, 26th to 27th October 2021.

4. The 2nd EAC Science, Technology and Innovation Conference, 27th to 29th October 2021 (ONLINE). Theme: The Role of Science, Technology and Innovation in EAC Regional Integration and Socio-Economic Development in the Phase of COVID-19 Pandemic.

5. The 1st Eastern Africa Bioeconomy Conference 2020, 21st to 22nd October 2020 (ONLINE). Theme: Bioeconomy Growth Prospects for Eastern Africa.

6. Higher Education Partnerships in Sub-Saharan Africa Workshop on Knowledge Dissemination, 13th to 14th September 2018, Nelson Mandela Institute of Science and Technology, Arusha, Tanzania, organized by the College of Engineering and Technology, University of Dar es Salaam in collaboration with the Royal Academy of Engineering, United Kingdom.

7. The 11th Southern Africa Association for Educational Assessment (SAAEA) Conference, Nkopola Lodge, Mangochi, Malawi, 17th to 19th July 2017.

8. Higher Education Partnerships in Sub-Saharan Africa Workshop on Overcoming Barriers to Sustainable University-Industry Collaboration, 11th and 12th May 2017, Sirikwa Hotel Eldoret, Kenya, organized by Moi University in collaboration with the Royal Academy of Engineering, United Kingdom.
9. The Council for Frontiers of Knowledge (The CFK) International Conference, 12th – 16th November 2012, Speke Resort and Conference Center, Munyonyo, Uganda. Theme: “Western Science Meets African Reality.”
10. Second International Conference on Advances in Engineering and Technology (AET 2011), 30th January – 1st February, 2011, Imperial Resort Beach Hotel, Entebbe, Uganda.
11. The 3rd Conference of Vice-Chancellors, Provosts and Deans of Science, Engineering and Technology (COVIDSET 2009), 23rd to 25th November 2009, Kampala, Uganda.
12. Sixth Regional Collaboration Conference on Innovation Systems and Innovative Clusters in Africa, 28th to 30th October 2009, Kunduchi Beach Hotel and Resort, Dar es Salaam, Tanzania.
13. Innovation System and Innovative Cluster Programme, Regional Conference, 25-28 August 2008, Joaquim Chissano International Conference Centre, Maputo, Mozambique.
14. International Conference on Collaborative Research for Technological Development, 17-21 December 2007, Kampala, Uganda.
15. The 2nd African Regional Conference of Vice-Chancellors, Provosts and Deans of Science, Engineering and Technology, 25-27th September 2007, Midrand, South Africa.
16. The First International Conference on Advances in Engineering and Technology, 16-19 July 2006, Entebbe, Uganda
17. The 31st WEDC International Conference, “Maximizing the Benefits from Water and Environmental Sanitation,” 31st October to 4th November 2005, Kampala, Uganda.
18. World Summit on Information Society (WSIS) Preparatory Meeting (Prepcom 3), Geneva, 19-30 September 2005.
19. Innovation Systems and Innovative Clusters in Africa, Regional Conference, February 18-20, 2004, Bagamoyo, Tanzania.
20. Hydro Africa 2003: International Conference on Hydropower, 17-19 November 2003, Arusha, Tanzania.
21. Hydro 2001: Opportunities and Challenges, International Conference on Hydropower and Dams, 27th to 29th September 2001, Riva del Garda, Italy.

[11] OUTREACH ACTIVITIES

August 2007 – September 2009: Involved in The African Knowledge Transfer Partnership (AKTP) project, Titled, “*Determination of Energy Conservation Potential and Identification of Alternative Fuel Options for Clay Baking Manufacturing of Building Products at Uganda Clays Limited,*” as **The Knowledge Base Supervisor**, with the responsibility of Mentoring the Associate Implementing the project. The AKTP project was sponsored by The British Council in Uganda, and was collaboration between Uganda Clays Limited, Kajjansi, Makerere University and The British Council.

[12] RESEARCH/ PROJECT ACTIVITIES DONE

1. Erasmus+ Higher Education Student and Staff Mobility Between Busitema University and the University of Twente, Netherlands. Period: 2021-2023.
2. The Better Education for Africa's Rise (BEAR) II Project. Sponsored by UNESCO and the Republic of Korea. The Project Focused on Facilitating Improvements in the Relevance, Quality and Attractiveness of TVET Programmes at Busitema University to Provide Graduates with a Better Chance of Finding Decent Employment or of Generating Self Employment. Period: 2018-2022.
3. A three years research project titled “***ICT and Adaptation to Climate Change: Innovative and Integrated Solutions to Address Challenges of Water Resources Governance over Lake Victoria Basin.***” The research was implemented as a collaboration between Busitema University (Tororo, Uganda), The University of Dodoma in Tanzania and Kigali Institute of Science and Technology in Rwanda and was supported (USD 597,999) by Lake Victoria Research Initiative (VicRes)
4. A two years research project titled, “***Strengthening Social and Environmental Accounting Practices in Uganda for Sustainable Development.***” The research was implemented as a collaboration between Busitema University, Mbarara University of Science and Technology, and Makerere University Business School and was supported (UGX 32.5 million) by Uganda National Council for Higher Education.
5. Title, “***Instituting Information Communications Technology (ICT) and Geographical Information Systems (GIS) for Sustainable Rural Development,***” Collaborators: Makerere University, Blekinge Institute of Technology (Sweden), Uppsala University (Sweden), Eduardo Mondlane University (Mozambique), University of Dar es Salaam (CoET, Tanzania); Sponsor: Sida/SAREC; Period: 2004-2013.
6. Title, “***Development of Renewable Energy Technologies,***” Collaborators: Makerere University, Royal Institute of Technology (Sweden), Eduardo Mondlane University (Mozambique), University of Dar es Salaam (CoET, Tanzania), Sponsor: Sida/SAREC, Period: 2004-2013.

7. Title: "**Determination of Energy Conservation Potential and Identification of Alternative Fuel Options for Clay Baking in the Manufacture of Building Products at Uganda Clays Limited, Kajjansi,**" Collaborators: Makerere University and University of Edinbrough (United Kingdom); Sponsor: The British Council, Uganda; Budget: £ 23,000; Period: 2007-2009.

8. Title, "**Efficient Stoves for Kampala Roasted Meat Vendors,**" Sponsor: Sida/SAREC Faculty of Technology Research Fund; Budget: USD 6000; Period: 2005-2006.

[13] PUBLICATIONS

1. Twaibu Semwogerere, **Samuel Baker kucel**, Hazairu Igga, Badru Lusiba, Yahaya Gavamukulya, Sophie Namwanje, Richard Opoka awichi, Joseph Matovu KB and Banson John Barugahare, 2022, "A Scoping Analysis of Theories, Models, and Standard Operating Procedures for the COVID-19 Pandemic in Uganda," *International Journal of Tropical DISEASE & Health*, 43(14): 1-7, 2022; Article no. IJTDH. 86850, ISSN: 2278-1005, NLM ID: 101632866.

2. Gashari Tom, Semwogerere Twaibu, **Kucel Samuel Baker** and Magumba David, 2021, "Tomato Yield and Quality Response to Water Application Technique and Management," *European Journal of Engineering and Technology Research*, Vol 6. Issue 7, December 2021, ISSN(Online):2736-576X, DOI: <http://dx.doi.org/10.24018/ejers.2021.6.7.2692>.

3. Miguel Meque Uamusse and **Samuel Kucel**, 2021, "Rural Electrification: Sustainable Energy Solutions with a Focus on Biomass Energy," 6th North American Industrial Engineering and Operations Management (IEOM) Conference, Monterrey, Mexico, November 3-5, 2021, *IEOM Society International*.

4. Mackay A. E. Okure, Yonah K. Turinayo and **Samuel B. Kucel**, 2017, "Techno-Economic Viability of Husk Powered Systems for Rural Electrification in Uganda, Part II: Economic and Policy Aspects," in *The Nexus: Energy, Environment and Climate Change*, Springer International Publishing, Chapter 5, p53-74, Print ISBN 978-3-319-63611-5; Online ISBN 978-3-319-63612-2.

5. H. J. Mongi, A. N. Mvuma, **S. Kucel**, A. J. Tenge and M. Gabriel, 2015, "Accessibility and Utilization of Mobile Phones for Governance of Water Resources in the Lake Victoria Basin: Constraints and Opportunities in Tanzania," *African Journal of Environmental Science and Technology*, <http://www.academicjournals.org/AJEST>, Vol 9(5), pp438-450, May 2015, Article Number: C7FE80C52164, ISSN: 1996-0786, DOI:10.5897/AJEST2014.1818.

6. Chisomo Kasamba, Preksedis Marco Ndomba, **Samuel Baker Kucel**, Miquel M. Uamusse, 2015, "Analysis of Flow Estimation Methods for Small Hydropower Schemes in Bua River," *Energy and Power Engineering*,

<http://www.scirp.org/journal/ep>, February 2015, 7, pp55-62,
<http://dx.doi.org/10.4236/epe.2015.72005>.

7. Twaibu Semwogerere, Peter O. Lating and **Samuel B. Kucel**, "Exploration of Gravel Roads Erosion Data in Uganda," *Proceedings of The Fourth International Conference on Advances in Computing, Electronics and Electrical Technology – CEET 2015, Institute of Research Engineers and Doctors, USA*, ISBN: 978-1-63248-069-9, doi: 10.15224/978-1-63248-069-9-64, pp83-88

8. Charles Tushabomwe Kazooba, David Katamba, Imelda Kemeze and **Samuel Baker Kucel**, 2015, "An Investigation of Techniques of Writing a Fundable Research Grant Proposal: Practical Example from a Developing Country," *International Journal of Science and Research (IJSR)*, www.ijsr.net, Volume 4, Issue 4, April 2015, ISSN (online): 2319-7064

9. Albino J. M. Tenge, Aloys N. Mvuma, **Samuel K. Baker**, Hector J. Mongi, Jonathan Mwakijele and Maria C. Gabriel, 2015, "Community Perception on Lake Victoria Basin Resources Degradation: Implications to Sustainable Management," *Journal of Sustainable Development*, www.ccsenet.org/jsd, Vol 8, No. 2, March 2015, ISSN: 1913-9063, E-ISSN: 1913-9071, <http://dx.doi.org/10.5539/jsd.v8n2p14>.

10. Thomas Makumbi, **Samuel Baker Kucel**, John Baptist Kirabira and Adam Sebbit, 2014, "Design of a Sustainable Energy System for an Eco-Village: A Case Study of Bulindo Village," *Journal of Scientific Research & Reports*, www.sciencedomain.org, 5(4), pp326-343, December 2014, ISSN: 2320-0227, Article Number: JSRR.2015.100.

11. Anthony Faustine, Aloys N. Mvuma, Hector J. Mongi, Maria C. Gabriel, Albino J. Tenge and **Samuel B. Kucel**, 2014, "Wireless Sensor Networks for Water Quality Monitoring and Control within Lake Victoria Basin: Prototype Development," *Wireless Sensor Networks*, <http://www.scirp.org/journal/wsn>, December 2014, 6, pp281-290, <http://dx.doi.org/10.4236/wsn.612027>.

12. Twaibu Semwogerere, Peter O. Lating and **Samuel B. Kucel**, "Erosion Features on Gravel Roads in Uganda – Formation and Effects," *International Journal of Applied Physics and Mathematics (IJAPM)*, Vol. 3, No. 4, July 2013, pp280-285, ISSN 2010-362X.

13. T. Semwogerere, **S. B. Kucel**, P. O. Lating and L. Trojer, "Analysis of Existing Erosion and Deposition Models," *Proceedings of the Second International Conference on Advances in Engineering and Technology (AET 2011)*, 30th January – 1st February, 2011, Imperial Resort Beach Hotel, Entebbe, Uganda, ISBN: 978-9970-214-00-7.

14. A. Mwesigye, **S. B. Kucel** and A. Sebbit, "Opportunities for Generating Electricity from Municipal Solid Wastes: Case of Kampala City Council Landfill," *Proceedings of the Second International Conference on Advances in Engineering and Technology (AET 2011)*, 30th January – 1st

February, 2011, Imperial Resort Beach Hotel, Entebbe, Uganda, ISBN: 978-9970-214-00-7.

15. Otine, C. D., **Kucel S. B.** and Trojer L., "Dimensional Modeling of HIV Data Using Open Source," *Proceedings of World Academy of Science, Engineering and Technology*, Issue 63, March 2010.

16. Timothy Tibesigwa and **Kucel S. B.**, "The Commercial Production of Biodiesel in Uganda: Is it Viable?" *Proceedings of the International Conference on Collaborative Research for Technological Development*, 17-21 December 2007, Kampala, Uganda, 2007.

17. Kiza Michael and **Kucel S. B.**, "Techno-Economic Analysis of Cogeneration Options for Mpanga Growers' Tea Factory," *Proceedings of the International Conference on Collaborative Research for Technological Development*, 17-21 December 2007, Kampala, Uganda, 2007.

18. Mwesigye A., Watta I., **Kucel S. B.**, Okure M. A., Burdendorfer A. and Martin A., "Sustainability of Small Scale Hydro Schemes: A Case Study of Maziba- a 1 MW Power Station" *Proceedings of the International Conference on Collaborative Research for Technological Development*, 17-21 December 2007, Kampala, Uganda, 2007.

19. Otine Charles Daniel, **Kucel S. B.** and Lena Trojer, "Knowledge Discovery in Healthcare Using Data Mining," *Proceedings of the International Conference on Collaborative Research for Technological Development*, 17-21 December 2007, Kampala, Uganda, 2007.

20. Lating P. O., **Kucel S. B.** and Lena Trojer, "E-Learning for Development in Rural Uganda: Co-evolution in Triple Helix Processes," *Proceedings of the International Conference on Collaborative Research for Technological Development*, 17-21 December 2007, Kampala, Uganda, 2007.

21. Lating P. O., **Kucel S. B.** and Lena Trojer, "Longitudinal Analysis of the Performance of Ugandan Rural Advanced-Level Students in Physics Practicals," *Proceedings of the International Conference on Collaborative Research for Technological Development*, 17-21 December 2007, Kampala, Uganda, 2007.

22. B. K. Buhwezi, **S. B. Kucel** and A. G. Kerali, 2007, "Glass," in *Development and Application of Construction Materials in Uganda*, Fountain Publishers, Chapter 11, p138-168, ISBN 97889970-02-681-4.

23. P. O. Lating, **S. B. Kucel** and Lena Trojer, "Strategies for Implementing Hybrid E-Learning in Rural Secondary Schools in Uganda," *Proceedings of the First International Conference on Advances in Engineering and Technology*, 16-19 July 2006, Entebbe, Uganda, 2006 Elsevier Limited, pp538-545, ISBN: 0-080-45312-0.

24. P. O. Lating, **S. B. Kucel** and L. Trojer, "Design and Development of Interactive Multimedia CD-ROMs for Rural Secondary Schools in Uganda," *Proceedings of the First International Conference on Advances in*

Engineering and Technology, 16-19 July 2006, Entebbe, Uganda, 2006 Elsevier Limited, pp546-553, ISBN: 0-080-45312-0.

25. M. Okure, J. A. Ndemere, **S. B. Kucel** and B. O. Kjellstrom, "Suitability of Agricultural Residues as Feedstock for fixed bed Gasifiers," *Proceedings of the First International Conference on Advances in Engineering and Technology*, 16-19 July 2006, Entebbe, Uganda, 2006 Elsevier Limited, pp756-763, ISBN: 0-080-45312-0.

26. Da Silva I. P., C. K. Kutty, Nturanabo F. and **Kucel S. B.**, "Stand Alone Small Level Power Systems Based on Utilization of Agricultural Residues (Benecke System)," *Proceedings of the Conference on Domestic use of Energy*, 2nd – 3rd April 2003, Cape Town, South Africa, pp187-191.

27. Rodolfo Pallabazzer and **Samuel Baker Kucel**, "Small Hydropower Plants can Support Uganda's Economic Growth," *Proceedings of Hydro Africa 2003: International Conference on Hydropower*, 17-19 November 2003, Arusha, Tanzania, pp1/7-7/7.

28. **Samuel Baker Kucel**, 2003, "Energy Supply and COMESA," *Proceedings of Climate Network Africa: The Workshop on Energy Demand, CDM, NEPAD and Millennium Development Goals in East Africa*, 22-23 November 2003, Hilton Hotel, Nairobi, Kenya.

29. **Samuel Baker Kucel**, 2001, "Exploitation of Water Resources For Micro And Mini Hydropower Plants," a thesis report submitted for the award of Doctor of Philosophy Degree of the University of Udine/Trento, Italy.

30. **Samuel Baker Kucel**, 1998, "Comparison of Refrigerant Performance," a thesis report submitted for the award of the degree of Master of Engineering Science in Mechanical Engineering of the University of New South Wales, Sydney, Australia.

31. **Samuel Baker Kucel**, 1995, "Improvement on the Calorific Value of Manufactured Charcoal Briquettes from Biomass," a project report submitted for the award of the degree of Bachelor of Science in Engineering of Makerere University, Kampala, Uganda.

[14] LANGUAGE SKILLS

Language	Language Skills			
	Listening	Speaking	Reading	Writing
English	Excellent	Excellent	Excellent	Excellent
Kiswahili	Good	Fair	Fair	Fair
Italian	Very Good	Good	Good	Good
Luo	Excellent	Excellent	Excellent	Excellent
Luganda	Good	Good	Fair	Fair