

# Curriculum Vitae

## Personal information

First name / Surname **Samson RWAHWIRE**  
Address Busitema University,  
Directorate of Graduate Studies, Research and Innovations,  
P. O Box 236, Tororo  
Uganda  
Mobile/Whatsapp +256-776-369920  
E-mail(s) rbsjunior@gmail.com; rsammy@eng.busitema.ac.ug  
Nationality UGANDAN  
Place and Date of birth Mulago – Kampala (Uganda) on 30<sup>th</sup> January 1982  
Religion Seventh-Day Adventist  
Status and Gender Married; Male



## Desired Appointment **Board Member – Uganda Airlines**

## Work experience

Dates	10/2019 to-date
Occupation or position held	<b>DIRECTOR</b> , Directorate of Graduate Studies, Research and Innovations, Busitema University
Dates	3/2018 to 6/2019
Occupation or position held	<b>AG. DIRECTOR</b> , Directorate of Graduate Studies, Research and Innovations, Busitema University
Dates	June 2018 to-date
Occupation or position held	<b>MANAGING DIRECTOR</b> TEM Analytica Ltd. Technology, Engineering and Materials Consultants
Dates	6/2017 to 3/2018
Occupation or position held	<b>DEPUTY COORDINATOR</b> , Directorate of Graduate Studies, Research and Innovations, Busitema University
Dates	August 2019 to-date
Occupation or position held	<b>ASSOCIATE PROFESSOR</b> , Busitema University, Faculty of Engineering, Department of Polymer, Textile & Industrial Engineering (UGANDA)
Dates	1/2015 to 6/2019
Occupation or position held	<b>SENIOR LECTURER</b> , Busitema University, Faculty of Engineering, Department of Textile & Ginning Engineering (UGANDA)
Dates	10/2011 to 12/2014
Occupation or position held	<b>LECTURER</b> , Busitema University, Faculty of Engineering, Department of Textile & Ginning Engineering (UGANDA)
Dates	06/2010 to 10/2011
Occupation or position held	<b>ASSISTANT LECTURER</b> , Busitema University, Faculty of Engineering, Department of Textile & Ginning Engineering (UGANDA)
Dates	09/2010 to 09/2014
Occupation or position held	<b>Ag. HEAD, DEPARTMENT OF TEXTILE&amp;GINNING ENGINEERING</b>
Dates	24th Nov to 3rd Dec. 2010; 28th Jan to 4th Feb 2011; 10th Mar to 24th Mar 2011

**Ag. DEAN, FACULTY OF ENGINEERING**

Occupation or position held Busitema University, P.O Box 236, Tororo, Uganda – East Africa  
 Name and address of employer

Dates 11/2009 to 06/2010

Occupation or position held **AIRCRAFT ENGINEER**  
 Name and address of employer Eagle Air Ltd., 11 Portal Avenue, P.O Box 7392, Kampala – Uganda

Dates 8/2008 to 11/2009

Occupation or position held **RESEARCH ASSISTANT**  
 Name and address of employer Czech Technical University in Prague,  
 Department of Strength and Elasticity of Materials

Dates 30/06/2007 - 30/09/2007

Occupation or position held **COMPOSITE LAMINATOR**  
 Name and address of employer LA Composite s.r.o., Beranových 65, Prague 9, 199 02, Czech Republic

Type of business or sector Development and production of composite and sandwich structures for Boeing B787;  
 Airbus, Eurocopter, Evektor etc.

Dates 07/2002 - 10/2002

Occupation or position held **LABORATORY ASSISTANT**  
 Type of business or sector Government Chemist and Analytical Laboratory- Uganda  
 Ministry of Internal Affairs

**Education and training**

**Dates 10/2012 – 10/2016**

**Title/ Qualification Ph.D. (Material Engineering)**

Name and type of organisation Technical University of Liberec, (TU Liberec)  
 Faculty of Textile Engineering  
 Department of Material Engineering

Research field/ Thesis topic *Mechanical and Thermo-acoustic Characterization of Barkcloth and Its Polymer Reinforced Composites*

**Dates 09/2003 - 08/2008**

**Title of qualification awarded MASTER IN MECHANICAL & AEROSPACE ENGINEERING (BSc. and MSc. integrated)**

Principal subjects / occupational skills covered Mechanical and Aerospace Engineering

Research field/ Thesis topic *Structural Analysis of Composite Elements using the Finite Element Method*

Name and type of organisation providing education and training Czech Technical University, (CTU Prague)  
 Faculty of Mechanical Engineering  
 Department of Aerospace Engineering

Dates 10/ 2002 – 05/2003

Charles University, Institute for Language and Preparatory Studies, Podybrady – Czech Republic

Dates 2000 Uganda Advanced Certificate of Education, Kololo SS

Dates 1998 Uganda Certificate of Education, City High School

Dates 1994 Primary School Leaving Certificate, Mbuya C/U Primary School

**PROFESSIONAL UNIVERSITY CERTIFICATES**

1. **MASTERING BITUMEN FOR BETTER ROADS AND INNOVATIVE APPLICATIONS** by École des Ponts ParisTech, France on Coursera

	<ol style="list-style-type: none"> <li>2. <b>FORENSIC SCIENCE</b> by Nanyang Technological University, Singapore on Coursera</li> <li>3. <b>SMART TEXTILES</b> – University of Ghent, Belgium</li> <li>4. <b>CIVIL AVIATION PRODUCTS UNDER THE REQUIREMENTS OF EUROPEAN AVIATION SAFETY AGENCY, EASA PART 21</b> – Brno University of Technology, Czech Republic.</li> <li>5. <b>DESIGN, ANALYSIS AND MECHANICS OF COMPOSITE STRUCTURES</b> – Czech Technical University, Czech Republic</li> </ol>
<p style="text-align: center;"><b>OTHER DUTIES/RESPONSIBILITIES</b></p>	<ol style="list-style-type: none"> <li>1. Member, Uganda Airlines Board <b>(2022 –to date)</b></li> <li>2. Chair - Operations, Safety, Security and Technology Committee, Uganda Airlines Board <b>(2022 –to date)</b></li> <li>3. Member of the Faculty of Engineering Board <b>(2010 – 2014)</b>.</li> <li>4. Chair, Department of Textile and Ginning Engineering Board <b>(2010 – 2014)</b>.</li> <li>5. Member, Open Access and Institutional Repository Committee <b>(2017 to-date)</b></li> <li>6. Member, Adhoc Committee for Investigation of Disposal of University Equipment (2017)</li> <li>7. Member, Busitema University Senate <b>(2018 to-date)</b></li> <li>8. Member, University Management <b>(2018 to-date)</b></li> <li>9. Member, Board of Graduate Studies, Research and Innovations <b>(2017 to-date)</b></li> <li>10. Member, Library and Academic Affairs Committee of Senate <b>(2018 to-date)</b></li> <li>11. Member, Staff Development Committee <b>(2018 to-date)</b></li> <li>12. <b>Focal Person</b> – The Regional Universities Forum for Capacity Building in Agriculture, RUFORUM <b>(2018 to-date)</b></li> <li>13. <b>Focal Person</b> – The Inter-University Council for East Africa, IUCEA <b>(2019 to-date)</b></li> <li>14. <b>Partner University Coordinator</b> – Makerere – <i>Sweden</i> Bilateral Research Programme <b>(2018 to 2022)</b></li> <li>15. <b>Focal Person</b> – African Institute for Capacity Development, AICAD <b>(2019 to-date)</b></li> </ol>
<p style="text-align: center;"><b>COMPUTER SKILLS AND COMPETENCES</b></p>	<ul style="list-style-type: none"> <li>• Element Stress Analysis software (ABAQUS).</li> <li>• Computational Fluid Dynamics software (Fluent-Basic level)</li> <li>• Scripting language (Basic C++, Matlab- basic, html).</li> <li>• Skills in Audio and Movie Applications (Adobe Photoshop, Movie Maker, Sony Sound Forge, Adobe after effects, Sony Vegas Pro; Adobe Audition, Adobe Premiere Pro); 2D movie animations (Adobe Flash CS4)</li> <li>• Good command of Microsoft Office (Word, Excel, Power point, Project)</li> </ul>
<p style="text-align: center;"><b>AWARDS</b></p>	<ol style="list-style-type: none"> <li>1. Uganda-Czech governments Scholarship</li> <li>2. Deans Merit Scholarship for excellent results in 5th year of integrated Master Studies</li> <li>3. First Prize Poster Award at 2008 PEGASUS-AIAA Student Conference (Award by Airbus).</li> <li>4. AAU Small Grants for Theses and Dissertations.</li> <li>5. Best Paper Presentation Award, ICEMS, 2016, Singapore.</li> </ol>
<p style="text-align: center;"><b>MEMBERSHIP TO PROFESSIONAL ORGANIZATIONS</b></p>	<ol style="list-style-type: none"> <li>1. Next Einstein Forum Fellow (2019 – 2021)</li> <li>2. Fellow, Uganda National Academy of Sciences (UNAS)</li> <li>3. Processing membership to Uganda Institution of Professional Engineers (UIPE)</li> </ol>
<p style="text-align: center;"><b>FUNDED PROJECTS/GRANTS</b></p>	<ol style="list-style-type: none"> <li>1. \$12,000 - Banana Fibre – Development of a novel sustainable concept to utilization of banana pseudo-stem for textile fibre. 2013-2015 – National Council for Higher Education (PI)</li> <li>2. \$4000 –Small Theses and Dissertation grant, Association of African Universities (PI).</li> <li>3. \$6000 – Development of Taught Doctor of Philosophy in Materials Engineering at Busitema University, Makerere – Sweden Programme (Lead person)</li> <li>4. 2019 – 2022 DAAD In-country and In-region scholarships to Busitema University</li> </ol>

(Grant Coordinator)

5. €18,500 2020 – 2025 University Network for PhD programmes in Energy (Co-Investigator)
6. UGX 100M 2021 – 2020 Busitema Light Board (Principal Investigator)

**ACADEMIC PROGRAMMES DEVELOPED**

1. BSc in Polymer, Textile and Industrial Engineering (*Running*)
2. MSc in Material Engineering (*Running*)
3. PhD in Materials Engineering (*Due for Accreditation*)

**Programmes developed with full written curriculum but not submitted to Senate**

1. BSc in Mechanical and Aeronautical Engineering

**CONSULTANCY**

<i>Appointing Body</i>	<i>Duties</i>
Commission for University Education, Kenya	Review of Doctor of Philosophy in Material and Textile Engineering (October 2017 – Kenya)
Ministry of Education and Sports	Pre-shipment inspection of Equipment and accessories for Mechanical Engineering Laboratories of Makerere University – College of Engineering, Design, Art and Technology; Kyambogo University; Busitema University and Mbarara University.(July, 2018 – Netherlands)
Uganda National Council for Science and Technology	Equipment specifications for the Science, Technology, Engineering and Innovation Skills Enhancement Center at Sanga

**SUPERVISION OF STUDENTS**

<b>Degree</b>	<b>Number of Students</b>
BSc	20
MSc	8
PhD	1

**Theses/Dissertations supervised**

1. Ebic Andrew, Application of a Multi-Criterial Evaluation (MCE) Technique in Land Suitability Assessment for Surface Irrigation (*MSc Completed*)
2. Eriamu Sam, Water Allocation Planning in Awoja Catchment Using Water Evaluation and Allocation Planning (WEAP), Uganda (*MSc Completed*)
3. Adongo Owora Leo, Application of SWAT Model in Hydrological Assessment to Guide Irrigated Agriculture in Malaba Sub Catchment (*MSc Completed*)
4. Ocung Denis, Assessment of Ground Water Potential For Irrigation (*MSc ongoing*)
5. Tumusiime Godias, Analysis of the Static Mechanical Properties Of Nanoparticle Coated Silk Waste Reinforced PLA Biocomposite (*MSc ongoing*)
6. Totokoja Joweraia, Computational Fluid Dynamics of Vertical Axis Wind Turbine for Localization in Low Wind Speed Areas Of Tororo District (*MSc ongoing*)
7. Nagulama Moses, Modeling of Tire-Road Surface Interaction Under Wet conditions (*MSc ongoing*)
8. Alibet Frances, Development and Characterization of Ficus Natalensis and Glass Fibre Reinforced Polyester Hybrid Composites (*MSc ongoing*)
9. Moses Egor, Cellulose-Bimetal Nanocomposite Adsorbent for Defluoridation of Groundwater From Sukulu Hills, Uganda (*PhD ongoing*)

**Theses/Dissertations examined**

1. Application of SWAT To identify Potential Irrigation Development Sites: A Case Study of Upper Aswa Catchment – Northern Uganda (MSc Dissertation)
2. Evaluation of on-farm water productivity of furrow, basin and hose- pipe irrigation methods in tomato production under supplementary irrigation (MSc Dissertation)
3. Development and Characterization of Biocomposite Polymers Using Rice and Coffee Husks as Filler Material (MSc Dissertation)

4. Characterization of Rice Husk Ash Generated from Different Varieties of Rice in Uganda for Key Engineering Applications (MSc Dissertation)

## COURSES TAUGHT

### Undergraduate Students

No.	Course	Academic Year
1	Engineering Mechanics III	2010/2011 to date
2	Engineering Mechanics I	2010/2011 to date
3	Material Science	2010/2011 2018/2019
4	Design of Machine Elements	2011/2012
5	CAD (Solid Edge)	2011/2012
6	Composite Materials	2012/2013; 2017/2018
7	High Performance Fibers	2013/2014
8	Smart Textiles	2013/2014
9	Gender in Textiles	2014/2015
10	Engineering Mechanics	2016/2017; 2017/2018
11	Technical Textiles	2016/2017; 2017/2018
12	Material Science and Engineering	2017/2018 to date
13	High Performance Fibers	2017/2018

### Postgraduate Students

1. Applied Hydraulics (2017/2018; 2018/2019) – MSc course
2. Composite Materials (2017/2018); PhD course
3. Viscous and Compressible Fluids (2018/2019 to date) – MSc course

## VISITING LECTURER

No.	University	Course Taught	Level of Students
1	Technical University of Liberec	Composite Materials	PhD

## COMMUNITY OUTREACH

Date	Activity
Jan 2017 to date	Member, Bugema University Council
Feb 2014	Academic talk and Scholarstic Materials Distribution to Busitema College Primary School
July 2017 to date	President, Adventist Engineering Society

## PUBLICATIONS

Item	International	Regional (Africa)	National (Ugandan)	Total
<b>Journal Manuscripts</b>	25	-	-	25
<b>Book chapters</b>	7	-	-	7
<b>Conferences</b>	11	3	-	14
<b>Invited Speaker</b>	-	1	-	1
<b>Textbook</b>	1			1
<b>Theses</b>	2			2
<b>TOTAL NUMBER OF PUBLICATIONS</b>				<b>50</b>

Google Scholar: <https://scholar.google.com/citations?user=hfKVFroAAAAJ&hl=en>

Youtube: [www.youtube.com/channel/UCU8B39bh-OdLZefa4jmev2A](http://www.youtube.com/channel/UCU8B39bh-OdLZefa4jmev2A)

Research Gate: [www.researchgate.net/profile/Samson\\_Rwawiire](http://www.researchgate.net/profile/Samson_Rwawiire)

## News:

[https://www.newvision.co.ug/new\\_vision/news/1473773/busitema-university-innovates-light-board-technology-learning](https://www.newvision.co.ug/new_vision/news/1473773/busitema-university-innovates-light-board-technology-learning)

## Video:

<https://www.youtube.com/watch?v=Lod7LzVY9a4>

**JOURNAL MANUSCRIPTS**

1. **Rwawiire, S.**, Tomkova, B., Militky, J., Wiener, J., Hes, L., Jabbar, A. (2017). Thermal and acoustic Properties and Modeling of the Cellulose Nonwoven Natural Fabric (Barkcloth), *Applied Acoustics*, 116, 177–183.  
<http://www.sciencedirect.com/science/article/pii/S0003682X1630305X>
2. Jabbar, A., Militky, J., Wiener, J., Kale, B. M., Ali, U., & **Rwawiire, S.** (2017). Nanocellulose coated woven jute/green epoxy composites: Characterization of mechanical and dynamic mechanical behavior. *Composite Structures*, 161, 340-349.  
<http://www.sciencedirect.com/science/article/pii/S0263822316319961>
3. **Rwawiire, S.**, Tomkova, B., Militky, J., Wiener, J., Kale, B. M. (2016). Short-Term Creep of Barkcloth Reinforced Laminar Epoxy Composites. *Composites Part B: Engineering*, 103, 131-138.  
<http://www.sciencedirect.com/science/article/pii/S1359836816307429>
4. **Rwawiire, S.**, Tomkova, B., Militky, J., Hes, L., Kale, B. M. (2016). Empirical Modeling of Sound Absorption Properties of Natural Nonwoven Fabric (Antiaris toxicaria Barkcloth). *Materials Science Forum*, 866, 201-205.  
<https://www.scientific.net/MSF.866.201>
5. Kale, B.M., Wiener, **Rwawiire, S.**, Militky, J. (2016). Development of Photocatalytic Self-cleaning Cotton Fabric. *Materials Science Forum*, 866, 171-175. <https://www.scientific.net/MSF.866.171>
6. Kale, B.M., Wiener, J., Militky, J., **Rwawiire, S.**, Mishra, R., Karl, I. J., Youjiang, W. (2016). Coating of Cellulose-TiO<sub>2</sub> nanoparticles on cotton fabric for durable Photocatalytic self-cleaning and stiffness. *Carbohydrate Polymers*, 150, 107-113.  
<http://www.sciencedirect.com/science/article/pii/S0144861716305197>
7. **Rwawiire, S.**, & Tomkova, B. (2016). Static and Dynamic mechanical properties of barkcloth (*Ficus natalensis*) reinforced epoxy composite. *Journal of Natural fibers*, 13 (2), 137 – 145.  
<http://www.tandfonline.com/doi/abs/10.1080/15440478.2014.984061?journalCode=wjnf20>
8. Jabbar, A., Militky, J., Kale, B. M., **Rwawiire, S.**, Nawab, Y., & Baheti, V. (2016). Modeling and analysis of the creep behavior of jute/green epoxy composites incorporated with chemically treated pulverized nano/micro jute fibers. *Industrial Crops and Products*, 84, 230-240.  
<http://www.sciencedirect.com/science/article/pii/S0926669015306440>
9. 10. Jabbar, A., Militky, J., Wiener, J., Usman, M., **Rwawiire S.** (2016). Tensile, Surface and Thermal Characterization of Jute Fibers after Novel Treatments. *Indian Journal of Fiber and Textile Research*, 41, 249-254.  
<http://op.niscair.res.in/index.php/IJFTR/article/view/7896>
10. **Rwawiire, S.**, & Tomkova, B. (2016). Effect of enzyme and plasma treatments of Barkcloth from *Ficus natalensis*: Morphology and thermal behavior, *The Journal of The Textile Institute*, 107 (5), 663-671.  
<http://www.tandfonline.com/doi/abs/10.1080/00405000.2015.1055989?journalCode=tjti20>
11. Kale, B.M., Wiener, J., Militky, J., **Rwawiire, S.**, Mishra, R., Jabbar, A.

- (2015). Dyeing and stiffness characteristics of cellulose-coated cotton fabric. *Cellulose*, 23, 981-992. <http://link.springer.com/article/10.1007/s10570-015-0847-0>
12. **Rwawiire, S.**, Tomkova, B., Militky, J., Jabbar, A., & Kale, B. M. (2015). Development of a biocomposite based on green epoxy polymer and natural cellulose fabric (bark cloth) for automotive instrument panel applications. *Composites Part B: Engineering*, 81, 149-157. <http://www.sciencedirect.com/science/article/pii/S1359836815003972>
  13. **Rwawiire, S.**, Tomkova, B., Militky, J., Gliscinska, E., Krucinska, I., Michalak, M., Jabbar, A. (2015). Investigation Of Sound Absorption Properties Of Bark Cloth Nonwoven Fabric And Composites, *Autex Research Journal*, 15(3), 173-180. <https://www.degruyter.com/view/j/aut.ahead-of-print/aut-2015-0010/aut-2015-0010.xml>
  14. **Rwawiire, S.**, & Tomkova, B. (2015). Morphological, Thermal, and Mechanical Characterization of Sansevieria trifasciata Fibers. *Journal of Natural Fibers*, 12(3), 201-210. <http://www.tandfonline.com/doi/abs/10.1080/15440478.2014.914006?journalCode=wjnf20>
  15. **Rwawiire, S.**, & Tomkova, B. (2015). Thermal, static and dynamic mechanical properties of bark cloth (*Ficus brachypoda*) laminar epoxy composites. *Polymer Composites*, DOI: 10.1002/pc.23576 <http://onlinelibrary.wiley.com/doi/10.1002/pc.23576/pdf>
  16. **Rwawiire, S.**, & Tomkova, B. (2014). Thermo-physiological and comfort properties of Ugandan Bark cloth from *Ficus natalensis* *Journal of the Textile Institute*. 105 (6), 648-653. <http://www.tandfonline.com/doi/abs/10.1080/00405000.2013.843849>
  17. **Rwawiire, S.**, Tomkova, B., Militky, J., Bandu, K. (2014). Effect of layering pattern on the static and dynamic mechanical properties of bark cloth (*Ficus natalensis*) laminar epoxy composites. *Journal of Polymer Analysis and Characterization*. 20 (2), 160-171. <http://www.tandfonline.com/doi/abs/10.1080/1023666X.2015.988534>
  18. **Rwawiire, S.**, Kasedde, A., Nibikora, I., & Wandera, G. (2014). Prediction of Polyester/Cotton Ring Spun Yarn Unevenness Using Adaptive Neuro Fuzzy Inference System. *Journal of Textile and Apparel, Technology and Management*, 8(4). <http://ojs.cnr.ncsu.edu/index.php/JTATM/article/view/4722>
  19. **Rwawiire, S.**, G. Habbi., J. Okello. (2014). Comparative evaluation of the dynamical mechanical properties of woven Sansevieria and Banana fiber laminar epoxy composites, *Tekstilec 57(4)*, 315-320. <http://www.tekstilec.si/wp-content/uploads/2014/12/315-320.pdf>
  20. **Rwawiire, S.**, Luggya, G. W., & Tomkova, B. (2013). Morphology, Thermal, and Mechanical Characterization of Bark Cloth from *Ficus natalensis*. *ISRN Textiles*. <https://www.hindawi.com/journals/isrn/2013/925198/>
  21. **Rwahwire, S.**, Musinguzi, W., B. (2019) Impact Resistance and Shore Hardness of Barkcloth Reinforced Epoxy Composites for Interior Automotive Panels. *Materials Science Forum*, 951, 9-13 <https://www.scientific.net/MSF.951.9>
  22. Kale, B. M., **Rwahwire, S.**, Nilkanth Kisan Kale, Musinguzi, W., B. (2019) PLA Composite Films Based On Acetate Substituted Microcrystalline Cellulose. *Key Engineering Materials*, 801, 133-138 <https://www.scientific.net/KEM.801.133>
  23. Nambajjwe, Nambajjwe, C., Musinguzi, W. B., **Rwahwire, S.**, Kasedde, A., Namuga, C., & Nibikora, I. (2020). Improving electricity from silk cocoons

through feeding silkworms with silver nanoparticles. *Materials Today: Proceedings*, 28, 1221-1226.

<https://www.sciencedirect.com/science/article/pii/S2214785320306234>

24. Nagulama, M., **Rwahwire, S.**, Mbabazi, F. K., & Tulirinya, J. (2021). Modeling of Tire-Road Surface Interaction under Wet Conditions. *Asian Journal of Pure and Applied Mathematics*, 9-28.  
<https://www.globalpresshub.com/index.php/AJPAM/article/view/1336>
25. Mbabazi, F. K., Gavamukulya, Y., Awichi, R., Olupot–Olupot, P., **Rwahwire, S.**, Biira, S., & Luboobi, L. S. (2020). A Mathematical Model Approach for Prevention and Intervention Measures of the COVID–19 Pandemic in Uganda.  
<https://www.medrxiv.org/content/10.1101/2020.05.08.20095067v1>

#### **BOOK CHAPTERS**

26. **Rwawiire, S.**, Tomkova, B., Militky, J. (2015). A review of Acoustic Absorption Materials: Sustainable Natural Fibrous Materials, *In Recent Developments in Fibrous Material Science*, Volume II, 182-198, ISBN 978-80-87269-45-9.
27. Aravin Prince Periyasamy, **Rwahwire S.**, Yan Zhao (2018). Environmental friendly textile processing. *In Handbook of Eco materials*. Springer, ISBN 978-3-319-68254-9  
[https://link.springer.com/referenceworkentry/10.1007%2F978-3-319-68255-6\\_176](https://link.springer.com/referenceworkentry/10.1007%2F978-3-319-68255-6_176)
28. Periyasamy, A. P., Ramamoorthy, S. K., **Rwawiire, S.**, & Zhao, Y. (2018). Sustainable Wastewater Treatment Methods for Textile Industry. In *Sustainable Innovations in Apparel Production* (pp. 21-87). Springer, Singapore.  
[https://link.springer.com/chapter/10.1007/978-981-10-8591-8\\_2](https://link.springer.com/chapter/10.1007/978-981-10-8591-8_2)
29. **Rwahwire, S.**, Tomkova, B., Periyasamy, A. P., & Kale, B. M. (2019). Green thermoset reinforced biocomposites. In *Green Composites for Automotive Applications* (pp. 61-80). Woodhead Publishing.
30. **Rwahwire, S.**, Namuga, C., & Ildephonse, N. (2020). Application of Electrospun Materials in Packaging Industry. *Electrospun Materials and Their Allied Applications*, 131-149.  
<https://onlinelibrary.wiley.com/doi/abs/10.1002/9781119655039.ch5>
31. **Rwahwire, S.**, Okinyi, S., Electroactive Polymers for Space Applications. *Chapter in edited book Electroactive Polymeric Materials: Fundamentals and Applications by CRC Press*

#### **TEXT BOOKS**

32. **Rwahwire, S.**, Nibikora, I., Mwaikambo, L.Y., Tomkova, B., Periyasamy, A.P. (2020). Textile Reinforced Concrete Composites (*To be published by Springer*).

#### **MANUSCRIPTS IN CONFERENCE PROCEEDINGS**

33. Nambajjwe, C., Musinguzi, W. B., **Rwahwire, S.**, Kasedde, A., Namuga, C., & Nibikora, I. (2020). Improving electricity from silk cocoons through feeding silkworms with silver nanoparticles *In Proceedings (2nd International Conference on Recent Advances in Materials & Manufacturing Technologies (IMMT2019), Dubai, UAE, November 20-22, 2019*
34. Bandu Madhukar Kale, **Samson Rwahwire**, Nilkanth Kisan Kale, Wilson



- Babu Musinguzi. 2018. PLA Composite Films Based On Acetate Substituted Microcrystalline Cellulose. *In Proceedings 4th International Conference on Composite Materials and Material Engineering (ICCMME2019), Japan, January 19-22, 2019*
- 35. Samson Rwahwire** and Wilson Musinguzi. 2018. Impact Resistance and Shore Hardness of Barkcloth Reinforced Epoxy Composites for Interior Automotive Panels. *In Proceedings of the 3rd International Conference on Frontiers of Composite Materials (ICFCM2018), Sydney, Australia, November 16-18, 2018*
- 36. Rwawiire, S.**, Tomkova, B., Militky, Bandu, M. (2016). Creep of Barkcloth Reinforced Laminar Epoxy Biocomposites. *In: Proceedings of the Fiber Society Conference, Ithaca, New York – USA, October, 10-12, 2016*
- 37. Rwawiire, S., Tomkova, B., Militky, J., Hes, L., Bandu, M.** Empirical Modeling of Sound Absorption Properties of Natural Nonwoven Fabric (Antiaris toxicaria Barkcloth). *In: Proceedings of First International Conference on Civil Engineering and Materials Science, Singapore, 1-3 May 2016 [BEST ORAL PAPER AWARD]*
- 38. Rwawiire, S., & Tomkova, B.** (2015). Barkcloth (Ficus natalensis) reinforced epoxy composites: Effect of enzyme and plasma treatments on morphology, thermal, static and dynamic mechanical properties. *In: Proceedings of the 5th International Conference on Innovative Natural Fibre Composites for Industrial Applications, ISBN 978-88-9092-400-2, Rome - Italy, 15-16 October 2015*
- 39. Rwawiire, S., & Tomkova, B.** (2014). Comparative evaluation of the dynamic mechanical properties of bark cloth epoxy laminar composites. *In: Proceedings of the Workshop for PhD students of the faculty of textile engineering and faculty of mechanical engineering, 112-116, ISBN 978-80-7494-100-9, Liberec – Czech Republic*
- 40. Rwawiire, S., & Tomkova, B.** (2014). Comparative evaluation of the thermal conductivity of bark cloth epoxy composites. *In: Proceedings of the Fiber Society Conference, Liberec – Czech Republic, 21-23 May 2014*
- 41. Rwawiire, S., Wandera, J.** (2012). Natural Fibres: A Blue Print for Ecofriendly Textiles and Biocomposites. *In: Proceedings of XV<sup>th</sup> International Scientific and Practical Workshop: Physics of Fibrous Materials, 67-73, ISBN 978-5-88954-374-9, Ivanova - Russia.*
- 42. Rwawiire, S., Akanyijuka, M.** (2011). Harnessing the potential of selected plant based fibers for sustainable development through value added products. – *In: Proceedings of Moi University 7<sup>th</sup> Annual International Conference, Eldoret - Kenya, 2011*

#### **CONFERENCE ABSTRACTS**

- 43. Rwawiire, S.** Namuga, C., Kucel, S.B, Gudoi, D. Processing of Natural Fibre Textile from Ficus natalensis and Antiaris toxicaria. - *International Symposium on Sustainable Development through Research in Natural Textile Fibres, Textile Products, Trade and Marketing, 5<sup>th</sup> – 8<sup>th</sup> March 2012, Kisumu – Kenya*
- 44. Rwawiire, S.** Kucel, S.B Buckling and Post-buckling analysis of textile composite panels - *International Symposium on Sustainable Development through Research in Natural Textile Fibres, Textile Products, Trade and Marketing, 5<sup>th</sup> – 8<sup>th</sup> March 2012, Kisumu – Kenya*
- 45. Rwawiire, S.** Prucha, P. Analysis of adhesively bonded stringer-stiffened panel for assessing the strength of adhesive layer. - *Pegasus-AIAA International Student Conference, 2008, Prague – Czech Republic [FIRST*

**PRIZE]**

- 46. Kale, B.M., Wiener, J., **Rwawiire, S.**, Militky, J. 2016. Antibacterial and SelfCleaning Cotton Fabric by Nano TiO<sub>2</sub>-Cellulose Coating. *Poster in 8th International Conference on Nanomaterials - Research & Application*, October 19th - 21st 2016, Brno, Czech Republic.

**INVITED CONFERENCE SPEAKER**

- 47. **Rwawiire, S.** Ginning Sector Training in the East African Community - *1<sup>st</sup> International East African Cotton, Textile and Apparel Value Chain Conference*, Mombasa – Kenya, 2011

**THESES**

- 48. Mechanical and Thermo-acoustic Characterization of Barkcloth and Its Polymer Reinforced Composites, Ph.D Thesis, 2016 – TU Liberec
- 49. Analysis of Composite Elements using the Finite Element Method, Master’s thesis, 2008 – CTU Prague

**PRINT/ONLINE MEDIA ARTICLES**

- 1. On 26<sup>th</sup> February 2017, I appeared on Prime Radio 91.9FM, Kampala educating the nation on the topic: Improving Our Education Sector: Mapping the Right Direction in Skilling Ugandans.
- 2. The national newspaper, New Vision article published online on 27<sup>th</sup> February 2017, presenting a case for the increase in utilization of Forensic Science titled “*Golden bullet to solve crime cases backlog in Uganda*” [http://www.newvision.co.ug/new\\_vision/news/1447218/golden-bullet-solve-crime-backlog-uganda](http://www.newvision.co.ug/new_vision/news/1447218/golden-bullet-solve-crime-backlog-uganda)
- 3. The national newspaper, New Vision article published online on 18<sup>th</sup> April 2017, presenting a case for the need of a national airline “*The National Airline: Challenges and opportunities*” [http://www.newvision.co.ug/new\\_vision/news/1451310/national-airline-challenges-opportunities](http://www.newvision.co.ug/new_vision/news/1451310/national-airline-challenges-opportunities)
- 4. The national newspaper, New Vision article published online on 19<sup>th</sup> June 2017, presenting a case for the need of publishing incentives so as to increase the visibility of Ugandan universities “*How Ugandan universities can improve their rankings*” [http://www.newvision.co.ug/new\\_vision/news/1455817/incentives-publish-paradigm-increase-university-visibility](http://www.newvision.co.ug/new_vision/news/1455817/incentives-publish-paradigm-increase-university-visibility)
- 5. The national newspaper, New Vision article published online on 26<sup>th</sup> July 2018, an opinion on the name of the airline “*The National Airline: The name and hullabaloo about the A330neo*” [https://www.newvision.co.ug/new\\_vision/news/1482088/national-airline-hullabaloo-about-a330neo](https://www.newvision.co.ug/new_vision/news/1482088/national-airline-hullabaloo-about-a330neo)

**JOURNAL REVIEWER  
(SCOPUS INDEXED)**

- 1. Textile Research Journal
- 2. ASTM Journal of Testing and Evaluation
- 3. Journal of Physics and Chemistry of Solids
- 4. Wood Science and Technology
- 5. Composite Part B

**REFEREES**

Professor Paul Waako Vice Chancellor Busitema University, P.O Box 236, Tororo, Uganda. +256-772-468458 paulwaako@yahoo.com	Capt. Tonny Rubombora Managing Director, Eagle Air Uganda Ltd. P.O Box 7392, Kampala, Uganda. +256-772-777339	Professor J. B. Kirabira Head, Department of Mechanical Engineering Makerere University, P.O Box 7062, Kampala, Uganda. +256-703-888093 jbkirabira@cedat.mak.ac.ug
--	--	---