

# Daniel Lwanzo Paluku

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## Education

MSc in Clean Energy Processes, University FAU Erlangen-Nürnberg 2021 – 2022  
Specialization: Energy Technologies (Materials Science for energy applications)  
Erlangen, Germany

BSc in Mechanical and Energy Engineering, Kazan State Power Engineering University. 2017 – 2021  
GPA 5.0/5.0 - Red Diploma (Summa cum laude - Graduated with the highest honors)  
Advisors: Olga V. Soloveva

Summer School on Condensed Matter Physics with Princeton Center for Complex Materials 2020  
Princeton University

Diploma in Russian language 2016 – 2017  
Kazan National Research Technical University named after A.N. Tupolev – KAI  
Kazan, Russia

High School Diploma in Bio-Chemistry, Groupe Scolaire du Mont-Amba 2009 – 2015  
(Ranked 1st in Graduating Class among 200 students)  
Kinshasa, D.R. Congo

## Research Experience

Undergraduate Researcher 2020 – 2021  
Using Computational Fluid Dynamics (ANSYS) for the modelization of technological processes  
Advisor: Dr. Olga V. Soloveva

Undergraduate Research Experience 2020  
Investigated the increase use of condensate instead of highly demineralized water for waste heat boilers  
Supervisor: Prof. Denis S. Balzamor

Undergraduate Research Experience 2019  
Proposed the increase of Renewable Energy distribution in Russia  
Supervisor: Prof. Guzel B. Sayfutdinova

Undergraduate Research Experience 2018  
Contributed to the first wind farm project in the Republic of Tatarstan, Russia  
Supervisor: Prof. Nail F. Timerbaev

## Publications & Preprints

S. A. Solovev, O. V. Soloveva **D. L. Paluku**, and A. A. Lamberov. *CFD simulation of the ethylbenzene dehydrogenation reaction in the fixed bed reactor with a cylindrical catalyst of various sizes*. Chemical Product and Process Modeling, 2021.  
Link: <https://www.degruyter.com/document/doi/10.1515/cppm-2021-0002/html>

D. S. Balzamov, E. Y. Balzamova, V. V. Bronskaya, **D. L. Paluku**, G.I. Oykina, and O. S. Kharitonova. *Increased use of a condensate instead of highly demineralized water to prepare feed water for the waste heat boilers*. Conference Series: Materials Science and Engineering (MSE), 1047 012173.

Link: <https://iopscience.iop.org/article/10.1088/1757-899X/1047/1/012173>

G. B. Sayfutdinova, and **D. L. Paluku**. *Application of Renewable Energy Sources in Resource Saving Russian Power Engineering*. International Journal of Humanities and Natural Science, April 2019, 4(3): 34–37.

Link: <http://intjournal.ru/wp-content/uploads/2019/05/Mezhdunarodnyj-ZHurnal-4-3.pdf>

**D. L. Paluku**, N. F. Timerbaev. *Prospects for the development of Wind Energy in The Republic of Tatarstan*. Renewable Energy Sources: Proceedings of the All-Russian Scientific Conference with International Participation and of the XI Scientific Youth School – Moscow: MAKSS Press. December 2018, 292—296..

Link: <https://www.elibrary.ru/item.asp?id=37080369&pff=1>

## Talks & Conferences

International Anti-Conference "It's possible" at Kazan State Power Engineering University	April 2021
Seminar of graduate students of Kazan State Power Engineering University	December 2019
BEBUC Scholarship's Conference in Lausanne, Switzerland	July 2019
Moscow State University Scientific Conference on Renewable Energy Sources	December 2018
Youth Conference in Sharm El Sheikh, Egypt	November 2018
Business Conference "Russia – Africa", Ministry of Economy of the Russian Federation	March 2018
Russian-Chinese Congress of Young Entrepreneurs in Kazan, Russia	September 2017

## Awards & Honors

Best Senior Graduate of the Class of 2021 highly involved in scientific activities	2021
Top 4 Best International Students in the Russian Republic of Tatarstan for 2020 among out of approximately 8000 students.	2021
Presidential Scholarship of Kazan State Power Engineering University	2019 – 2020
Top 3 Best Students in Material Science in sophomore year among 115 students	2019
Top 5 Best Students in Applied Mechanics in sophomore year among 28 students	2019
Contest winner - Renewable Energy Sources at Moscow State University out of 74 participants	2018
Gold Medal of - 6th Russian Language International Olympiad for foreign students	2018
Scholarship of the Russian Government for Bachelor Studies in Russia	2016
BEBUC Scholarship German-Congolese NGO "fUNIKIN"	2013 – Present
COMENGA High School Media Challenge Winner, German-African Media Camp	2014

## Professional Service & Leadership

### *Workshop & Symposium Organization*

International Anti-Conference "It's possible" at Kazan State Power Engineering University 2021  
Initiated the discussion on presenting existing scientific opportunities for international students in Russia. The anti-conference has been featured by the Russian Ministry of Science and Education.

### *Membership*

Vice-President, Association of foreign students, Kazan State Power Engineering University 2019 – 2020

Spokesman of BEBUC Scholarship's External Scholars 2019 – Present  
BEBUC Scholarship is an excellence Scholarship Program supporting and mentoring young students until they become professors of Universities to renew the academic staffs in the D.R. Congo

Spokesman of the Association of Congolese Students in Kazan, Russia 2017 – 2019

Spokesman for Mont-Amba BEBUC Scholarship's Scholars, Kinshasa, D.R. Congo 2014 – 2015

### *Volunteering*

Tutor Volunteer – World Skills Competition, Kazan, Russia 2019

Tutor Volunteer – Kazan Multi-Sport exposition 2018

## Teaching

English and French Teaching appointment  
Language School Need4speak 2019 – 2020

## Communication Skills

Human Languages: Swahili (Native), French (Native), English (Fluent), Russian (Fluent), Lingala (Fluent).

Machine Languages: Python (Pytorch, JAX).