

Professor of Artificial Intelligence and Applications



# Synopsis

### Professor Abejide Ade-Ibijola

† B.Sc. Hons. (First Class Honours), Master's (Distinction in Research), PhD (Wits) † MICSIT, MIITPSA, MIAENG, MIETI, Fellow of TED, NRF-Rated

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Title	Professor
First Name	Abejide
Last Name	Ade-Ibijola
Field / Expertise	Artificial Intelligence and Applications
Primary Position	Full Professor at the University of Johannesburg
Other <sub>1</sub>	Distinguished Professor at Woxsen University
Societal Impact	Founder and Chairman at GRIT Lab Africa
Innovation Kitchen	Founder and President at Machines with Minds
Editor & Publisher	The Kingsman Academic Magazine
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2-Time 2018 100+ 90 +VC's Award Winner Dean's Award Winner Recognitions Publications

2-Time Winner  $\approx$ 1,600

South African Public Service Innovation Award Google Citations NRF-Rated



17<sub>years+</sub> Africa 11-Time

Experience Impact Awardee Africa Continental Recognition

### R405,175,824.75 or \$22,509,768.04

Secured/Contributed in Research, Innovation, Skills, and Development Funds/Value

65 M&D 2023 Overall Major T/L, R&D Awards Supervised to Completion NCEA Academic Excellence

### Top AI Professor in Africa

Google Search — First Result

### Profile

#### Background

Professor Abejide Ade-Ibijola holds a PhD in Computer Science (Artificial Intelligence — program comprehension) from the University of the Witwatersrand, Johannesburg in 2016. Prior, he had bagged a Bachelor's Honours degree (with First Class Honours) in Computer Science, and a Master's in Computer Science (with Distinction in Research) — Serious Games and Artificial Intelligence. He is currently a Full Professor of Artificial Intelligence (AI) and Applications (appointed as a full professor at the age of 36, with a professorial inauguration ceremony at the age of 38) at the Johannesburg Business School (JBS), University of Johannesburg (UJ), South Africa — becoming the first professor to be inaugurated at the JBS.

In his **17+ years of experience**, he has conducted research in AI and applications, taught several modules at all levels, and supervised 19 honours, 16 master's and six doctoral candidates to completion. Outside of academia, Abejide has worked in the software industry (across domains such as financial markets, serious games in public health and education, technology consulting, and innovations for entrepreneurship), and created several innovations for the government of South Africa.

Google search for the **Top AI professors in Africa** returns Abejide's profile as the **first result, on the first page**.

#### **Research Profile**

Abejide has **published 90+ articles** in recognised, DHET<sup>1</sup>-accredited and scopusindexed outlets on AI algorithms, and innovations for solving real-world problems. His research work has attracted **1,600+ Google citations with h-index of 15, and i10-index of 22**. His interests are as follows:

**Rule-based Artificial Intelligence Algorithms:** Design of new production rules (with formal grammars of varying re-writing strengths) for tasks such as synthetic data generation, procedural content generation, text generation,

<sup>&</sup>lt;sup>1</sup>Department of Higher Education and Training of South Africa

language recognition, program comprehension, problems and solutions generation, etc, across several application domains.

- **Applied Artificial Intelligence:** Application of existing AI tools (such as trained machine learning models, conversational AI models/platforms, etc.) to solve real-life problems, and creating new innovations from these while producing recognised research outputs.
- **Game Artificial Intelligence and Serious Games:** Design and evaluation of serious games (from gamified quizzes, to 3D immersive video games, simulations, virtual reality experiences and augmented reality, often with embedded Game Artificial Intelligence algorithms) to support the teaching/training of several topics across sectors.
- **New Algorithms and Applications:** Design of new computational algorithms such as applied graph algorithms to solve problems across diverse domains.

Abejide's research has produced several innovations for the industry, academia, and government. His work has earned him a  $C_2$ -rating from the National Research Foundation (NRF) of South Africa — certifying him as an Established Researcher with international recognition for the quality and impact of his research outputs.

#### Excellence Awards, Grants, and Funding

Abejide has won 65 major teaching, research and innovation awards and secured/contributed over **R405+ Million Rands** (or **\$22+ million US Dollars**) in funding towards research, innovation, and social development value contributions (training of youth technopreneurs, skilling entrepreneurs with Artificial Intelligence tool, and training of unemployed graduates). He is the winner of the UJ CBE Dean's Top Senior Lecturer Award 2018 (in a faculty of 338 academics), a **Two-time Winner of the UJ Vice-Chancellor's Distinguished Awards** for the Innovation of the year 2019 (Valued at R500,000.00), and Teacher Excellence 2020 (Valued at R150,000.00). Abejide is also a winner at the South Africa's Department of Public Service (DPSA) Ignite Hack Innovation Award 2018, the winner of SA Department of Communications Living 4IR Hackathon Overall Best Innovation of 2019, and the winner of Two South Africa's State IT Agency (SITA) Public Service Innovation Awards at GovTech in 2019.

In 2020, he secured software licenses for the entire UJ community, worth over **\$1.5 Billion US Dollars**.

In May 2023, he was named twice as a finalist of the: Africa Tech Leader of the Year Award and his social project (GRIT Lab Africa), for the Africa Educational Technology Award at the Africa Tech Week Awards in Cape Town, South Africa. Abejide also received the Africa Impact Award at the Deep Learning IndabaX Nigeria for the same social project (GRIT Lab Africa) in June 2023. In October 2023, Abejide won an award for the **Overall Academic Excellence in South Africa at the Nigerian Community Excellence Awards in Pretoria, South Africa.** In March 2024, he was nominated for the NSTF (The South African National Science and Technology Forum) award for an outstanding contribution to science, engineering and technology (SET) and innovation in South Africa.

He is a 3-time finalist (out 2000+ nominations) of the Africa Startup Ecosystem Builders Awards (held in Accra Ghana from 2nd to 4th October 2024); **winning two continental awards**, namely: **African Innovation Hub of the Year 2024 (with GRIT Lab Africa)**, and **African Startup Ecosystem Builder Champion of the Year 2024**.

In November 2024, Abejide won the African Tech Innovation of the Year Award (Artificial Intelligence Category) — awarded by Business Tech Africa for the Virtual Reality Courtroom Innovation — an immersive VR experience for legal education. In December 2024, Abejide was invited by the Nigerian government under the Nigerians in Diaspora initiative to Abuja to receive an Excellence Award, and he was inducted into the prestigious NIDO Africa Hall of Fame in acknowl-edgment of his remarkable contributions to society.

Abejide's career is decorated with over 100 awards and recognitions.

#### Administrative Leadership and Institutional Positions

At the JBS, Abejide is the Founder and Lead of the **Research Group on Data**, **Artificial Intelligence**, and Innovations for Digital Transformation, and the Chairperson of the Centre for Entrepreneurship's Advisory Board. He is also the **Founder and the Head of the JBS Innovation Lab** (a subset of his research group), known to produce immersive experiences (VR/AR, video games), mobile/web applications, and a range of algorithmic AI solutions. At UJ, he is a member of the **Academy of Distinguished Teachers**, he serves on the Teaching Portfolio Assessment Committee (TPAC), and he is also a member of the Senate's Teaching and Learning Committee.

Abejide is the Former Academic Director of all academic programmes (PGDips, MBAs, and DPhils) in 2022, and the Former Director of the Postgraduate Diploma Programme at the JBS (2022 to 2023). He has previously held the following positions at the University of Johannesburg: General Chair (and Editor) of the International Conference on Cyber-security and Information Systems (2017), Pioneer Head of the Technopreneurship Centre (Writer of the Charter to Senate, 2018 to 2019), Deputy Head of Department for Teaching and Learning of the Department of Applied Information Systems (2017 to 2018), Acting Head of Department of Applied Information Systems (2018), Member of Programme Committee (curriculum development) 2017 to 2019, Member of the Department Higher Degrees Committee (2017 till 2022), Member of the JBS Ethics

**Committee** (2022 till date), Member of the **Faculty Board** (2017 till date across two faculties), Member of **Faculty Research Committee** 2019 to 2022, Member of **JBS Faculty Higher Degrees Committee** (2022 till date), Member of the **University Senate** (2019 till date), Member of **NRF Review Committee** (2021), Member of the **Adjudication Committee for the Vice-chancellor's Distinguished Awards for Teaching and Learning** (2021 till date), and so on.

#### Intellectual Properties and Commercialisation

Abejide has invented several technological tools across the spectrum (virtual reality experiences, video games, Al algorithms, mobile and web applications, etc). Two notable commercialised products from his inventions are:

- Learn and Earn Mobile App: This App allows students to sell products for three companies (Tupperware, Table Charm and Avon Justine). In the 2019 academic year, 390 students used this App, generating a turnover of R3 million. This resulted in R750 000 paid out to the students in the form of commission. This App has made more returns year-on-year thereafter.
- **Teaching and Module Evaluation Web App:** This App saves the University of Johannesburg exactly R2 million rands annually in software license that was previously paid to a company in the Netherlands. The App facilitates the teaching and module evaluation for the entire UJ community, 50,000 students and about 10,000 staff members use this App.

Abejide has authored over 80 proprietary technological tools, with some currently undergoing commercialisation.

#### Innovations for the Government of South Africa

In 2022, Abejide upskilled 150 unemployed graduates in computer programming for the Education, Training and Development Programme (ETDP) — Sector Education and Training Authority (SETA). In 2023, Abejide held a consulting positions at the Chemical Industries Education & Training Authority (CHIETA), where he trained 30+ students in software development while he created two robust software applications for: the disbursement of CHIETA's yearly grants and online assessments operations of CHIETA's examination. Still in 2023, Abejide led the Hackathon team for the South African Council for Natural Scientific Professions (SACNASP) where he delivered 12 Al-driven technological innovations for service delivery.

In October 2023, he accepted a project from the **Gauteng Provincial Government** of **South Africa** to train 70 small businesses on how to use Artificial Intelligence and other digital tools to improve their businesses. This cohort graduated in April 2024, with technological skills estimated at **R27**, 685, 000.00 ( $\approx$ R28 million rands) in monthly supposed spending for these businesses, making R332, 220, 000.00 ( $\approx$ R332 million rands) in contribution of a year's scarce skills South African market worth — noting that the worth of commercialisation of these skills by these small businesses cannot be estimated.

In May 2024, Abejide led the GRIT Lab Africa team that supported the technical planning (in collaboration with the Centre of Emerging Researchers) and launch of the **South Africa National Youth Service Institute (SANSI)** at CSIR, Pretoria; and he hosted the Director General of Higher Education and Training of South Africa at the JBS Innovation Lab on the 3rd of April 2024, to establish a collaboration to solve challenges in Higher Education in South Africa and Africa at large.

In July 2024, he started a project to develop AI-embedded curricula for teaching robotics and coding across 99 schools in the Gauteng province of South Africa, via the **Mathew Goniwe School of Leadership and Governance**. In September 2024, he accepted a project from the **Office of the Deputy Minister of Higher Education of South Africa**, Dr Mimmy Gondwe, to create an AI-powered Helpdesk for the ministry — *this project has produced two tool* — one of which is a **digital human** that answers all frequently asked questions. In January 2025, Abejide contributed to the economic development strategy of the City of Johannesburg (CoJ).

#### **Footprints in Africa**

Abejide is a **Distinguished Visiting Professor** at the **University of Kigali, Rwanda**. In March 2024, he spoke on Artificial Intelligence Ethics at the **Global Entrepreneurship Congress Africa (GEC+ Africa)**, Cape Town, South Africa. He has contributed to the Kenya's Presidential Digi-talent programme (2021), and also supervised at PhD level for **Jomo Kenyatta University of Agriculture and Technology (JKUAT)**, **Nairobi, Kenya** (2018 till date). In Botswana, he has examined several master's and doctoral candidates, and given international keynote addresses at the **University of Botswana** and **BOTHO University, Gaborone, Botswana**. In September 2024, he was well received by the Vice-chancellor of the Accra Technical University (ATU), Ghana and concluded a collaboration agreement between ATU and GRIT Lab Africa.

In 2017, he was the General Chair of the 2nd International Conference on the Internet, Cyber-security and Information Systems (a collaboration with the University of Botswana, Gaborone). He is a co-organiser of the International Conference on Information Systems and Emerging Technologies, Windhoek, Namibia (2022 till date), and in April 2024, Abejide accepted to host (as the General Chair) this conference at the JBS Innovation Lab, Johannesburg Business School (JBS).

In Nigeria (his country of birth), he has supported the Nigerian Computer Society on a ministerial panel (with the Nigerian Minister for Innovation and the Minister for Education) on a workshop on Artificial Intelligence and Applications in Education. He has also given talks at Covenant University, Nasarawa State University, and mentored undergraduate students in grit and programming at twelve Nigerian universities, including University of Ibadan, Pan-Atlantic University, University of Lagos, University of Ilorin, and so on. Abejide currently has a three year memorandum of understanding with Thomas Adewumi University, Kwara State, Nigeria for student exchanges. In October 2024, he was invited by **Aare Afe Babalola**, a Nigerian billionaire and philanthropist to discuss the Artificial Intelligence, the society and collaboration. He has a footprint of mentoring young Africans across 26 African countries.

#### International Positions and Activities

Abejide is a **Distinguished Visiting Professor of Artificial Intelligence** at the School of Business, Woxsen University, Hyderabad, India (also an advisory board member of the AI Research Centre at Woxsen), and holds several academic, consulting, and advisory positions around the world. He manages a blockchain node for Bloxberg, Munich, Germany, and he is a member of the Bloxberg's Token Financial Model Advisory Board.

Recently, Abejide has given invited talks at University of Oxford, United Kingdom, Cornell University, New York, USA and at National Academies of Sciences, Engineering, and Medicine, Washington DC, USA on Artificial Intelligence and Applications. He is the partner on the **Dreamship** — **Dreamathon Project**, initiated by the Computational Design Institute (CDI), Silicon Valley, USA (2020 till date). Abejide is an external examiner at the School of Computing, University of Eastern Finland, Joensuun Tiedepuisto, Finland; and an external reviewer on Al-related research at the National Institute of Health and Care Research, University of Southampton, United Kingdom.

In December 2024, Abejide became a **Distinguished Juror** for the prestigious **Aegis Graham Bell Awards** in the AGBA Generative Al Innovation Series" — supported by Ministry of Electronics and Information Technology, Ministry of Education, Government of India, New Delhi and Department of Science & Technology, Government of India, and Australian Trade and Investment Commission (Austrade).

#### Global Mentoring of Academics in Artificial Intelligence

In recent years, Abejide has coached younger academics to success within several programmes such as the South African nGap (New Generation of Academics Programmes). In March 2024, Abejide launched a project called the **JBS GRIT Lab**  **Research Hackathon** that brings 100+ researchers together — across disciplines and the spectrum of research seniority from Junior Lecturers, to Postdoctoral Research Fellows, Senior Lecturers, Assistant Professors, Associate Professors, Full Professors, Industry Researchers, Government Researchers, and Private Investigators) — to co-ideate, co-create, and co-publish in the **applications of Artificial Intelligence to solve sustainable development goals across disciplines**. This project has researchers from around the world in countries such as (but not limited to): **Australia, Canada, China, Finland, France, Ghana, Guyana, India, Lesotho, Namibia, Nigeria, South Africa, Tanzania, United Kingdom, United States of America, and Zimbabwe.** 

#### **GRIT Lab Africa: Societal Impact Project**

Abejide is the **Founder and Chairman** of **GRIT Lab Africa** (a societal impact project for training young Africans in Grit and programming). At GRIT Lab Africa, Abejide mentors 116 young people across 38 higher institutions of learning in 11 African countries (Ghana, Kenya, Mauritius, Namibia, Nigeria, South Africa, Sudan, Tanzania, Uganda, Zambia, and Zimbabwe). At the University of Johannesburg (UJ), he currently mentors 500+ students, and has directly mentored 3000+ students in the last seven years.

In 2022, he paid out **R1**, **111**, **587.38** in wages to 33 students for work-integrated learning, while training these students to become software engineers across diverse range of technologies. This number increased to **R1**, **580**, **953.30** in 2023 and to **R2**,**782**,**128.68** in 2024. In July 2023, Abejide launched a free programming bootcamp for undergraduate students at UJ across all faculties/disciplines and this received 598 applications. He accepted and trained 477 students on this programme — *contributing an estimated* **R22**, **896**, **000**.00 and an extra **R5**, **568**, **000**.00 for 116 undergraduates across 10 other African countries (South Africa is the 11th country) *in market value* to the University of Johannesburg and 37 other universities across Africa for this scarce skills. *This bootcamp trained 570 students in 2024*, *contributing a total value of* **R27**, **360**, **000**.00.

GRIT Lab Africa has an historical reach of alumni from 26 African countries.

Abejide is the editor and publisher of **The Kingsman Academic Magazine**, a publication that showcases the technological innovation of his mentees; and he is also the publisher of **GRIT Lab Africa Opinion Series**.

#### Machines with Minds: The African Innovation Kitchen

Abejide is the Founder and President of Machines with Minds, also known as the The African Innovation Kitchen, or the "The Kitchen" for short. The Kitchen is a private technology incubation hub that is positioned to serve the entire African

continent. **The Kitchen** allows young innovators across Africa (trained by the GRIT Lab Africa social project) to: access internships, incubate technology start-ups companies, create new technologies to solve problems in their local communities, commercialise their solutions, create Al solutions for the government and private sectors, and develop state/private-sponsored social innovations to solve African problems.

The Kitchen also creates new training programmes/masterclasses to respond to the rapid changes triggered by advances in Artificial Intelligence and other fourth industrial revolution technologies. The Kitchen responds with solutions to the pain-points of governments and the private sector across Africa, most of which there are currently no institutional structures in education/industry or customised, Afro-centric solutions/contents to address them at the moment. The Kitchen is a job creation entity for GRIT Lab Africa alumni.

## Collaborators or Sponsors

