

Curriculum Vieta

General Information

Name: E. S. Elzein

Title: Assistant Professor

Address: United Kingdom, London, SW1V 2TG

Education

- **Faculty of Electrical Engineering and Computer Science, Division of Computer Science, University of Bradford, PHD in Engineering and Computer Science, UK, 2017.**

Address: Faculty of Electrical Engineering and Computer Science, University of Bradford, Bradford.

- **School of Computing, Division of Computer Science and Mathematics, University of Leeds, United Kingdom. Master of Science in Computing, 2006.**

Address: School of Computing, University of Leeds, Leeds, LS2 9JT

- **Faculty of Electrical Engineering and Computer Science, Division of Computer Science, University of Bradford, Bachelors of Engineering and Computer Science, UK, 1997.**

Address: Faculty of Electrical Engineering and Computer Science, University of Bradford, Bradford.

Taught Courses

- **Undergraduate:**

- **College of Computer Science, King Saud University; KSA.**
- **Courses:**

Teaching Visual Basic + Excel educational environment (206 CSC) for the students of the Faculty of Science,
Computer Programming Laboratory -1 (112 CSC)
Preparation Material of -Mathematics (MATH 101 - MATH | 102),
Preparation Material of - Computer Programming 2 (113 CSC) ,
Preparation Material of - Introduction to Computers (107 CSC),
Preparation of necessary programs for teaching materials, Supervision of students' projects in collaboration with the Department of Computer Science.

- **Faculty of Computing and Information Technology, King Abdul Aziz University;**
- **Courses:**

CPIS-250	Software Engineering
CPIS-312	Information and Computer Security
CPIS-462	Information Systems Applications
CPIS-465	Geographical Information Systems
CPIS-472	Data Networks Design and Management
CPIS-483	E-Systems Applications
CPIS-486	E-Business Strategies

- **College of Computing, IT University of Copenhagen, Division of Software Development, Copenhagen;**
- **Courses:**

Discrete Mathematics
User Experience of Web Programming
Functional Programming
Operating Systems Programming in C

- **Postgraduate:**

- **Faculty of Electrical Engineering and Information Systems, University of Pannonia, Hungary;**
- **Courses:**

Control theory - VEMIVIM254S
Robotics - VEMIVIM254R
Discrete and continuous dynamic systems - VEMIVIM254E
Modern Database Technologies

- **School of Information Sciences, Mediterranean University of Reggio Calabria, Italy;**
- **Courses:**

Calculus I
Calculus II and Probability Calculus
Calculus II
Probability Calculus
Chemistry
General Physics
Computer Programming
Foundation of Electrical Engineering

College Committees

Member, College of Computer Sciences and Information Systems Committee, King Saud University, 2005-2008.

Member, College of Computing and Information Technology Committee, King Abdul-Aziz University, 2009-2010.

Member, College of Computing Committee, IT University of Copenhagen, 2016- 2021.

Member, College of Electrical Engineering and Information Systems Committee, University of Pannonia, 2019-2021.

Member, College of Information Sciences Committee, Mediterranean University of Reggio Calabria, 2020-2021.

Member, College of Computer Sciences Research Center Committee, King Saud University, 205-2008.

Member, College of Computing and Information Technology Research Center Committee, King Abdul-Aziz University, 2009-2010.

Member, Evaluation Committee, College of Computer Sciences and Information Systems, King Saud University, 2005-2008.

Member, Evaluation Committee, College of Computing and Information Technology, King Abdul-Aziz University, 2009-2010.

Member, Evaluation Committee, College of Computing, IT University of Copenhagen, 2016- 2021.

Member, Evaluation Committee, College of Electrical Engineering and Information Systems, University of Pannonia, 2019-2021.

Member, Evaluation Committee, College of Information Sciences, Mediterranean University of Reggio Calabria, 2020-2021.

Departments Committees

Member, Department of Computer Sciences Design Committee, King Saud University, 2005-2008.

Member, Department of Information Systems Planning Committee, King Saud University, 2005-2008.

Member, Department of Information Engineering Teaching Committee, King Saud University, 2005-2008.

Member, Graduate Student Recruiting and Fellowship Selection Committee, Dept. of Computer Sciences, 2005-2008.

Member, Department of Computing Committee, King Abdul-Aziz University, 2009-2010.

Member, Department of Information Technology Teaching Committee, King Saud University, 2005-2008.

Member, Department of Information Technology Teaching Committee, King Saud University, 2005-2008.

Member, Department of Information Technology Curriculum Committee, King Saud University, 2005-2008.

Member, Department of Information Technology Exam Committee, King Saud University, 2005-2008.

Member, Department of Information Technology Laboratory Committee, King Saud University, 2005-2008.

Member, Department of Computing Teaching Committee, IT University of Copenhagen, 2016- 2021.

Member, Department of Computing Curriculum Committee, IT University of Copenhagen, 2016-2021.

Member, Department of Computing Exam Committee, IT University of Copenhagen, 2016- 2021.

Member, Department of Computing Laboratory Committee, IT University of Copenhagen, 2016-2021.

Member, Department of Computing Faculty Recruiting, IT University of Copenhagen, 2016- 2021.

Member, College of Electrical Engineering Teaching Committee, University of Pannonia, 2019-2021.

Member, College of Electrical Engineering and Information Systems Curriculum Committee, University of Pannonia, 2019-2021.

Member, College of Electrical Engineering and Information Systems Exam Committee, University of Pannonia, 2019-2021.

Member, College of Information Sciences Teaching Committee, Mediterranean University of Reggio Calabria, 2020-2021.

Member, College of Information Sciences Curriculum Committee, Mediterranean University of Reggio Calabria, 2020-2021.

Member, College of Information Sciences Exam Committee, Mediterranean University of Reggio Calabria, 2020-2021.

Summary

I am a Graduate of University of Bradford for 20 years. I worked in electrical engineering research over 20 years. I worked in technology research over 16 years.

General

I had worked in Computational Mathematics, in particular the physical applied areas and the theory and implementation of numerical methods and algorithms, that have wide-ranging applications in both the public and private sectors. More recently, in this era of ubiquitous computing and there has been an explosion in the number of problems that require us to understand processes by modelling them, and to use data sets that are large.

The programme I had concentrates on the overlap and synergy between these fields. This programme provided training in the tools and techniques of mathematical modelling and scientific computing, also provided students with skills for problem solving using modern techniques of applied mathematics.

-Experience with or knowledge of programming languages and operating systems; current equipment and technologies, enterprise backup and recovery procedures, system performance-monitoring tools, active directories, virtualization, HTTP traffic, content delivery, and caching (15 years).

-Experience in project management, application design and integration, and cloud computing (specifically Microsoft Azure) (15 years).

-Expertise in creating, analyzing, and repairing large-scale distributed systems (15 years).

-Experience in Programming and Simulation Programs (Fortran, Algol, C++, Staad, CAD, Java and recently Python) (15 years).

Simulations

Technically, simulation is well accepted. Among the reasons for the steadily increasing interest in simulation applications are the following:

Using simulations is generally cheaper, safer and sometimes more ethical than conducting real-world experiments. For example, supercomputers are sometimes used to simulate the detonation of nuclear devices and their effects in order to support better preparedness in the event of a nuclear explosion. Simulations can often be even more realistic than traditional experiments, as they allow the free configuration of environment parameters found in the operational application field of the final product. Examples are supporting deep water operation of the US Navy or the simulating the surface of neighbored planets in preparation of NASA missions.

Simulations can often be conducted faster than real time. This allows using them for efficient if-then-else analyses of different alternatives, in particular when the necessary data to initialize the simulation can easily

be obtained from operational data. This use of simulation adds decision support simulation systems to the tool box of traditional decision support systems.

Simulations allow setting up a coherent synthetic environment that allows for integration of simulated systems in the early analysis phase via mixed virtual systems with first prototypical components to a virtual test environment for the final system. If managed correctly, the environment can be migrated from the development and test domain to the training and education domain in follow-on life cycle phases for the systems (including the option to train and optimize a virtual twin of the real system under realistic constraints even before first components are being built).

Application domains in Simulation

There are many categorizations possible, but the following taxonomy has been very successfully used in the defense domain, and is currently applied to medical simulation and transportation simulation as well.

Analyses Support is conducted in support of planning and experimentation. Very often, the search for an optimal solution that shall be implemented is driving these efforts. What-if analyses of alternatives fall into this category as well. This style of work is often accomplished by simulysts - those having skills in both simulation and as analysts. This blending of simulation and analyst is well noted in Kleijnen.

Systems Engineering Support is applied for the procurement, development, and testing of systems. This support can start in early phases and include topics like executable system architectures, and it can support testing by providing a virtual environment in which tests are conducted. This style of work is often accomplished by engineers and architects.

Training and Education Support provides simulators, virtual training environments, and serious games to train and educate people. This style of work is often accomplished by trainers working in concert with computer scientists.

A special use of Analyses Support is applied to ongoing business operations. Traditionally, decision support systems provide this functionality. Simulation systems improve their functionality by adding the dynamic element and allow to compute estimates and predictions, including optimization and what-if analyses.

Construction Engineering

Construction engineering is a professional discipline that deals with the designing, planning, construction and management of infrastructures such as roads, tunnels, bridges, airports, railroads, facilities, buildings, dams, utilities and other projects.

Civil engineering is a related field that deals more with the practical aspects of projects. I am as a Construction engineers learned some of the design aspects similar to civil engineers as well as project site management aspects.

At the educational level, when I was a civil engineering student, I concentrated primarily on the design work which is more analytical, gearing them toward a career as a design professional. Education for construction engineers is primarily focused on construction procedures, methods, costs, schedules and personnel management. Our primary concern is to deliver a project on time within budget and of the desired quality.

Being a sub-discipline of Civil Engineering, construction Engineers apply their knowledge and business, technical and management skills obtained from their undergraduate degree to oversee projects that include bridges, buildings and housing projects. Construction Engineers are heavily involved in the design and management/ allocation of funds in these projects. They are charged with risk analysis, costing and planning.

I worked as Structural Engineering. Structural engineering is a sub-discipline of civil engineering in which structural engineers are trained to design the 'bones and muscles' that create the form and shape of man-

made structures. Structural engineers also must understand and calculate the stability, strength, rigidity and earthquake-susceptibility of built structures for buildings and nonbuilding structures.

The structural designs are integrated with those of other designers such as architects and building services engineer and often supervise the construction of projects by contractors on site. They can also be involved in the design of machinery, medical equipment, and vehicles where structural integrity affects functioning and safety.

I worked as Architectural engineering, also known as building engineering or architecture engineering. Architectural Engineering is an engineering discipline that deals with the technological aspects and multi-disciplinary approach to planning, design, construction and operation of buildings, such as analysis and integrated design of environmental systems (energy conservation, HVAC, plumbing, lighting, fire protection, acoustics, vertical and horizontal transportation, electrical power systems), structural systems, behavior and properties of building components and materials, and construction management.

From reduction of greenhouse gas emissions to the construction of resilient buildings, architectural engineers are at the forefront of addressing several major challenges of the 21st century. We apply the latest scientific knowledge and technologies to the design of buildings. Architectural engineering as a relatively new licensed profession emerged in the 20th century as a result of the rapid technological developments. Architectural engineers are at the forefront of two major historical opportunities that today's world is immersed in:

- (1) that of rapidly advancing computer-technology, and
- (2) the parallel revolution arising from the need to create a sustainable planet.

I Grant all the Thanks to Academia and to Bradford University. I would like to Thank also University of Oxford Committees.

My Experience in civil Engineering (Period 2010 – 2021) General Summary

I would like to have this opportunity to carry out and consider information regarding my experience:

I worked on water projects on the Southern South Circular Road and the East Road to Dar'iyah (period 2010-2011).

I worked overseas in a private company to support building bridges projects in the Capital City of Riyadh as a civil engineer (period 2011-2013) and I did major studies in infrastructure in the same period.

I holded Riyadh Financial City infrastructure project as a project engineer (period 2011-2014) and I prepared the estimate for the project in the same period.

I worked in King Saud University District infrastructure projects in the City of Riyadh (period 2012-2014) and I contributed to 23 projects in different locations in the same City.

I worked in Compounds Construction in a famous Firm in the City of Riyadh (period 2011) on King Salman Highway in the North of the City.

I worked in two tall Buildings (16-20 Floors) in the City of Riyadh (period 2011-2013) as a Civil Engineer.

I am working as an Architectural Engineer in a firm in the City of London building Private Compounds (period 2017-2020).

I am working now as a Civil Engineer in London for London Construction Projects in the Industrial City (North & East London) (period 2020-2022).

Books, Book Chapters Authored/Co-authored, Editor/Co-Editor of Books

- Ceceri, K., Elzein, E. (2014) Making Simple Robots, Maker Media, Inc.
- Todd, D. (2016) Fundamentals of robot technology: an introduction to industrial robots, teleoperators and robot vehicles. ISBN-13: 978-94-011-6770-3.
- Elzein, E., Weat, D., Wotton, C. (2004) Building an Electronics Laboratory, Springer Science and Business Media, New York.
- Elzein, E., Joseph, L. (2018) Robotics Programming, Springer Science Business and Media, New York. ISBN:978-1-4842-3404-4.
- Brown, M., Elzein, E. (2019) Learn robotics: build and code your own moving, sensing, thinking robots. San Francisco: No Starch Press.
- Braunl, T. Elzein, E. (1998) Embedded Robotics: Mobile Robot Design and Applications with Embedded Systems. Springer Science Business and Media, New York.
- Elzein, E., Patnaik, S., Qiao, F., Wang, J. (2018) Recent Developments in Mechatronics and Intelligent Robotics, Springer International Publishing. ISBN: 978-3-319-65977-0.
- Bird, J., Elzein, E. (2010) Engineering Mathematics. Elsevier Publisher. ISBN-13:978-1-85-617697-2.
- Elzein, E., Langtangen, H. Ling, H. (2009) Programming for Computations MATLAB/Octave. Springer International Publishing. ISBN: 978-3-319-32451-7.
- Elzein, E. (2015) MATLAB Creating Graphical User Interfaces, The MathWorks Publisher.
- Azarm, S., Balachandran, B., Duncan, J., Elzein, E., Herold, K., Magrab, E. and Walsh, G. (2011) An Engineering Guide to MATLAB with Applications from Mechanical, Aerospace, Electrical, Civil, and Biological Systems Engineering. New Jersey: Person Education Publisher. ISBN13:978-0-13-199110-1.
- Elzein, E., Katsikis, V. (2012) MATLAB—A Fundamental Tool for Scientific Computing and Engineering Applications. In Tech Publisher. ISBN978-953-51-0750-7.
- Elzein, E., (2009) Fundamentals of the Java Programming Language, Java SE 6. Oracle and/or its affiliates. Sunmicrosystems Publisher.
- Elzein, E., Neuburg, M. (2018) IOS 12 Programming Fundamentals with Swift, O'ReillyMedia. ISBN: 978-1-492-04455-0.
- Edrminister, S., Elzein, E. (2003) Schaum's Easy Outline of Electromagnetics: A Crash Course, New York: McGrawHill.
- Edrminister, S., Elzein, E. (1998) Schaum's Outline of Electromagnetics. New York: McGraw-Hill.
- Elzein, E., Maxum, B. (2005) Field Mathematics for Electromagnetics, Photonics, and Materials Science. Bellingham, WA: SPIE Press.
- Elzein, E., Nasar, S. (2008) 2000 Solved Problems in Electromagnetics. Raleigh, NC: SciTech Publishing.
- Elzein, E., Schnidt, R. (2008) Electromagnetics Explained. San Diego, CA: Elsevier.
- Elzein, E., Schey, H., (2005) That: An Informal Text on Vector Calculus. 4th Ed. New York: WW. Norton.
- Cheng, D. Elzein, E. (1999) Field and Wave Electromagnetics. 2nd ed. Upper Saddle River, New Jersey: Prentice Hall.
- Elzein, E., Griffiths, D. (1999) Introduction to Electrodynamics. 3rd Ed., Upper Saddle River, New Jersey: Benjamin Cummings.
- Elzein, E., Hayt, W. and Buck, J. (2006) Engineering Electromagnetics. 7th ed. New York: McGraw-Hill.
- Elzein, E., Hirose, A. and Lonngren, K. (. Introduction to Wave Phenomena. Melbourne, Florida: Krieger, 2002.

- Elzein, E., Fleisch, D. and Kraus, J. (1999) Electromagnetics. 5th ed. New York: McGraw-Hill.
- Duzzer, J., Elzein, E., Ramo, S. and Whinnery, J. (1999) Fields and Waves in Communication Electronics. 3rd ed. New York: Wiley.
- Elzein, E., Rao, N. (2004) Elements of Engineering Electromagnetics. 6th ed. Upper Saddle River, New Jersey: Prentice Hall.
- Elzein E., Sadiku, M. (2007) Elements of Electromagnetics. 4th ed., New York: Oxford University Press.
- Elzein, E., Ulaby, F. (2006) Fundamentals of Applied Electromagnetics. 5th ed. Upper Saddle River, New Jersey: Prentice Hall.
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- Chapman, S. Elzein, E. (2002) MATIAB Programming for Engineers. Cincinnati, Ohio: Brooks/Cole-Thomson Learning.
- Daku B. Elzein, E. (2006) MATIAB Tutorial CD: Learning MATIAB SuperFast, Hoboken, NJ: John Wiley & Sons.
- Elzein, E., Etter, D. (2005) et al Introduction to MATIAB 7, Upper Saddle River, NJ: Prentice Hall.
- Davis, T., Elzein, E. and Sigmon K. (2005) MATIAB Primer. 7th ed. Boca Raton, FL: CRC Press.
- Cohen, D., Elzein, E. (2001) Demystifying Electromagnetic Equations. Bellingham, Washington: SPIE.
- Collin, R., Elzein, E. (1999) Field Theory of Guided Waves. 2nd ed. Piscataway, New Jersey: IEEE Press.
- Collin, R., Elzein, E. (2001) Foundations for Microwave Engineering. 2nd ed. Piscataway, New Jersey: IEEE Press.
- Elzein, E., Hansen, T. and Yaghjian, A. (1999) Plane Wave Theory of Time-Domain Fields. Piscataway, New Jersey: IEEE Press.
- Elzein, E., Harrington, R. (1999) Field Computation by Moment Methods. Piscataway, New Jersey: IEEE Press.
- Elzein, E., Harrington, R. F. Time-Harmonic Electromagnetic Fields. Piscataway, New Jersey: IEEE Press.
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- Elzein, E., Jackson, J. (1998) Classical Electrodynamics. 3rd ed. New York: Wiley.
- Elzein, E. and Jin, J. (2002) The Finite Element Method in Electromagnetics. 2nd ed. New York: Wiley.
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- Cheng, D., Elzein, E. (1999) Field and Wave Electromagnetics 2nd edition, Prentice-Hall.
- Buck, J., Elzein, E., Hayt, W. (2001) Engineering Electromagnetics 6th edition, McGraw-Hill.
- Elzein, E., Rao, N. (2000) Elements of Engineering Electromagnetics 5th edition, Prentice-Hall.
- Elzein, E., Hirose, A. and Lonngren, K. (2002) Introduction to Wave Phenomena, Krieger.
- Elzein, E., Ulaby, F. (2001) Fundamentals of Applied Electromagnetics, Prentice-Hall.
- Elzein, E., Jackson, J. (1998) Classical Electrodynamics 3rd edition, John Wiley.
- Elzein, E., Marhefka, R., Kraus, J. (2002) Antennas 3rd edition, McGraw-Hill.
- Elzein, E., Kraus, J. (1997) Electromagnetics 2nd edition, Mc Graw-Hill.
- Duzer, T., Elzein, E., Ramo, S. and Whinnery, J. and (1994) Fields and Waves in Communication Electronics, 3rd edition, John Wiley.
- Balanis, C., Elzein, E. (1997) Antenna Theory 2nd edition, J. Wiley.
- Elzein, E., Hansen R. (1997) (ed.), Array Theory and Practice, vol. 2, Academic Press.
- Blanchet, G., Charbit, M. and Elzein, E. (2001) Digital signal and image processing using MATLAB. ISTE Publisher.
- Elzein, E., Manolakis, D., Proakis, J. (1999) Digital Signal Processing: Principles, Algorithms, and Applications 3rd edition. New Jersey: Prentice-Hall International. ISBN: 0-13-3TM33fl-cl.

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- Bracewell, R., Elzein, E. (1999) The Fourier Transform and Its Applications, 2nd ed., McGraw -Hill, New York.
- Brown, R., Elzein, E. (1999) Introduction to Signal Analysis and Filtering, Wiley, New York.
- Burrus, C., Elzein, E. and Parks, T. (2008) DFT/FFT and Convolution Algorithms, Wiley, New York.
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- Institute of Engineering Research, "Engineering Design and Manufacturing Research Laboratory," 50,000 GBP, 2005.
- IT University Research Institute, "A Strategy for Engineering Solving Problems," 5,000 GBP, 2006.
- Institute of Technology, "Understanding of 2D CAD Models," 17,000 GBP, 2013.
- National Science Institute, "Information Systems Bridging the Gap", 2017.
- BP Energy Company, "A Design for Energy Industries: Applications to Oil Pumps," 10,600 GBP, 2017.
- IBM London, "Electrical Engineering Design for Manufacturing" 38,000 GBP, 2014.
- IEEE Associate, Algorithms for Data Science, Research, 9000 GBP, 2019.
- IEEE Associate, Arduino Robotic Project, Research, 9000 GBP, 2019.
- IEEE Associate, Artificial Intelligence for Robotics, 9000 GBP, Research, 2019.
- IEEE Associate, Computer Vision, Research, 9000 GBP, 2019.
- IEEE Associate, Big Data and Business Analytics, Research, 9000 GBP, 2019.
- IEEE Associate, Computer Age Statistical Inference, 9000 GBP, Research, 2019.
- IEEE Associate, CCNA Data Center, Report, 9000 GBP, 2019.
- IEEE Associate, CCIE Routing and Switching v5.1 Foundation, 9000 GBP, Report, 2019.
- IEEE Associate, Developing 2D Games with Unity, Research, 9000 GBP, 2019.
- IEEE Associate, Foundation of Statistical Algorithms, Research, 9000 GBP, 2019.
- IEEE Associate, Fundamentals of Cellular Network Planning and Optimization, Research, 9000 GBP, 2019.
- IEEE Associate, GPRS in Practice, Research, 9000 GBP, 2019.
- IEEE Associate, Introduction to Computing and Programming using Python, Research, 9000 GBP, 2019.
- IEEE Associate, Learn Unity3D Programming with Unity Script, Research, 9000 GBP, 2019.
- IEEE Associate, Learn Business Analytics in SAS and R, Research, 9000 GBP, 2019.
- IEEE Associate, Learning Robotics using Python, Research, 9000 GBP, 2019.
- IEEE Associate, Machine Learning in Java, Research, 9000 GBP, 2019.
- IEEE Associate, Learning Unity 2D Game Development by Example, Research, 9000 GBP, 2019.
- IEEE Associate, Machine Learning with R, Research, 9000 GBP, 2019.
- IEEE Associate, Machine Learning for Absolute Beginners, Research, 9000 GBP, 2018.
- IEEE Associate, Natural Computing Algorithms, Research, 9000 GBP, 2018.
- IEEE Associate, Network Exploration and Security Auditing, Research, 9000 GBP, 2018.
- IEEE Associate, Riemannian Computing in Computing Vision, Research, 9000 GBP, 2018.
- IEEE Associate, Qualitative Evaluation of Systems, Research, 9000 GBP, 2018.
- IEEE Associate, R Studio for R Statistical Learning, Research, 9000 GBP, 2018.
- IEEE Associate, Sentic Computing, Research, 9000 GBP, 2018.
- IEEE Associate, Machine Design, Research, 9000 GBP, 2018.

- IEEE Associate, Jython: Python for the Java Platform, Research, 9000 GBP, 2018.
- IEEE Associate, The Intelligent Web, Research, 9000 GBP, 2018.
- IEEE Associate, Solid State Power Electronics, Research, 9000 GBP, 2018.
- IEEE Associate, Vacuum Tube rectifiers, Research, 9000 GBP, 2018.
- IEEE Associate, Practical Amplifier Diagrams, Research, 9000 GBP, 2018.
- IEEE Associate, Vacuum Tube Design, Research, 9000 GBP, 2018.
- IEEE Associate, Nuclear Reactor Theory, Research, 9000 GBP, 2018.
- IEEE Associate, Linear Integrated Circuits, Research, 9000 GBP, 2018.
- IEEE Associate, Antenna, Research, 9000 GBP, 2018.
- IEEE Associate, Autonomous Vehicle Readiness Index, Research, 9000 GBP, 2018.
- IEEE Associate, Design and Architecture for Signal and Image Processing, Research, 9000 GBP, 2018.
- IEEE Associate, Open-Source Robotics and Process Control, Research, 9000 GBP, 2018.
- IEEE Associate, Parallel Robotic Machine Tools, Research, 9000 GBP, 2017.
- IEEE Associate, Practical Artificial Intelligence, Research, 9000 GBP, 2017.
- IEEE Associate, Game Design, Research, 9000 GBP, 2017.
- IEEE Associate, Designing Autonomous Mobile Robot, Research, 9000 GBP, 2017.
- IEEE Associate, Governing Lethal Behavior in Autonomous Robots, Research, 9000 GBP, 2017.
- IEEE Associate, Mixed Reality and Human-Robot Interaction, Research, 9000 GBP, 2017.
- IEEE Associate, Learning Robotic Process Automation, Research, 9000 GBP, 2017.
- IEEE Associate, Disassembly Automation, Research, 9000 GBP, 2017.
- Virtual Reality, Research, 9000 GBP, 2017.
- IEEE Associate, Probability and Information: An Integrated Approach, Research, 9000 GBP, 2017.
- IEEE Associate, CCNP Routing and Switching, Report, 9000 GBP, 2016.
- IEEE Associate, Clojure Data Structure and Algorithms, Research, 9000 GBP, 2016.
- IEEE Associate, Applied Linear Statistics Models, Research, 9000 GBP, 2015.
- IEEE Associate, Project Management Checklists, Research, 9000 GBP, 2015.
- IEEE Associate, Embedded Systems, Research, 9000 GBP, 2015.
- IEEE Associate, Automatic Control Systems, Lecture Notes, Report, 9000 GBP, 2014.
- IEEE Associate, C++ How to Program, Lecture Notes, 9000 GBP, 2013.
- IEEE Associate, Object Oriented Programming in C++, Lecture Notes, 9000 GBP, 2013.
- IEEE Associate, Data Communication and Networking, Research, 9000 GBP, 2013.
- IEEE Associate, Digital Computer Fundamentals, Research, 9000 GBP, 2014.
- National Science Institute, "Robotics Equipment for Research on Assistive Intelligence," 60,000 GBP, 2016.
- IBM Technology, Inc., "Design of Electronics for manufacturing," 70,000 GBP, 2018.
- IATA Academy, "Engineering Design Education and Research," 35000 GBP, 2019.
- ASME, "Product Design and Manufacturing of Products" 40,000 GBP, 2019.
- ASME, "Product Development and Prototyping" 40,000 GBP, 2020.
- ASME, "Cars Mechanical Manufacturing Details for Machine Design Education" 6000 GBP, 2020.
- National Instruments, "Teaching Automation and Control", 28000 GBP, 2020.
- National Science Institute, "Process for Rapid Product Design and Evaluation," 300,000 GBP, 2020.
- National Science Foundation, "Collaborative Research: Architecting Design Repositories – Product Modeling, Exchange, and Reuse," 400,000 GBP, 2021.
- Ford Motor Company, Center of Excellence, "DTEACH," 10,000 GBP, 2021.
- Ford Motor Company, Center of Excellence, "EDI," 7,000 GBP, 2021.
- Ford Motor Company, Center of Excellence, "Faculty Development Grant," 7000 GBP, 2021.
- Ford Motor Company, Center of Excellence, "Equipment and Facilities Grant," 60,000 GBP, 2021.
- Ford Motor Company, Center of Excellence, "DTEACH" 20,000 GBP, 2021.
- ASME, "Machine Design Robotics" 50000 GBP, 2021.
- Ada ravenstar code archetypes for component-based development, 2018.
- An integrated framework for multiprocessor,

- multimoded real-time applications, 2018.
- ASME, Integrating middleware for timely reconfiguration of distributed soft real-time systems with ada DSA, 20000 GBP, 2018.
- ASME, Source code as the key artifact in requirement-based development: the case of ada 2012, 20000 GBP, 2018.
- IEEE, Handling synchronization requirements under separation of concerns in model-driven component-based development, 20000 GBP, 2018.
- IEEE, An approach to model checking ada programs, 20000 GBP, 2018.
- IEEE, Improving regression testing in continuous integration development environments, 20000 GBP, 2018.
- ASME, Random testing of compilers' performance based on mixed static and dynamic code comparison, 20000 GBP, 2018.
- ASME, Grammarinator: a grammar-based open source fuzzer, 20000 GBP, 2018.
- ASME, Property-based testing for the robot operating system, 20000 GBP, 2018.
- ASME, Dynamic mutant subsumption analysis using LittleDarwin, 20000 GBP, 2018.
- ASME, Hybrid monkey testing: enhancing automated GUI tests with random test generation, 20000 GBP, 2018.
- IEEE, Using quality of service bounds for effective multi-objective software architecture optimization, 20000 GBP, 2018.
- ASME, An integrated tool for trade-off analysis of quality-of-service attributes, 20000 GBP, 2018.
- IEEE, Model-based dynamic QoS-driven service composition, 20000 GBP, 2018.
- ASME, Quantitative analysis of distributed randomized protocols, 20000 GBP, 2018.
- ASME, Model checking software with well-defined APIs: the socket case, 20000 GBP, 2018.
- ASME, Echo: a practical approach to formal verification, 20000 GBP, 2018.
- ASME, LearnLib: a library for automata learning and experimentation, 20000 GBP, 2018.
- IEEE, Toward a formal model for component interfaces for real-time systems, 20000 GBP, 2018.
- ASME, An approach to the pervasive formal specification and verification of an automotive system: status report, 20000 GBP, 2018.
- ASME, Requirements of an integrated formal method for intelligent swarms, 20000 GBP, 2018.
- IEEE, Multilevel coarse-to-fine-grained prioritization for GUI and web applications, 20000 GBP, 2017.
- ASME, EventFlowSlicer: goal-based test generation for graphical user interfaces, 20000 GBP, 2017.
- IEEE, Model-based testing of stochastic systems with IOCO theory, 20000 GBP, 2017.
- ASME, Development and maintenance efforts testing graphical user interfaces: a comparison, 20000 GBP, 2017.
- IEEE, Model-driven test case design for model-to-model semantics preservation, 20000 GBP, 2017.
- IEEE, A test model for graph database applications: an MDA-based approach, 20000 GBP, 2017.
- ASME, Concurrent software testing in practice: a catalog of tools, 20000 GBP, 2017.
- IEEE, Bayesian concepts in software testing: an initial review, 20000 GBP, 2017.
- ASME, How the crowd impacts commercial applications: a user-oriented approach, 20000 GBP, 2017.
- IEEE, iTest: testing software with mobile crowdsourcing, 20000 GBP, 2017.
- IEEE, SmarTHR: a resume query and management system based on semantic web, 20000 GBP, 2017.
- IEEE, A novel multilayered context awareness technology for internetware evolution, 20000 GBP, 2017.
- IEEE, Estimating the dynamic performance of composed services: a probability theory-based approach, 20000 GBP, 2017.
- IEEE, Monitoring conversational web services, 20000 GBP, 2016.
- ASME, Towards recovering the broken SOA triangle: a software engineering perspective, 20000 GBP, 2016.
- IEEE, A service-based infrastructure for advanced logistics, 20000 GBP, 2016.
- IEEE, Session details: Component ecosystem modeling and evolution, 20000 GBP, 2016.

- ASME, Dependency management for the eclipse ecosystem: eclipse p2, metadata and resolution, 20000 GBP, 2016.
- ASME, Trends in Robotics and Automation in Construction, 20000 GBP, 2016.
- ASME, New Fuzzy-based Retinex Method for the Illumination Normalization of Face Recognition, 20000 GBP, 2016.
- ASME, Robust Visual Control of Parallel Robots under Uncertain Camera Orientation, 20000 GBP, 2016.
- ASME, Micrometre Scale Performances of Industrial Robot Manipulators, 20000 GBP, 2016.
- ASME, Image Jacobian Matrix Estimation Based on Online Support Vector Regression, 20000 GBP, 2016.
- ASME, An Evolutionary Computational Approach to Humanoid Motion Planning, 20000 GBP, 2016.
- ASME, Adaptive Tracking and Obstacle Avoidance Control for Mobile Robots with Unknown Sliding, 20000 GBP, 2016.
- ASME, Face Recognition using Simplified Probabilistic Linear Discriminant Analysis, 20000 GBP, 2016.
- ASME, A Visual Navigation Method of Mobile Robot Using a Sketched Semantic Map, 20000 GBP, 2016.
- ASME, Formation Control and Obstacle Avoidance for Multiple Robots Subject to Wheel-Slip, 20000 GBP, 2016.
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- ASME, Supervisory Adaptive Network-Based Fuzzy Inference System (SANFIS) Design for Empirical Test of Mobile Robot, 20000 GBP, 2016.
- ASME, A Ground Experiment System of a Free-floating Robot for Fine Manipulation, 20000 GBP, 2016.
- ASME, An Adaptive Three-Dimensional Nonlinear Path Following Method for a Fix-Wing Micro Aerial Vehicle, 20000 GBP, 2016.
- ASME, A Special Unique Solution Case of the Perspective-three-point Problem for External Parameter Calibration of an Omnidirectional Camera, 20000 GBP, 2016.
- ASME, New Method for Tuning Robust Controllers Applied to Robot Manipulators, 20000 GBP, 2016.
- ASME, Modelling and Experimental Evaluation of a Static Balancing Technique for a new Horizontally Mounted 3-UPU Parallel Mechanism, 20000 GBP, 2016.
- ASME, Evaluative Experiments of a Fellow Passenger Robot Using a Driving Simulator, 20000 GBP, 2016.
- ASME, A Service-Oriented Framework for the Development of Home Robots, 20000 GBP, 2016.
- ASME, Simultaneous Blind Separation and Recognition of Speech Mixtures Using Two Microphones to Control a Robot Cleaner, 20000 GBP, 2016.
- ASME, Improving Language Models in Speech-Based Human-Machine Interaction, 20000 GBP, 2016.
- ASME, Interactive and Audience Adaptive Digital Signage Using Real-Time Computer Vision, 20000 GBP, 2015.
- ASME, Scalable Task Assignment for Heterogeneous Multi-Robot Teams, 20000 GBP, 2015.
- ASME, Geometrical Derivation of Differential Kinematics to Calibrate Model Parameters of Flexible Manipulator, 20000 GBP, 2015.
- ASME, Gait-based Quadruped Robot Planar Hopping Control with Energy Planning, 20000 GBP, 2015.
- ASME, A General Contact Force Analysis of an Under-actuated Finger in Robot Hand Grasping, 20000 GBP, 2015.
- ASME, Adaptive Torque and Position Control for a Legged Robot Based on a Series Elastic Actuator, 20000 GBP, 2015.
- ASME, The Local Definability of Robotic Largescale Knowledge Based on Splitting, 20000 GBP, 2015.

- IEEE, Fast Segmentation of Colour Apple Image under All-weather Natural Conditions for Vision Recognition of Picking Robots, 20000 GBP, 2015.
- IEEE, Carrier Attitude Adjustment Strategy of a Space Robot for On-orbit Detection, 20000 GBP, 2015.
- IEEE, Research on a Micro Flip Robot that Can Climb Stairs, 20000 GBP, 2015.
- IEEE, The Pose Estimation of Mobile Robot Based on Improved Point Cloud Registration, 20000 GBP, 2015.
- IEEE, The Pose Estimation of Mobile Robot Based on Improved Point Cloud Registration, 20000 GBP, 2015.
- IEEE, Design and Development of a Hand Exoskeleton Robot for Active and Passive Rehabilitation, 20000 GBP, 2015.
- IEEE, A Precise Method for Cloth Configuration Parsing Applied to Single-arm Flattening, 20000 GBP, 2015.
- IEEE, Type Synthesis of Fully-decoupled Three rotational and One-translational Parallel Mechanisms, 20000 GBP, 2015.
- IEEE, Applications of Chaotic Dynamics in Robotics, 20000 GBP, 2015.
- ASME, Motion and Walking Stabilization of Humanoids Using Sensory Reflex Control, 20000 GBP, 2015.
- ASME, A New Path Generation Algorithm Based on Accurate NURBS Curves, 20000 GBP, 2015.
- ASME, A Region-specific Hybrid Sampling Method for Optimal Path Planning, 20000 GBP, 2015.
- ASME, Enhancement of Partial Volume Correction in MR-Guided PET Image Reconstruction by Using MRI Voxel Sizes, 20000 GBP, 2015.
- IEEE, Big IoT Data Analytics: Architecture, Opportunities, and Open Research Challenges, 20000 GBP, 2015.
- IEEE, Weight-perception-based fixed and variable admittance control algorithms for unimanual and bimanual lifting of objects with a power assist robotic system, 20000 GBP, 2015.
- IEEE, Research on the operational reliability system control methodology and its application for aerospace mechanism, 20000 GBP, 2015.
- IEEE, Integral sliding mode-based formation control of multiple uncertain robots via nonlinear disturbance observer, 20000 GBP, 2015.
- IEEE, Robot manipulator identification based on adaptive multiple-input and multiple-output neural model optimized by advanced differential evolution algorithm, 20000 GBP, 2015.
- ASME, An automatic shoe-groove feature extraction method based on robot and structural laser scanning, 20000 GBP, 2015.
- ASME, Differential-drive mobile robot control using a cloud of particles approach, 20000 GBP, 2015.
- ASME, Differential-drive mobile robot control using a cloud of particles approach, 20000 GBP, 2015.
- ASME, Polymer filament-based in situ microrobot fabrication using magnetic guidance, 20000 GBP, 2015.
- ASME, A dynamic zone estimation method using cumulative voxels for autonomous driving, 20000 GBP, 2015.
- ASME, Robust entry guidance using linear covariance-based model predictive control, 20000 GBP, 2015.
- ASME, Design of a transformable mobile robot for enhancing mobility, 20000 GBP, 2015.
- ASME, Optimal grasp planning for a dexterous robotic hand using the volume of a generalized force ellipsoid during accepted flattening, 20000 GBP, 2015.
- ASME, Real-time RGB-D image stitching using multiple Kinects for improved field of view, 20000 GBP, 2015.
- ASME, Manipulator motion planning using flexible obstacle avoidance based on model learning, 20000 GBP, 2015.
- ASME, Sigmoid transition approach of the central pattern generator-based controller for the snake-like robot, 20000 GBP, 2015.

- ASME, Clustering-based task coordination to search and rescue teamwork of multiple agents, 20000 GBP, 2015.
- ASME, Research on satellite selection algorithm in ship positioning based on both geometry and geometric dilution of precision contribution, 20000 GBP, 2015.
- ASME, Robust exponential point stabilization control of the high-speed underactuated unmanned marine vehicle with model asymmetry, 20000 GBP, 2015.
- ASME, Minimally actuated hyper-redundant robots: Motion planning methods based on fractals and self-organizing systems, 20000 GBP, 2015.

Graduate/ Undergraduate Research

- Responsible Governance of Machine Vision Technologies, 2019.
- Static Verification of Robotic Applications, University of York, 2018.
- Surgical Vision - developing techniques for efficacious navigation during robot-assisted operations, Imperial College London, 2018.
- Sky Transport Autonomous Robot embedding into a drone flight control system the machine intelligence to perform
- autonomous safe landings based on image processing of the ground below, 2018.
- Safe Multi-Agent Reinforcement Learning for Autonomous Robotic Teams.
- Robotics and Autonomous Systems, University of Heriot-Watt, 2018.
- Robotic discovery of new inorganic materials, University of Liverpool, 2018.
- Robotic disassembly as a key enabler of remanufacturing, University of Birmingham, 2018.
- Natural language generation for social robotics, University of Glasgow, 2018.
- Multimodal active sensing and perception for autonomous intelligent collaborative and assistive robots, University of Bath, 2018.
- Intelligent Games and Games Intelligence - University of York, University of Queens Mary,
- Human-robot interaction for oilfield drilling applications, Theses, University of Glasgow, 2018.
- Control of robotic manipulators for nuclear decommissioning applications, University of Lancaster, 2018.
- Cognitively Motivated Concept Representations for Robotics, London, 2018.
- Characterization of Hydrogen Explosion Safety, University of Leeds, 2018.
- Accountable autonomy of software agents, University of Aberdeen, 2018.
- Complex Norm Synthesis via Deep Learning, University of Aberdeen, 2018.
- Explainable Autonomous AI Systems, University of Aberdeen, 2018.
- Integrating structured knowledge with Machine Learning Representations, University of Aberdeen, 2018.
- Topological methods for image recognition, University of Aberdeen, 2018.
- Fast, reliable and secure wireless IoT chaos-based communication, University of Aberdeen, 2018.
- The mathematics behind the smartness of neural networks, University of Aberdeen, 2018.
- A Mathematical Framework for Optimization and Control over Networks, Arizona State University, 2018.
- The role of shadows in 3D vision: a computational approach, Aston University, 2018.
- Adaptive Predictive Simulation Modelling Using the Digital Twin Paradigm, Bournemouth University, 2018.
- Peer to Peer Distributed Business Process Management, Bournemouth University, 2018.
- Repurposing an API for oil drilling simulation software, Bournemouth University, 2018.
- Machine learning techniques for the optimization and simulation of Metal Additive Layer Manufacturing process chains, Cardiff University, 2017.

- Service-oriented Information Modelling and Analytics of Sensor Data for Designing Smart Thermal Desorption Products, Cardiff University, 2017.
- Statistical characterization of brain tissue microstructure with diffusion magnetic resonance imaging, Cardiff University, 2017.
- Edge Computing for Internet of Things, Cardiff University, 2017.
- Internet of Things Infrastructure for Sustainable Wildlife Conservation, Cardiff University, 2017.
- Computational Neuroscience: Machine Learning and Nonlinear Signal Processing, Coventry University, 2017.
- Smart Grid meets the Internet of Things, Coventry University, 2017.
- Additive Manufactured Antennas and Arrays for 5G Automotive Communication Technologies, Cranfield University, 2017.
- Advanced Image Processing Techniques for Complex Multidimensional Imaging Data, Durham University, 2017.
- 2D and 3D Computational Imaging Through Turbulence, Heriot-Watt University, 2017.
- Mathematical Modelling, Analysis & Computation, Heriot-Watt University, 2017.
- Developing the Modelling, Verification and Deployment of Data-aware Systems, Imperial College, 2017.
- Medical Robotics, Imperial College London, 2017.
- Statistics and Machine Learning at Imperial and Oxford, Imperial College London, 2017.
- Safe and Trusted Artificial Intelligence, Imperial College London, 2017.
- Radar Engineering: RF-system design and/or signal-processing, Institute for Communications Engineering and RF-Systems, 2016.
- Evolutionary Robotics: using evolution to generate robust robot control systems, Keele University, 2016.
- Big Data Modelling the Knowledge Economy, Kingston University, 2016.
- Human Motion Analysis using Computer Vision and Deep Learning, Kingston University, 2016.
- Real Time Intelligent Systems for Supporting People Living with and Beyond Cancer, Kingston University, 2016.
- Two-stream Machine Learning Architecture based on Deep Learning and HMM for Person Recognition in Images/Videos, Kingston University, 2016.
- Massive MIMO and large Intelligence Surfaces for 5G and Beyond 5G networks, Loughborough University, 2016.
- Social-aware mobile system optimization based on machine learning, Loughborough University, 2016.
- Interactive visualization for understanding big data, Monach University, 2017.
- Automatic micro and mixed emotion recognition system for Human-robot interaction, Northumbria University, 2016.
- Formal methods for modelling and analysis of protocols and algorithms for swarm robotics, Northumbria University, 2016.
- Resource Allocation in Cloud Computing, Queen Mary University, 2016.
- Network Design Optimisation, Queen Mary University, 2016.
- Developing Theoretical Frameworks to Solve Outstanding Network Theory and Data Science Algorithms, Queen Mary University, 2016.
- Stable deep neural network architectures, Queen Mary University, 2016.
- Statistical Applied Mathematics, University of Bath, 2016.
- Adversarially-robust neural networks for cyber security, University of Birmingham, 2016.
- Adaptivity and machine learning techniques for PDE problems with uncertain inputs, University of Birmingham, 2016.
- Intelligent Big Data Analytics for Manufacturing and Engineering Applications, University of Bradford, 2016.
- Planning and Design of Distribution Networks with Integration of Smart Grid Technologies, University of Bradford, 2016.

- Computer based face analysis for automated and efficient perception of faces, University of Bradford, 2016.
- Development of Computer Vision System for Remote sensing and processing of satellite images, University of Bradford, 2016.
- Swarm Robotics for Environmental Monitoring, University of Bristol, 2016.
- IoT Security and Privacy, University of Edinburgh, 2016.
- Data-structures for maintain non-dominated sets on high performance and distributed systems, University of Exeter, 2016.
- Learning-based Anomaly Detection and Prediction in 5G Mobile Networks, University of Exeter, 2016.
- Data compression at the quantum limit for big-data machine learning applications, University of Glasgow, 2016.
- Reinforcement learning in Closed-loop data science, University of Glasgow, 2016.
- Developing AI approach to autonomous dismantling/packaging of nuclear installations, University of Leeds, 2016.
- Deep Feature Learning for Distributed Rehabilitation Robots with Wearable Tactile Sensing, University of Liverpool, 2016.
- Optimal search strategies for automated, robotic material discovery, University of Liverpool, 2016.
- Automatic Activity Analysis, Detection and Recognition, University of Manchester, 2016.
- Automatic Detection and Repair of Software Vulnerabilities in Unmanned Aerial Vehicles, University of Manchester, 2016.
- Mathematical Modelling, Analysis & Computation, University of Edinburgh, 2016.
- Robotics and Autonomous Systems, University of Edinburgh, 2016.
- Automatic Emotion Detection, Analysis and Recognition, University of Manchester, 2016.
- Component-based Software Development, University of Manchester, 2016.
- Machine Learning and Their Application to Vision and Language Understanding, University of Manchester, 2016.
- Mathematical models for concurrent systems, University of Manchester, 2016.
- Using Program Synthesis for Program Repair in IoT Security, University of Manchester, 2016.
- Fast and Reliable Algorithms for High-Performance Numerical Linear Algebra, University of Manchester, 2016.
- Mathematical modelling of (perovskite) solar cells, University of Portsmouth, 2016.
- Automated Verification of Web Assembly Programs, University of Reading, 2016.
- Computer Vision and Remote Sensing – Terrain Feature Classifications, University of Reading, 2016.
- The Artificial Intelligence Enabled Smart LED Lighting for Eco and Assisted Living Space, University of Reading, 2016.
- Towards Conversational Recommender Systems In the Era of Big Data, University of Reading, 2016.
- Smart and Soft Sensors: developing new sensing technologies for application in space, University of Salford, 2016.
- The application of soft robotics for the next generation of robot used for space exploration and astronaut assistance, University of Salford, 2016.
- Machine Learning Methods for Autonomous Robot Pipe Inspection, University of Sheffield, 2016.
- Reliable Response and Behaviour of Autonomous Robots, University of Sheffield, 2016.
- Speech and Language Technologies and Their Applications, University of Sheffield, 2016.
- Private Data Integration and Sharing: Algorithms and Platforms, University of Southampton, 2016.
- Automated crack detection using image processing, University of Strathclyde, 2016.
- Human-centric AI for engineering design changes in the nuclear industry, University of Strathclyde, 2016.
- PhD Studentship Opportunity in Enhancing Cyber Security Information Sharing, University of Surrey, 2016.

- X-ray Imaging for Industrial Applications, University of Warwick, 2016.
- Autonomous cooperation of bio-inspired adaptable lightweight mobile robots, University of York, 2016.

Work Experience

- I worked in many International Projects as follows:
 - I worked on many Research Funded Projects (150 projects) in United Kingdom and Overseas (period 2010 – 2015).
 - I worked on Water and Bridges Projects Overseas in Riyadh on the Southern South Circular Road and the East Road to Dar'iyah (period 2010-2011).
 - I worked Overseas in a private company to support building bridges projects in the Capital City of Riyadh as a civil engineer (period 2011-2013) and I did major studies in infrastructure in the same period.
 - I held Riyadh Financial City infrastructure Projects as a Project Engineer (period 2011-2014) and I prepared the estimates for those Projects in the same period.
 - I worked in King Saud University District infrastructure projects in the City of Riyadh (period 2012-2014) and I contributed to 23 projects in different locations in the same City.
 - I worked in Compounds Construction in a famous Firm in the City of Riyadh (period 2011) on King Salman Highway in the North of the City.
 - I worked in two tall Buildings (16-20 Floors) in the City of Riyadh (period 2011-2013) as a Civil/Electrical Engineer.
 - I am working as an Architectural Engineer in firms in the City of London building Private Compounds (period 2017-2020).
 - I am working now as a Civil/Electrical Engineer in London for London Construction Projects in the Industrial City (North & East London) (period 2020-2022).
 - I worked Overseas in Enertek FZCO International Company as a Telecommunication Research Director Engineer and in Concordia International Company as a Researcher Director Engineer.
 - I contributed by Research Affiliations to IEEE Association, ACM Association, Royal College of Medicine Society, Royal College of Physicians Society, London Mathematical School Society, American Mathematical School Society, Royal Academy of Engineering Society, Oilfield Technology Affiliations, ASME Affiliations, AMEE Affiliations.
 - I constructed the Group of Companies as a Research Director of the Group and Executive Director of All the restructured Companies in United Kingdom in the name of Eulida National Brazil Ltd.
 - I Taught in many United Kingdom Institutes such as:
 - King Saud University Overseas (period 2005 – 2010).
 - University of York (period 2015 – 2018).
 - IT University (period 2017 – 2021).
 - London mathematical School (period 2016 – 2018).
 - Queens Mary University of London (period 2019 – 2021).
 - University of Liverpool (period 2017 – 2019).
 - I worked in International Arab Encyclopedia (period 2005 - 2007) as a second Deputy Director.
 - I worked in International Arab Companies Group as a Second Researcher and Planner (period 2008 - 2011).

- I worked as Assistant Professor in IT University and University of Khartoum (period 2011 - 2021).
- I worked in Queens Mary University of London as Assistant Professor (period 2018 - 2021).
- I worked as Formal Secretary in IEEE Associate as Associate Professor (period 2014 - 2021).