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Working Experience:

Associate Professor (Nov 2016 – Present): Universiti Malaysia Pahang (Malaysia)

Director / Chief Strategy Officer (May 2021 – Present): Centre for Corporate and Quality Affairs, Universiti Malaysia Pahang (Malaysia)

Deputy Director (Rankings)(Oct 2019 – Apr 2021): Centre for Corporate and Quality Affairs, Universiti Malaysia Pahang (Malaysia)

Deputy Dean (Research & Postgraduate Studies) (Mar 2017 – Oct 2019): Universiti Malaysia Pahang (Malaysia)

Head of Industrial Chemistry Programme (2011-Feb 2017): Universiti Malaysia Pahang (Malaysia)

Senior Lecturer (2010 – Nov 2016): Universiti Malaysia Pahang (Malaysia)

Lecturer (2009 – 2010): Temasek Polytechnic (Singapore)

Engineer (2004 – 2005): Darco Water Technologies Limited (Malaysia)

Industrial Intern (2003): W. R. Grace & Co. (Malaysia)

Visiting Professor (Feb 2017, Feb 2018, Jan 2019, Mar 2020): Prince of Songkla University, Thailand

Professional Body:

Malaysian Institute of Chemistry (IKM) –Member

(Chairman of Malaysian Institute of Chemistry-Pahang Branch (*IKM Pahang*))

Updated: July 2021

American Chemical Society – Member
IUPAC Division I – Associate Member

Education:

PhD. (Chemistry), National University of Singapore (NUS), 2010 (Supervisor: Prof. Dr. Kian Ping Loh)

BSc. (Industrial Chemistry), Universiti Teknologi Malaysia, 2004

Research Interest:

Advanced Material, Renewable Energy, Electrochemistry, Supercapacitors, Biosensors, Corrosion Study

Editorial Experience:

Associate Editor – Applied Nanoscience (Springer)

Publications:

(SCOPUS: *h* index=25, citation=1897)

(Google Scholar : *h* index=28, citation=2343)

1. M. H. Mahross; M. A. Taher; M. A. Mostfa; K. F. Chong; G. A. M. Ali, Experimental and Quantum Investigations of Novel Corrosion Inhibitors based Triazene Derivatives for Mild Steel, **Journal of Molecular Structure** 2021, 1242, 130831, (Elsevier, WoS, IF:2.011)
2. M. R. Thalji; G. A. M. Ali; P. Liu; Y. L. Zhong; K. F. Chong*, W₁₈O₄₉ nanowires-graphene nanocomposite for asymmetric supercapacitors employing AlCl₃ aqueous electrolyte, **Chemical Engineering Journal** 2021, 409, 128216. (Elsevier, WoS, IF:10.652)
3. N. Nordin; I. I. Misnon; K. F. Chong; K. S. Loh; R. Jose, Effect of Solvents Ratio and Polymer Concentration on Electrospun Polybenzimidazole Nanofiber Membranes Fabrication, **Materials Science Forum** 2021, 1025, 299. (Trans Tech, SCOPUS)

4. S. P. Lee; G. A. M. Ali; H. H. Hegazy; H. N. Lim; K. F. Chong*, Optimizing Reduced Graphene Oxide Aerogel for a Supercapacitor, **Energy & Fuels** 2021, 35, 4559. (ACS, WoS, IF:3.421)
5. G. A. M. Ali; E. Megiel; P. Ciecioriski; M. R. Thalji; J. Romański; H. Algarni; K. F. Chong*, Ferrocene functionalized multi-walled carbon nanotubes as supercapacitor electrodes, **Journal of Molecular Liquids** 2020, 318, 114064. (Elsevier, WoS, IF:5.065)
6. S. Sapari; N. H. A. Razak; S. A. Hasbullah; L. Y. Heng; K. F. Chong; L. L. Tan, A regenerable screen-printed voltammetric Hg (II) ion sensor based on tris-thiourea organic chelating ligand grafted graphene nanomaterial, **Journal of Electroanalytical Chemistry** 2020, 878, 114670. (Elsevier, WoS, IF:3.807)
7. R. Z. A. R. Jamaluddin; L. L. Tan; K. F. Chong; L. Y. Heng, An electrochemical DNA biosensor fabricated from graphene decorated with graphitic nanospheres, **Nanotechnology** 2020, 31, 48. (IOP, WoS, IF:3.551)
8. V. S. Bhat; T. J. Jayeoye; T. Rujiralai; U. Sirimahachai; K. F. Chong, G. Hegde, Influence of surface properties on electro - chemical supercapacitors utilizing Callerya atropurpurea pod derived porous nanocarbons: Structure property relationship between porous structures to energy storage devices, **Nano Select** 2020, 1, 226. (Wiley)
9. N.H. A. Bakar; J. Ismail; K. F. Chong*, Corrosion Protection Coatings from Size-Specified Graphene Oxide, **Materials Science Forum** 2020, 981, 29. (Trans Tech, SCOPUS)
10. W. S. Lim; K. F. Chong*, Study on Modified Hummers Method for Partially Oxidized Graphene Oxide Synthesis, **Materials Science Forum** 2020, 981, 23. (Trans Tech, SCOPUS)
11. M. Solehudin; U. Sirimahachai; G. A. M. Ali; K. F. Chong; S. Wongnawa, One-pot synthesis of isotype heterojunction g-C₃N₄-MU photocatalyst for effective tetracycline hydrochloride antibiotic and reactive orange 16 dye removal, **Advanced Powder Technology** 2020, 31, 1891-1902. (Elsevier, WoS, IF:4.217)
12. G. A. M. Ali; A. Barhoum; V. K. Gupta; A. Nada; H. El-Maghrabi; R. Kanthasamy; E. R. Shaaban; H. Algarni; K. F. Chong*, High surface area mesoporous silica for hydrogen

- sulfide effective removal, **Current Nanoscience** 2020, 15, 226-234. (Betham Science, WoS, IF:1.836)
13. N. B. Thalib; S. N. H. Mustapha; K. F. Chong, R. Mustapha, Tailoring graphene reinforced thermoset and biothermoset composites, **Reviews in Chemical Engineering** 2020, 36, 623-652. (Degruyter, WoS, IF:5.315)
 14. A. S. Ethiraj; P. Uttam; K. Varunkumar; K. F. Chong, G. A.M. Ali, Photocatalytic performance of a novel semiconductor nanocatalyst: Copper doped nickel oxide for phenol degradation, **Materials Chemistry and Physics** 2020, 242, 122520. (Elsevier, WoS, IF:3.408)
 15. G. A.M. Ali; M. R. Thalji; W. C. Soh; H. Algarni; K. F. Chong*, One-step electrochemical synthesis of MoS₂/graphene composite for supercapacitor application, **Journal of Solid State Electrochemistry** 2020, 24, 25-34. (Springer, WoS, IF: 2.646)
 16. M. R. Thalji; G. A. M. Ali; H. Algarni; K. F. Chong*, Al³⁺ ion intercalation pseudocapacitance study of W₁₈O₄₉ nanostructure, **Journal of Power Sources** 2019, 438, 227028. (Elsevier, WoS, IF:8.427)
 17. A. A. Ghawanmeh; H. M. Al-Bajalan; M. M. Mackeen; F. Q. Alali; K. F. Chong*, Recent developments on (–)-colchicine derivatives: Synthesis and structure-activity relationship, **European Journal of Medicinal Chemistry** 2019, 185, 111788. (Elsevier, WoS, IF:5.572)
 18. G. A. M. Ali; S. Supriya; K. F. Chong; E. R. Shaaban; H. Algarni; T. Maiyalagan; G. Hegde, Superior supercapacitance behavior of oxygen self-doped carbon nanospheres: a conversion of Allium cepa peel to energy storage system, **Biomass Conversion and Biorefinery** 2019, 204, 1. (Springer, WoS, IF: 2.602)
 19. N. H. A. Bakar; G. A. M. Ali; J. Ismail; H. Algarni; K. F. Chong*, Size-Dependent Corrosion Behavior of Graphene Oxide Coating, **Progress in Organic Coatings** 2019, 134, 272-280. (Elsevier, WoS, IF:4.469)
 20. J. K. Ling; B. Pal; K. F. Chong; L. Schmidt-Mende; J. Bisquert; R. Jose, Photocurrents in Crystal-Amorphous Hybrid Stannous Oxide/Alumina Binary Nanofibers, **Journal of the American Ceramic Society** 2019, 102, 6337-6348. (Wiley, WoS, IF:3.502)

21. E. Y. L. Teo; G. A. M. Ali; H. Algarni; W. Cheewasedtham; T. Rujiralai; K. F. Chong*, One-Step Production of Pyrene-1-Boronic Acid Functionalized Graphene for Dopamine Detection, **Materials Chemistry and Physics** 2019, 231, 286-291. (Elsevier, WoS, IF:3.408)
22. M. Giah; D. Pathania; S. Agarwal; G. A. M. Ali; K. F. Chong; V. K. Gupta, Preparation Of Mg-Doped Tio₂ Nanoparticles For Photocatalytic Degradation Of Some Organic Pollutants, **Studia Universitatis Babes-Bolyai, Chemia** 2019, 64, 7-18. (Studia Chemia, WoS, IF:0.494)
23. A. A. Ghawanmeh; G. A. M. Ali; H. Algarni; S. Sarkar; K. F. Chong*, Graphene Oxide-based Hydrogels As A Nanocarrier For Anticancer Drug Delivery, **Nano Research** 2019, 12, 973-990. (Springer, WoS, IF:8.183)
24. G. A. M. Ali; O. A. Habeeb; H. Algarni; K. F. Chong*, CaO impregnated highly porous honeycomb activated carbon from agriculture waste: symmetrical supercapacitor study, **Journal of Materials Science** 2019, 54, 683-692. (Springer, WoS, IF:3.553)
25. P. E. Marina; G. A. M. Ali; L. M. See; E. Y. L. Teo; E-P. Ng; K. F. Chong*, *In situ* growth of redox-active iron-centered particles on graphene sheets for specific capacitance enhancement, **Arabian Journal of Chemistry** 2019, 12, 3883-3889. (Elsevier, WoS, IF:4.762)
26. G. A. M. Ali; H. Sadegh; M. M. Yusoff; K. F. Chong*, Highly stable symmetric supercapacitor from cysteamine functionalized multi-walled carbon nanotubes operating in a wide potential window, **Materials Today: Proceedings** 2019, 16, 2273. (Elsevier, SCOPUS)
27. S. P. Lee; G. A. M. Ali; H. Algarni; K. F. Chong*, Flake size-dependent adsorption of graphene oxide aerogel, **Journal of Molecular Liquids** 2019, 277, 175-180. (Elsevier, WoS, IF:5.065)
28. A. S. Azab; G. A. M. Ali; M. A. Abdullah; H. Algarni; K. F. Chong*, Utilization Of Eugenia Caryophyllata Thumb, Piper Nigrum Linn, and Thymus Vulgaris L Extracts On The Fungal-Invaded Limestone Of Some Monumental Buildings In Cairo, Egypt, **Fresenius Environmental Bulletin** 2018, 27(12A), 9213-9221. (PRT, WoS, IF:0.553)

29. P. Thongprapai; W. Cheewasedtham; K. F. Chong; T. Rujiralai, Selective magnetic nanographene oxide solid-phase extraction with high-performance liquid chromatography and fluorescence detection for the determination of zearalenone in corn samples, **Journal of Separation Science** 2018, 41, 4348-4354. (Wiley, WoS, IF:2.878)
30. R. Elsaman; G. A. M. Ali; M. A. M. Uosif; K. H. S. Shaaban; Y. B. Saddeek; K. A. Saddeek; K. F. Chong, Natural radioactivity of some Egyptian materials used in glasses manufacturing and glass ceramics, **International Journal of Radiation Research** 2018, 16, 207-215.
31. R. Z. A. R. Jamaluddin; L. Y. Heng; L. L. Tan; K. F. Chong, Electrochemical Biosensor for Nitrite Based on Polyacrylic-Graphene Composite Film with Covalently Immobilized Hemoglobin, **Sensors** 2018, 18, 1343 (MDPI, WoS, IF:3.275)
32. E. A. A. Aboelazm; G. A. M. Ali; H. Algarni; K. F. Chong*, Flakes Size-Dependent Optical and Electrochemical Properties of MoS₂, **Current Nanoscience** 2018, 14, 416-420. (Betham Science, WoS, IF:1.836)
33. G. A. M. Ali; E. Megiel; J. Romanski; H. Algarni; K. F. Chong*, A wide potential window symmetric supercapacitor by TEMPO functionalized MWCNTs, **Journal of Molecular Liquids** 2018, 271, 31-39. (Elsevier, WoS, IF:5.065)
34. E. A. A. Aboelazm; G. A. M. Ali; H. Algarni; H. Yin; Y. L. Zhong; K. F. Chong*, Magnetic Electrodeposition of Hierarchical Cobalt Oxide Nanostructure from Spent Lithium-Ion Batteries: Its Application as Supercapacitor Electrode, **Journal of Physical Chemistry C** 2018, 122, 12200-12206. (ACS, WoS, IF:4.189)
35. H. Sadegh; G. A. M. Ali; A. S. H. Makhoulf; K. F. Chong; N. S. Alharbi; S. Agarwal; V. K. Gupta, MWCNTs-Fe₃O₄ nanocomposite for Hg(II) high adsorption efficiency, **Journal of Molecular Liquids** 2018, 258, 345-353. (Elsevier, WoS, IF:5.065)
36. E. R. Shaaban; A. Almohammed; G. A. M. Ali; K. F. Chong; A. Adel; A. Ashour, Structural, Optical and electrical characteristics of sulfur incorporated ZnSe thin films, **Optik** 2018, 164, 527-537. (Elsevier, WoS, IF:2.187)
37. R. Z. A. R. Jamaluddin; Y. H. Lee; L. L. Tan; K. F. Chong, A Biosensor for Genetic Modified Soybean DNA Determination via Adsorption of Anthraquinone-2-sulphonic

- Acid in Reduced Graphene Oxide, **Electroanalysis** 2018, 30, 250-258. (Wiley, WoS, IF:2.544)
38. G. A. M. Ali; M. M. Yusoff; H. Algarni; K. F. Chong*, One-step electrosynthesis of MnO₂/rGO nanocomposite and its enhanced electrochemical performance, **Ceramics International** 2018, 44, 7799-7806. (Elsevier, WoS, IF:3.830)
 39. A. A. Ghawanmeh; K. F. Chong; S. Sarkar; M. A. Bakar; R. Othaman; R. M. Khalid, Colchicine prodrugs and codrugs: Chemistry and bioactivities, **European Journal of Medicinal Chemistry** 2018, 144, 229-242. (Elsevier, WoS, IF:5.572)
 40. G. A. M. Ali; A. Divyashree; S. Supriya; K. F. Chong; A. S. Ethiraj; M. V. Reddy; H. Algarni; G. Hegde, Carbon nanospheres derived from *Lablab purpureus* for high performance supercapacitor electrodes: a green approach, **Dalton Transaction** 2017, 46, 14034-14044. (RSC, WoS, IF:4.174)
 41. C. W. Woon; M. A. Islam; B. Ethiraj; H. R. Ong; C. K. Cheng; K. F. Chong; G. Hedge; M. Khan; M. Rahman, Carbon Nanotube-Modified MnO₂: An Efficient Electrocatalyst for Oxygen Reduction Reaction, **ChemistrySelect** 2017, 2, 7637-7644. (Wiley, WoS, IF:1.811)
 42. S. N. S. M. Zuki; L. L. Tan; N. S. Azmi; L. Y. Heng; K. F. Chong; S. N. Tajuddin, A whole cell bio-optode based on immobilized nitrite-degrading microorganism on the acrylic microspheres for visual quantitation of nitrite ion, **Sensors and Actuators B: Chemical** 2018, 255, 2844-2852. (Elsevier, WoS, IF:7.100)
 43. G. A. M. Ali; E. Y. L. Teo; E. A. A. Aboelazm; H. Sadegh; A. O. H. Memar; R. Shahryari-Ghoshekandi; K. F. Chong*, Capacitive performance of cysteamine functionalized carbon nanotubes, **Materials Chemistry and Physics** 2017, 197, 100-104. (Elsevier, WoS, IF:3.408)
 44. S. M. Sarkar; M. L. Rahman; K. F. Chong; M. M. Yusoff, Poly (hydroxamic acid) palladium catalyst for heck reactions and its application in the synthesis of Ozagrel, **Journal of Catalysis** 2017, 350, 103-110. (Elsevier, WoS, IF:7.888)
 45. G. A. M. Ali; M. M. Yusoff; E. R. Shaaban; K. F. Chong*, High Performance MnO₂ Nanoflower Supercapacitor Electrode by Electrochemical Recycling of Spent Batteries, **Ceramics International** 2017, 43, 8440-8448. (Elsevier, WoS, IF:3.830)

46. W. K. Chee; H. N. Lim; Z. Zainal; I. Harrison; N. M. Huang; Y. Andou; K. F. Chong; A. Pandikumar, Electrospun nanofiber membranes as ultrathin flexible supercapacitors, **RSC Advances** 2017, 7, 12033-12040. (RSC, WoS, IF:3.070)
47. B. H. Mandal; M. L. Rahman; M. M. Yusoff; K. F. Chong; S. M. Sarkar, Bio-waste corn-cob cellulose supported poly (hydroxamic acid) copper complex for Huisgen reaction: Waste to wealth approach, **Carbohydrate Polymers** 2017, 156, 175-181. (Elsevier, WoS, IF:7.182)
48. N. S. M. Noor; L. L. Tan; L. Y. Heng; K. F. Chong; S. N. Tajuddin, Acrylic microspheres-based optosensor for visual detection of nitrite, **Food Chemistry** 2016, 207, 132-138. (Elsevier, WoS, IF:6.306)
49. C. Y. Foo; H. N. Lim; M. A. Mahdi; K. F. Chong; N. M. Huang, High-Performance Supercapacitor Based on Three-Dimensional Hierarchical rGO/Nickel Cobaltite Nanostructures as Electrode Materials, **The Journal of Physical Chemistry C** 2016, 120, 21202-21210. (ACS, WoS, IF:4.189)
50. E. Y. L. Teo; L. Muniandy; E-P. Ng; F. Adam; A. R. Mohamed; R. Jose; K. F. Chong*, High surface area activated carbon from rice husk as a high performance supercapacitor electrode, **Electrochimica Acta** 2016, 192, 110-119. (Elsevier, WoS, IF:6.216)
51. G. A. M. Ali; O. A. Fouad; S. A. Makhoulf; M. M. Yusoff; K. F. Chong*, Optical and electrochemical properties of $\text{Co}_3\text{O}_4/\text{SiO}_2$ nanocomposite, **Advanced Material Research** 2016, 1133, 447-451.
52. G. Hedge; S. A. A. Manaf; A. Kumar; G. A. M. Ali, K. F. Chong; Z. Ngaini; K. V. Sharma, Biowaste sago bark based catalyst free carbon nanospheres: Waste to wealth approach, **ACS Sustainable Chemistry & Engineering** 2015, 3, 2247-2253. (ACS, WoS, IF:7.632)
53. G. A. M. Ali; S. A. Makhoulf; M. M. Yusoff; K. F. Chong, Structural and electrochemical characteristics of graphene nanosheets as supercapacitor electrodes, **Reviews on Materials Science** 2015, 41, 35-43.
54. G. A. M. Ali; M. M. Yusoff; Y. H. Ng; H. N. Lim; K. F. Chong*, Potentiostatic and galvanostatic electrodeposition of manganese oxide for supercapacitor application: A

- comparison study, **Current Applied Physics** 2015, 15, 1154-1147. (Elsevier, WoS, IF:2.281)
55. E. Y. L. Teo; H. N. Lim; R. Jose; K. F. Chong*, Aminopyrene functionalized reduced graphene oxide as a supercapacitor electrode, **RSC Advances** 2015, 5, 38111-38116. (RSC, WoS, IF:3.070)
 56. G. A. M. Ali; O. A. G. Wahba; A. M. Hassan; O. A. Fouad; K. F. Chong*, Calcium-based nanosized mixed metal Oxides for supercapacitor application, **Ceramics International** 2015, 41, 8230-8234. (Elsevier, WoS, IF:3.830)
 57. W. K. Chee; H. N. Lim; I. Harrison; K. F. Chong; Z. Zainal; C. H. Ng; N. M. Huang, Performance of flexible and binderless polypyrrole/graphene oxide/zinc oxide supercapacitor electrode in a symmetrical two-electrode configuration, **Electrochimica Acta** 2015, 157, 88-94. (Elsevier, WoS, IF:6.216)
 58. A. A. Radhiyah; M. I. Izwan; V. Baiju, K. F. Chong; I. Jamil, R. Jose, Doubling of electrochemical parameters via the pre-intercalation of Na⁺ in layered MnO₂ nanoflakes compared to α -MnO₂ nanorods, **RSC Advances** 2015, 5, 9667-9673. (RSC, WoS, IF:3.070)
 59. R. M. Zaid; F. C. Chong; E. Y. L. Teo; E-P. Ng; K. F. Chong*, Reduction of graphene oxide nanosheets by natural beta carotene and its potential use as supercapacitor electrode, **Arabian Journal of Chemistry** 2015, 8, 560-569. (Elsevier, WoS, IF:4.762)
 60. N. Zainudin; M. M. Yusoff; K. F. Chong*, Flow injection analysis nitrite sensor based on reduced graphene oxide modified electrode, **Advanced Materials Research** 2015, 1113, 411-416.
 61. G. A. M. Ali; M. M. Yusoff; K. F. Chong*, Electrochemical properties of electrodeposited MnO₂ nanoparticles, **Advanced Materials Research** 2015, 1113, 550-553.
 62. G. A. M. Ali; S. A. A. Manaf; A. Kumar; K. F. Chong; G. Hegde, High performance supercapacitor using catalysis free porous carbon nanoparticles, **Journal of Physics D: Applied Physics** 2014, 47, 495307-495312. (IOP, WoS, IF:3.169)

63. G. A. M. Ali; L. L. Tan; R. Jose; M. M. Yusoff; K. F. Chong*, Electrochemical performance studies of MnO₂ nanoflowers recovered from spent battery, **Materials Research Bulletin** 2014, 60, 5-9. (Elsevier, WoS, IF:4.019)
64. N. Hindryawati; G. P. Maniam; M. R. Karim; K. F. Chong, Transesterification of used cooking oil over alkali metal (Li, Na, K) supported rice husk silica as potential solid base catalyst, **Engineering Science and Technology, An International Journal** 2014, 17(2), 95-103. (Elsevier, WoS, IF:3.219)
65. N. Zainudin; A. R. M. Hairul; M. M. Yusoff; L. L. Tan; K. F. Chong*, Impedimetric graphene-based biosensor for the detection of Escherichia coli DNA, **Analytical Methods** 2014, 6(19), 7935-7941. (RSC, WoS, IF:2.596)
66. G. A. M. Ali; O. A. Fouad; S. A. Makhoul; M. M. Yusoff; K. F. Chong*, Co₃O₄/SiO₂ nanocomposites for supercapacitor application, **Journal of Solid State Electrochemistry** 2014, 18, 2505-2512. (Springer, WoS, IF:2.646)
67. S. M. Supian; L. L. Tan; Y. H. Lee; K. F. Chong, Quantitative determination of Al(III) ion by using Alizarin Red S including its microspheres optical sensing material, **Analytical Methods** 2013, 5(10), 2602-2609. (RSC, WoS, IF:2.596)
68. R. A. Aziz; I. I. Misnon; K. F. Chong; M. M. Yusoff; R. Jose, Layered sodium titanate nanostructures as a new electrode for high energy density supercapacitors, **Electrochimica Acta** 2013, 113, 141-148. (Elsevier, WoS, IF:6.216)
69. E. Y. L. Teo; R. M. Zaid; T. L. Ling; K. F. Chong*, Facile corrosion protection coating from graphene, **International Journal of Chemical Engineering and Applications**, 2012, 3, 453-455.
70. K. F. Chong; K. P. Loh; K. Ang; Y. P. Ting, Whole cell environmental biosensor on diamond, **Analyst** 2008, 6, 739-743. (RSC, WoS, IF:3.978)
71. K. F. Chong; K. P. Loh; S. R. K. Vedula; C. T. Lim; H. Sternschulte; D. Steinmuller; F-S. Sheu; Y. L. Zhong, Cell adhesion properties on photochemically functionalized diamond, **Langmuir** 2007, 23 (10), 5615-5621. (ACS, WoS, IF:3.557)
72. Y. L. Zhong; K. F. Chong; P. W. May; Z-K. Chen; K. P. Loh, Optimizing biosensing properties on undecylenic acid-functionalized diamond, **Langmuir** 2007, 23(10), 5824-5830. (ACS, WoS, IF:3.557)

Awards:

1. Obelisk World Invention Award + Platinum Award + Diamond Award + Gold Award: “Biowaste as Energy Storage Supercapacitor” – British Invention Show (BIS), United Kingdom (2015).
2. Gold Medal: “Biowaste as Energy Storage Supercapacitor” - 26th International Invention & Innovation Exhibition (ITEX), Malaysia (2015)
3. Gold Medal + Green Technology Award: “Energy Storage Supercapacitor from Biowaste” – CiTREX, Malaysia (2015)
4. Gold Medal: “Recycled Spent Battery for Energy Storage Supercapacitor” -XVII Moscow International Salon on Invention and Innovation Technologies (ARCHIMEDES) , Russia (2014)
5. Gold Medal: “Recycled Spent Battery for Energy Storage Supercapacitor” - 24th International Invention & Innovation Exhibition (ITEX), Malaysia (2013)
6. Gold Medal: “Self-Plasticized Acrylic Microsphere-based Chemosensor for Visual Detection of Nitrite in Edible Bird’s Nests” - 24th International Invention & Innovation Exhibition (ITEX), Malaysia (2013)
7. Gold Medal: “Metal Nanofibers with Unmatched Surface Area for Electronic Applications” - Seoul International Invention Fair (SIIF), Korea (2012)
8. Best Paper: “Enhanced lead ions detection on bacteria modified boron doped diamond” - 2nd International Conference on Chemical Engineering and Applications (CCEA), Maldives (2011)
9. Best Paper: “ Electrochemical Study of Graphene and its Oxidized Form” - Malaysian Technical Universities International Conference on Engineering and Technology (MUI CET), Malaysia (2011)
10. Scholarship: “Development of Biosensor and Electrochemical Studies of Carbon-based Materials” - National University of Singapore Nanoscience and Nanotechnology Initiative (NUSNNI), Singapore (2005-2009)

Research Grants as Principal Investigator:

1. 2020: “Optimizing Surface Chemistry Of Graphene Aerogel Towards Water Pollutants Adsorption” (Malaysia Toray Science Foundation: RM 20,000)
2. 2019-2021: “Structural Investigation of Graphene Aerogel Towards Water Pollutants Adsorption” (FRGS: RM 141,578.00)
3. 2019-2020: “Nanocarbons-Graphene hybrid Material as High Performance Supercapacitor” (Asean India Science & Technology Development Fund AISTDF: Rs. 3,023,438)
4. 2017-2019: “The study of correlation between electrodeposition parameters and performance of graphene-Al oxide composite coating for corrosion and wear resistant” (FRGS: RM 84,633)
5. 2017-2019: “Optimization of Electrodeposition for Cobalt Recovery From Spent Lion Ion Battery” (UMP-Internal: RM 31,200)
6. 2016-2018: “Synergistic combination of processing parameters on the electrochemical exfoliation of graphite into graphene” (FRGS: RM 68,000)
7. 2014-2016: “Energy Storage Supercapacitor Fabrication from Spent Battery Recycling” (MOSTI-eScienceFund: RM 192,000.00)
8. 2014-2016: “Development of Label-Free Electrochemical Detection System for Nitrite Ions in Edible Bird Nest” (RACE: RM 50,000.00)
9. 2013-2014: “Supercapacitors from Waste Resources” (MTUN-COE Showcase: RM 10,000.00)
10. 2012-2014: “ Development of Nitrite Biosensor Based on Graphene Nanomaterial” (UMP-Internal: RM 38,500.00)
11. 2012-2014: “Exploratory Study of Graphene-Based Nucleic Acid Biosensor for Food Pathogen Detection” (ERGS: RM 89,000.00)
12. 2012-2014: “Graphene Synthesis and Characterization” (MTUN-COE: RM 184,000.00)
13. 2011-2013: “Carbon Nanocomposite Paper for Energy Storage” (UMP-Internal: RM 34,500.00)
14. 2010-2012: “Electrochemical Study on Graphene and its Functional Derivatives” (UMP-Internal: RM 40,000.00)

Patents:

1. Malaysia IP: “A Method of Producing Electrodes for Supercapacitor” (PI2013702077)
2. Malaysia IP: “Energy Storage Supercapacitor from Biomass” (PI 2015704170)

Consultation Projects for:

1. Malaysian Solar Resources (M) Sdn. Bhd.
2. Tan Kor Seng & Sons Rubber Works (M) Sdn. Bhd.
3. Enzyme Technology Malaysia Sdn. Bhd.
4. Petronas Research Sdn. Bhd.
5. Lynas Malaysia Sdn. Bhd.
6. Nilam Kekal Sdn. Bhd.

Supervision:

As main supervisor:

1. 1 Postdoctoral scholar
- Dr. Gomaa A.M. Ali (2017-2019)
2. 8 PhD. Students (5 completed, 3 on-going)
- Dr. Gomaa A. M. Ali (Completed)
- Dr. Ellie Teo Yi Lih (Completed)
- Dr. Nurulasma Zainudin (Completed)
- Dr. Nurul Huda binti Abu Bakar (Completed)
- Dr. Muhammad Thalji (Completed)
- Ms. Geraldine Chan Sue Ching (On-going)
- Mr. Abdullah Ghawanmeh (On-going)
- Mr. Lee Soon Poh (On-going)
3. 5 MSc. Students (4 completed, 1 on-going)
- Ms. Puteri Emme Marina (Completed)
- Ms. Lim Wan Sin (Completed)

- Mr. Eslam Atef Abdelaziz Aboelazm (Completed)
- Ms. Nur Syarmin (Completed)
- Mr. Yasin Baraqouni (On-going)

Evaluation experience:

1. External Assessor: BSc. (Hons.) Pharmaceutical Chemistry, International Medical University (2018 – 2019)
2. Panel: MyBRAIN15 (2018)
3. Panel: KPT FRGS (2020) & KPT KKP (2020)
4. Panel: Academic Promotion UKM (2020)
5. Judge: Science Competition by Foo Chow Association (2016)
6. Judge: UMP CITREX Competition (2014)
7. Panel: JPA Overseas Scholarship Interview (2011)