**CURRICULUM VITAE**

**Dr. Iftikhar Ahmad**

Assistant Professor,

*Center of Excellence for Research in Engineering Materials (CEREM), Advanced Manufacturing Institute, King Saud University, P.O. Box: 800, Riyadh 11421, Kingdom of Saudi Arabia*.

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**Research Interests:**

1. Synthesis and characterization of graphitic nanostructures and other inorganic nanomaterials.
2. Design and fabrication of organic (polymer) and inorganic (ceramics) nanocomposites.
3. Transmission electron microscopy (TEM) studies of nanomaterials and nanocomposites.
4. Nanocomposites functionalities.
5. Nano-scale research on composites interfaces.

**Education:**

2005-2009 -Doctor of Philosophy (PhD) - Materials Design and Materials Engineering, The University of Nottingham, Nottingham, United Kingdom.

2003-2005 - Master of Science (MS) - Polymer Technology, University of Applied Science and Technology, Aalen, Germany.

1994-1998 - Master of Science in Engineering (MS-Engg) - Metallurgical Engineering, NED University of Engineering and Technology, Karachi, Pakistan.

1989-1994 - Bachelor of Science in Engineering (BSc Engg)- Metallurgical Engineering and Materials Science, University of Engineering and Technology, Lahore, Pakistan.

**Career**:

**2012-Continue** Assistant Professor in CEREM (Centre of Excellence for Research in Engineering Materials), Advanced Manufacturing Institute, King Saud University, Riyadh, Kingdom of Saudi Arabia.

**2009-2012** Government of Pakistan, Islamabad, Pakistan.

**2005-2009** Teaching Assistant, The University of Nottingham. United Kingdom.

**2004-2005** Murr Plastik GmbH, Oppenweiler, Germany.

**1996-2003** Government of Pakistan, Islamabad, Pakistan.

**Professional courses and training:**

2012 - Operation and Maintenance of FEG-TEM (Transmission Electron Microscope) JEOL -2100F, Japan in King Saud University, Riyadh, Saudi Arabia.

2010 - Course on the industrial applications of nanomaterials, National Center for Physics,

Islamabad, Pakistan.

2008 - Web Page Designing and Publishing, The University of Nottingham, United Kingdom.

2007 - Creative thinking, The University of Nottingham, United Kingdom.

2007 - Presentation skills-1 & 2, The University of Nottingham, United Kingdom.

2005 - Application of ANSYS in Polymer Technology, Murr Plastik, Oppenweiler, Germany.

2005 - Studium Arbiet (student work), MAN Nutzfahrzeuge, Munich, Germany.

1998 - Auto-Desk mechanical desktop, Islamabad, Pakistan.

FEG-TEM (Field Emission-Transmission Electron Microscope), XRD (X-ray Diffraction), FT-IR (Fourier Transformation Infra-Red Spectroscopy), Mechanical Testing (Instron Universal Testing Machine), Electric Testing (Four probe testing), Magnetic Testing, FEG-SEM (Field Emission-Scanning Electron, Microscopy), Raman Spectroscopy, Wear Testing, Creep Testing

Research projects and Grants:

2014-2016 – National Plan for science and Technology, Kingdom of Saudi Arabia (0.6 MUS$).

2015-2017 – National Plan for science and Technology, Kingdom of Saudi Arabia (0.6 MUS$).

2005-2009 - The University Nottingham, United Kingdom (EPSRC project).

2003-2005 – University of Applied Science, Aalen Germany (Murr Plastik GmbH, Germany).

**SI Journals Reviewer:**

(1): Journal of Ceramics Science and Technology, (2): Polymer composites, (3): Surface Review and Letters, (4): Ceramics international, (5): Materials Letters, (6): Journalof Modern Physics letter B, (7): NUST journal of Engineering Sciences.

Selected Publications-In Referred (ISI) Journals:

**2016**

1. Amna Safdar, Mohammad Islam, Iftikhar Ahmad, Aftab Akram, Mohammad Mujahid, Yasir Khalid, Yanqiu Zhu, Quantum confinement and size effects in Cu2ZnSnS4 thin films produced using solution processed ultrafine nanoparticles, Materials Science in Semiconductor Processing 41(2016) 420–427.

**2015**

1. Iftikhar Ahmad, Mohammad Islam, Tayyab Subhani, and Yanqiu Zhu. Characterization of GNP-Containing Al2O3 Nanocomposites Fabricated via High Frequency-Induction Heat Sintering Route, J. of Materi Eng and Perform, DOI 10.1007/s11665-015-1738-0.
2. Iftikhar Ahmad, Mohammad Islam, Hany Sayed Abdo, Tayyab Subhani, Khalil Abdelrazek Khalil, Abdulhakim A. Almajid, Bahareh Yazdani, Yanqiu Zhu, Toughening mechanisms and mechanical properties of graphene nanosheet-reinforced alumina, Materials and Design 88 (2015) 1234–1243.
3. Tayyab Subhani; Munaisra Latif; Iftikhar Ahmad; Sobia A Rakha; Naveed Ali; Aqeel A Khurram, Mechanical performance of carbon nanotube and nanodiamond reinforced epoxy matrix hybrid nanocomposites, Materials and Design, Materials and Design 87 (2015) 436–444.
4. Bahareh Yazdani, Fang Xu, Iftikhar Ahmad, Xianghui Hou, Yongde Xia & Yanqiu Zhu, Tribological performance of Graphene/Carbon nanotube hybrid reinforced Al2O3 composites, Scientific Reports, 5:11579, DOI: 10.1038/srep11579.
5. Iftikhar Ahmad, Bahareh Yazdani, Yanqiu Zhu, Recent advances in carbon nanotube and graphene reinforced ceramics nanocomposites, Nanomaterials, 2015, 5(1), 90-114.
6. Iftikhar Ahmad, Mohammad Islam, Mushtaq Ahmad Dar, Fang Xu, Syed Ismat Shah, Yanqiu Zhu , Magnesia tuned multi-walled carbon nanotubes–reinforced alumina nanocomposites, Materials Characterization, 99 (2015) 210–219.
7. Yazdani, B.; Xia, Y.; Ahmad, I.; Zhu, Y. Graphene and carbon nanotube (GNT)-reinforced alumina nanocomposites , Journal of the European Ceramic Society 2015, 35 179–186.
8. [M.A. Dar](http://link.springer.com/search?facet-author=%22M.A.+Dar%22), [S.H. Nam](http://link.springer.com/search?facet-author=%22S.H.+Nam%22), [J.Y. Kim](http://link.springer.com/search?facet-author=%22J.Y.+Kim%22), [I. Ahmad](http://link.springer.com/search?facet-author=%22I.+Ahmad%22), [B.K. Cho](http://link.springer.com/search?facet-author=%22B.K.+Cho%22), [W.B. Kim](http://link.springer.com/search?facet-author=%22W.B.+Kim%22), Magnetic Response of Hydrothermally Prepared Self-Assembled Co3O4 Nano-platelets, January 2015, Volume 44, [Issue 1](http://link.springer.com/journal/11664/44/1/page/1), pp 1-5.

**2014**

1. Imran shakir, muhammad shahid, mansoor sarfraz, iftikhar ahmad, mohammad a al-eshaikh, Photocatalytic properties of single crystalline MoV2O8 nanowires, optoelectronics and advanced materials – rapid communications Vol. 8, No. 11-12, Nov. – Dec. 2014, p. 1068 – 1071.
2. Asad Hameed, Mohammad Islam, Iftikhar ahmad, Nasir Mahmood, Shaukat Saeed, Hassan Javed, Thermal and Mechanical Properties of Carbon Nanotube/Epoxy Nanocomposites Reinforced with Pristine and Functionalized Multiwalled Carbon Nanotubes, POLYMER COMPOSITES—2014, DOI 10.1002/pc.23097.1.5.
3. Iftikhar Ahmad and Mushtaq Ahmad Dar, Structure and Properties of Y2O3-Doped Al2O3-MWCNT Nanocomposites Prepared by Pressureless Sintering and Hot-Pressing, JMEPEG (2014) 23:2110–2119.
4. Mushtaq Ahmad Dar, Hatem Abuhimd, Iftikhar Ahmad, Mohammad Islam and Hyung-Shik Shin, Effects of cobalt and cobalt oxide buffer layers on nucleation and growth of hot filament chemical vapor deposition diamond films on silicon (100) Korean J. Chem. Eng. DOI: 10.1007/s11814-014-0093-4.
5. Asif Mahmood, Shahid M. Ramay, Yousef S. Al-Zaghayer, Shahid Atiq, Iftikhar Ahmad and Salah Din Khan, Study the structure and performance of thermal/plasma modified Au nanoparticle-doped TiO2 photocatalyst, Modern Physics letters B, Vol. 28, No. 26 (2014) 1450208.
6. Iftikhar Ahmad, Mohammad Islam, A. Al-Majid, Yazdani Bahari, Yanqiu Zhu, Investigation of yttria–doped alumina nanocomposites reinforced by multi–walled carbon nanotubes, 2014, Ceramics International, <http://dx.doi.org/10.1016/j.ceramint.2014.01.156>.

**2006-2014**

1. Ahmad I., Kennedy A. and Zhu Y. Q., Wear resistance properties of multi-walled carbon nanotubes reinforced Al2O3 nanocomposite, Wear, [Volume 269, Issues 1-2](http://www.sciencedirect.com/science?_ob=PublicationURL&_tockey=%23TOC%235782%232010%23997309998%231942693%23FLA%23&_cdi=5782&_pubType=J&view=c&_auth=y&_acct=C000050221&_version=1&_urlVersion=0&_userid=10&md5=28e42ff42ffbb472c838933ecba79601), 20 May 2010, Pages 71-78.
2. Iftikhar Ahmad, Michael Fay, Andrew Kennedy and YanQiu Zhu, Multi-walled carbon nanotubes reinforcing Al2O3 nanocomposites: Mechanical properties and interfacial investigations, manuscript accepted in Journal of Composite Science and Technology, [Volume 70, Issue 8](http://www.sciencedirect.com/science?_ob=PublicationURL&_tockey=%23TOC%235571%232010%23999299991%232067738%23FLA%23&_cdi=5571&_pubType=J&view=c&_auth=y&_acct=C000050221&_version=1&_urlVersion=0&_userid=10&md5=c7336407c78deded99244904146eb276), August 2010, Pages 1199-1206.
3. Iftikhar Ahmad, Hongzhi Cao, Huahui Chen, Huiyou Zhao, Andrew Kennedy and Yan Qiu Zhu, Carbon nanotube toughened aluminium oxide nanocomposite, J. European. Ceramic Society. [Volume 30, Issue 4](http://www.sciencedirect.com/science?_ob=PublicationURL&_tockey=%23TOC%235576%232010%23999699995%231578183%23FLA%23&_cdi=5576&_pubType=J&view=c&_auth=y&_acct=C000050221&_version=1&_urlVersion=0&_userid=10&md5=822ed4aacfcc8b19f31f1cf9c9bc6fd0), March 2010, Pages 865-873 2010.
4. Iftikhar Ahmad, Michael Fay, Yongde Xia, Xianghui Hou, Andrew Kennedy and Yanqiu Zhu, Fe-Assisted Synthesis of Silicon Nanowires, J. Phys. Chem. C, 2009, 113 (4), pp 1286–1292.
5. Yimin Zhao, Charles W. Dunnill, Yanqiu Zhu, Duncan H. Gregory, Walter Kockenberger, Yanhui Li, Weibing Hu, Iftikhar Ahmad, and David G. McCartney, Low-temperature magnetic properties of hematite Nanorods, Chem. Mater., 2007, 19 (4), pp 916–921.
6. Y M Zhao, Y H Li, Y Z Jin, X P Zhang, W B Hu, I Ahmad, G McCartney, Y Q Zhu1 [Growth and characterization of Cu-catalyzed ZnO nanowires](http://www.iop.org/EJ/article/1742-6596/61/1/141/jpconf7_61_141.pdf), Journal of Physics,61 (2007) 703–707.
7. Y. H. Li, Y. M. Zhao, W. B. Hu, I. Ahmad, Y. Q. Zhu, X. J. Peng, Z. K. Luan, Carbon nanotubes – the promising adsorbent in wastewater treatment, Journal of Physics,61 (2007) 698–702.
8. Zhao, Y. M.  Li, Y. H.  Ahmad, I.  McCartney, D. G.  Zhu, Y. Q.  Hu, W. B. Two-dimensional tungsen oxide nanowire networks, [Applied Physics Letters](http://ieeexplore.ieee.org/xpl/RecentIssue.jsp?punumber=4816218), 2006, 89, 13, 133116 - 133116-3.

Publications-In Reputed International Conference Proceedings:

1. Iftikhar Ahmad, Mohammad Islam, Muhammad Ali, Abdulhakim Almajid, Graphene nanosheets (GNSs)-Alumina Nanocomposites fabricated by high-frequency induction-heat sintering process, Advances in Materials and Processing Technologies (AMPT), Dubai, 2014.
2. Iftikhar Ahmad, Carbon nanotubes assisted growth of extremely small silicon nanowires, IBCAST, Pakistan, 2011.
3. Iftikhar Ahmad, Impediments in the Characterization of Carbon nanotubes reinforced alumina nanocomposites, DICE 2010, Islamabad, Pakistan, 2010.
4. Iftikhar Ahmad, Carbon nanotube reinforced alumina nanocomposites, Mechanical properties and wear resistance, IBCAST, Pakistan, 2010.
5. Iftikhar Ahmad, Andrew Kennedy and Yanqiu Zhu, Mechanical properties and interfacial investigations of carbon nanotube reinforced Al2O3 nanocomposites, ICCM-17, Edinburgh, United Kingdom, July 2009.
6. Iftikhar Ahmad, Hongzhi Cao, Huahui Chen, Andrew Kennedy, Huiyou Zhao and Yanqiu Zhu, Carbon nanotubes-reinforcing MgO doped Al2O3 nanocomposites, ECCM13: 13th European Conference on Composite Materials, Stockholm, Sweden, 2008.
7. Iftikhar Ahmad, Yimin Zhao, Andrew Kennedy and Yanqiu Zhu, Manufacturing and characterization of multi-walled carbon nanotube reinforced Al2O3 nanocomposite, In the proceedings of IBCAST, Pakistan, 2008.
8. Iftikhar Ahmad, Andrew Kennedy and Yanqiu Zhu, Effects of Y2O3 on the mechanical Properties and Microstructure of Carbon Nanotube-Reinforced Al2O3 Nanocomposite, Junior EUROMAT, Lausanne, Switzerland, 2008.
9. I. Ahmad, Y. Zhu, Y. Zhao, A. Kennedy and D. G. McCartney, Development of well-Dispersed Carbon Nanotube-Reinforced Al2O3 nanocomposite, EUROMAT 2007, Nuremberg, Germany.