

# Arshad Aziz

Professor

Pakistan Navy Engineering College

Email: arshad@pnec.nust.edu.pk

Contact: 2135869248

LinkedIn:



## About

Dr. Arshad Aziz is working as Professor in the Pakistan Navy Engineering College. Dr. Arshad Aziz has a PhD in Information Security And Fpga Design. Dr. Arshad Aziz has published 63 research articles & conference papers having a citation count of 171, carried out 2 projects and filed 2 intellectual property.

## Qualifications

<b>PhD in Information Security And Fpga Design</b> NUST, Islamabad , Pakistan	2002 - 2007
<b>MS in Computer Networking</b> Sir Syed UET , Pakistan	2000 - 2002
<b>BS in Computer Engineering</b> Sir Syed UET , Pakistan	1994 - 1998

## Experience

<b>Professor</b> Pakistan Navy Engineering College	2024- Present
<b>Professor</b> Pakistan Navy Engineering College	2021 - 2021
<b>Associate Professor</b> Pakistan Navy Engineering College	2011 - 2003
<b>Assistant Professor</b> Pakistan Navy Engineering College	2007 - 2011
<b>Assistant Lecturer</b> Pakistan Navy Engineering College	2003 - 2002
<b>Demonstrator</b> Pakistan Navy Engineering College	2002 - 2021
<b>Demonstrator</b> Pakistan Navy Engineering College	2000 - 2007
<b>Systems Manager</b> Pakistan Navy Engineering College , Habib Rehmatullah Road Karachi 75600	1998 - 2000

## Awards

## Professional Memberships

<b>PEC</b>	Since 1998
------------	------------

## Research Projects

---

### National Projects

#### Self Navigating Car

2021

**Funding Agency:** IGNITE

**Amount:** PKR N/A

**Status:** Completed

#### 1500 Lines IPPABX for Pakistan Navy

**Funding Agency:** Naval HQ (NHQ)

**Amount:** PKR 27,000,000.00

**Status:** Completed

### International Projects

## Research Articles

---

#### Area-Time Efficient Pipelined Number Theoretic Transform for CRYSTALS-Kyber

2025

*Ayesha Waris Bilal Muhammad Khan Arshad Aziz*

*PLOS ONE*, Volume 20(5), Article Number e0323224

**Impact Factor:** 2.900 | **Quartile:** 1

**DOI:** <https://doi.org/10.1371/journal.pone.0323224>

#### UniHaCh: Unicode and Hash Function Supported with Counting and Frequency Recurrence of Arabic Characters for Quranic Text Watermarking

2023

*Arshad Aziz Majida Kazmi Samreen Habib Saad Hayat Lubaba Rehman Saad Ahmed Qazi*

*Arabian Journal for Science and Engineering*, Pages 1-17

**Impact Factor:** 2.9 | **Quartile:** 2

**DOI:** <https://doi.org/10.1007/s13369-023-08349-9>

#### Approximate Computing: Hardware and Software Techniques, Tools and Their Applications

2023

*Arshad Aziz Mehwish Raza Sharjeel Javed Majida Kazmi Muhammad Fahim Ul Haque Saad Ahmed Qazi*

*Journal of Circuits Systems and Computers*, Pages 1-64

**Impact Factor:** 1.5 | **Quartile:** 4

**DOI:** [10.1142/S0218126624300010](https://doi.org/10.1142/S0218126624300010)

#### An Efficient IIoT-Based Smart Sensor Node for Predictive Maintenance of Induction Motors

2023

*Majida Kazmi Tabasum Shoaib Arshad Aziz Hashim Raza Khan Saad Ahmed Qazi*

*Computer Systems Science and Engineering*, Volume 47(1), Pages 255-272

**Impact Factor:** 2.2 | **Quartile:** 3

**DOI:** <https://doi.org/10.32604/csse.2023.038464>

#### Integrated representation for discrete Fourier and wavelet transforms using vector notation

2022

*Tariq Javid Muhammad Faris Arshad Aziz Pervez Akhtar*

*Mehran University Research Journal of Engineering and Technology*, Volume 41(3) 175-184

**Impact Factor:** 0

**DOI:** <https://doi.org/10.22581/muet1982.2203.18>

#### Segmented Multistage Reconstruction of Magnetic Resonance Images

2021

*Arshad Aziz Muhammad Faris Tariq Javed Majida Kazmi*

*Advances in Electrical and Computer Engineering*, Volume 21, Issue 4, Pages 107-114

**Impact Factor:** 1.221 | **Quartile:** 4 | **Citations:** 1

**DOI:** [10.4316/AECE.2021.04012](https://doi.org/10.4316/AECE.2021.04012)

#### Resource-Shared Crypto-Coprocessor of AES Enc/Dec With SHA-3

2020

*Arshad Aziz Dur-e-Shahwar Kunidi Ayesha Khalid Chenghua Wang Máire O'Neill Weiqiang Liu*

*IEEE Transactions on Circuits and Systems I: Regular Papers (Early Access)*, Volume 67, Issue 12

**Impact Factor:** 3.605 | **Quartile:** 2 | **Citations:** 37

**DOI:** [10.1109/TCSI.2020.2997916](https://doi.org/10.1109/TCSI.2020.2997916)

#### Resource-Efficient Image Buffer Architecture for Neighborhood Processor

2020

*Arshad Aziz Majida Kazmi Hashim Raza Khan Lampros Stergioulsa Saad Ahmed Kazi*

*IEEE Access*, Volume 8, Pages 181964-181975

**Impact Factor:** 3.367 | **Quartile:** 2 | **Citations:** 1

**DOI:** [10.1109/ACCESS.2020.3025344](https://doi.org/10.1109/ACCESS.2020.3025344)

- A Pareto-Optimal Multi-filter Architecture on FPGA for Image Processing Applications** 2019  
*Majida Kazmi Arshad Aziz Dur-E-Shahwar Kundi*  
*Circuits Systems and Signal Processing*, Volume 38, Issue 10, Pages 4762-4786  
**Impact Factor:** 1.681 | **Quartile:** 3 | **Citations:** 2  
**DOI:** 10.1007/s00034-019-01083-4
- A new rectangular window based image cropping method for generalization of brain neoplasm classification systems** 2018  
*RAZIA ZIA PERVEZ AKHTAR ARSHAD AZIZ*  
*International Journal of Imaging Systems and Technology*, NULL  
**Impact Factor:** 1.254 | **Quartile:** 3 | **Citations:** 27  
**DOI:** 10.1002/ima.22266
- Multi-Resolution Transforms Based Hybrid Feature Extraction Technique for Differentiating Glioma Grades.** 2018  
*Razia Zia Pervez Akhtar Arshad Aziz Dur-E-Shahwar Kundi*  
*International Journal of Wavelets, Multiresolution and Information Processing*, Volume 16, No. 06, Article Number 1850048  
**Impact Factor:** 0.523 | **Quartile:** 4  
**DOI:** 10.1142/S0219691318500480
- An efficient and compact row buffer architecture on FPGA for real-time neighbourhood image processing** 2017  
*Majida Kazmi Arshad Aziz Pervez Akhtar*  
*Journal of Real-Time Image Processing*, NULL  
**Impact Factor:** 1.574 | **Quartile:** 3 | **Citations:** 3  
**DOI:** 10.1007/s11554-017-0690-7
- A Low Cost Structurally Optimized Design for Diverse Filter Types** 2016  
*Majida Kazmi Arshad Aziz Pervez Akhter Nassar Ikram*  
*PLoS ONE*, Volume 11, Issue 11, Article number e0166056  
**Impact Factor:** 2.806 | **Quartile:** 1 | **Citations:** 3  
**DOI:** 10.1371/journal.pone.0166056
- A low-power SHA-3 designs using embedded digital signal processing slice on FPGA** 2016  
*Dur-E-Shahwar Kundi Arshad Aziz*  
*Computers & Electrical Engineering*, Volume 55, Pages 138-152  
**Impact Factor:** 1.57 | **Quartile:** 3 | **Citations:** 20  
**DOI:** 10.1016/j.compeleceng.2016.04.004
- A high performance ST-Box based unified AES encryption/decryption architecture on FPGA** 2016  
*Dur-E-Shahwar Kundi Arshad Aziz Nassar Ikram*  
*Microprocessors and Microsystems*, Volume 41, Pages 37-46  
**Impact Factor:** 1.025 | **Quartile:** 3 | **Citations:** 24  
**DOI:** 10.1016/j.micpro.2015.11.015
- A FPGA based Reconfigurable 2D Filter Architecture for Biomedical Image Preprocessing** 2016  
*Arshad Aziz Majida Kazmi Pervez Akhtar Nassar Ikram*  
*Caspian Journal of Applied Sciences Research*, Vol.5(2), Pages 1-10  
**Impact Factor:** -  
**DOI:** NA
- Resource Efficient Implementation of the Keccak, Skein & JH Algorithms on a Reconfigurable Platform** 2016  
*Arshad Aziz Dur-e-Shahwar Kundi Kashif Latif*  
*Cankaya University Journal of Science and Engineering*, Volume 13, No. 1, Pages 40-57  
**Impact Factor:** 0  
**DOI:** <https://dergipark.org.tr/en/pub/cankujse/issue/31481/368620>
- Implementation of T-box/T-1-Box Based AES Design on Latest Xilinx FPGA** 2015  
*Arshad Aziz Dur-e-Shahwar Kundi*  
*Mehran University Research Journal of Engineering and Technology*, Volume 35, Issue 4, Pages 441-446  
**Impact Factor:** -  
**DOI:** 10.22581/muet1982
- A Robust Wavelet Based Digital Image Watermarking Technique Using FPGA** 2015  
*Arshad Aziz Zareen Tabassum Majida Kazmi Saad Ahmed Qazi*

**Impact Factor:** -

**DOI:** <https://doi.org/10.22581/MUET1982>

- Area Efficient S-Box Approach for SubByte Transformation in AES** 2015  
*Arshad Aziz Dur-e-Shawar Kundi Saleha Zaka*  
*Mehran University Research Journal of Engineering and Technology*, Volume 34, Issue S1, Pages 63-68  
**Impact Factor:** 0  
**DOI:** 10.22581/muet1982
- Logically Grouped Reduced-set Implementation of SHA3-256 on FPGA** 2015  
*Arshad Aziz Dur-e-Shahwar Kundi*  
*Mehran University Research Journal of Engineering and Technology*, Volume 34, Issue S1, Pages 13-20  
**Impact Factor:** -  
**DOI:** 10.22581/muet1982
- An efficient single unit T-box/T-1-box implementation for 128-bit AES on FPGA** 2015  
*Dur e Shahwar Arshad Aziz Majida Kazmi*  
*Security and Communication Networks*, Volume 8, Issue 9, Pages 1725-1731  
**Impact Factor:** 0.806 | **Quartile:** 3 | **Citations:** 5  
**DOI:** 10.1002/sec.1138
- FPGA Based Compact and Efficient Full Image Buffering for Neighborhood Operations** 2015  
*Majida Kazmi Arshad Aziz Pervez Akhter Dur-E-Shahwar Kundi*  
*Advances in Electrical and Computer Engineering*, Volume 15, Issue 1, Pages 95-104  
**Impact Factor:** 0.459 | **Quartile:** 4 | **Citations:** 6  
**DOI:** 10.4316/AECE.2015.01014
- FPGA Implementation of Advance Encryption Standard Using Xilinx System Generator** 2014  
*Arshad Aziz Alia Arshad Kanwal Aslam Dur-e-Shahwar Kundi*  
*Asian Journal of Applied Sciences*, Volume 02, Issue 02, Pages 190-198  
**Impact Factor:** -  
**DOI:** <https://www.ajouronline.com/index.php/AJAS/article/view/1136>
- Comparison between FPGA Logic Resources and Embedded Resources Used By Discrete Arithmetic (DA) Architecture to Design FIR Filter** 2014  
*Arshad Aziz Irfan Ahmed Usmani Muzaffar Rao Razia Zia*  
*International Journal of Scientific Engineering and Technology*, Volume No.3 Issue No.4, Pages 440-443  
**Impact Factor:** -  
**DOI:** <http://www.ijset.com/publication/v3/095.pdf>
- Area Efficient Implementation of MTI Processing Module on a Reconfigurable Platform** 2014  
*Arshad Aziz Munaza Yousuf Riaz Mahmud*  
*Chinese Journal of Engineering*, Volume 2014, Article ID 167184, 7 pages  
**Impact Factor:** -  
**DOI:** <https://doi.org/10.1155/2014/167184>
- Reduced Precision Redundancy for Satellite Telecommand Receiver Module on FPGA** 2013  
*Arshad Aziz Salman Sadruddin*  
*Chinese Journal of Engineering*, Volume 2013, Article ID 453872, 8 pages  
**Impact Factor:** -  
**DOI:** <https://doi.org/10.1155/2013/453872>
- Xilinx System Generator® Based Implementation of a Novel Method of Extraction of Nonstationary Sinusoids** 2013  
*Arshad Aziz Muhammad Abubakar Pervez Akhtar*  
*Journal of Signal and Information Processing*, Volume 4, No. 3B, Pages 7-13  
**Impact Factor:** 0  
**DOI:** 10.4236/jsip.2013.43B002
- Efficient Hardware Implementation of SHA-3 Candidate Grostl using FPGA** 2012  
*Arshad Aziz Syed Muhammad Adnan*  
*International Journal of Computer Applications*, Volume 55, No.15, Pages 6-11  
**Impact Factor:** -  
**DOI:** <https://www.ijcaonline.org/archives/volume55/number15/8829-2963>

<p><b>Look-Up Table Based Implementations of SHA-3 Finalists: JH, Keccak and Skein</b>  <i>Kashif Latif Arshad Aziz Athar Mahboob</i>  <i>KSI Transactions on Internet and Information Systems</i>, Vol. 6, No.9  <b>Impact Factor:</b> 0.56   <b>Quartile:</b> 3  <b>DOI:</b> 10.3837/tiis.2012.09.024</p>	2012
<p><b>Hardware Performance Evaluation of SHA-3 Finalists - Blake, Keccak and Skein</b>  <i>Kashif Latif Arshad Aziz Athar Mahboob</i>  <i>Arab Gulf Journal of Scientific Research</i>, Volume 30, Issue 1, Pages 14-22  <b>Impact Factor:</b> 0.047   <b>Quartile:</b> 4</p>	2012
<p><b>High Throughput Hardware Implementation of Secure Hash Algorithm Skein-256</b>  <i>Arshad Aziz Kashif Latif Muhammad Tariq Athar Mahboob</i>  <i>International Journal of Academic Research</i>, Vol. 3, No. 6, Part I, Pages 200-206  <b>Impact Factor:</b> 0  <b>DOI:</b> NA</p>	2011
<p><b>Efficient Software Implementation of Secure Hash Algorithm (Sha-3) Candidate-Skein</b>  <i>Arshad Aziz Kashif Latif Muhammad Tariq Athar Mahboob</i>  <i>International Journal of Academic Research</i>, Vol. 3. No. 6, Part II  <b>Impact Factor:</b> -  <b>DOI:</b> NA</p>	2011
<p><b>Optimal utilization of available reconfigurable hardware resources</b>  <i>Kashif Latif Arshad Aziz Athar Mahboob</i>  <i>Computers &amp; Electrical Engineering</i>, Volume 37, Issue 6, Pages 1043-1057  <b>Impact Factor:</b> 0.837   <b>Quartile:</b> 3   <b>Citations:</b> 10  <b>DOI:</b> 10.1016/j.compeleceng.2011.07.010</p>	2011
<p><b>Some Aspects of Deposition Parameters of RF Sputtered Ferromagnetic Film Germane to the Study of Magnetoresistive Sensing Devices</b>  <i>Arshad Aziz Pervez Akhtar Tariq Javid Ali</i>  <i>Advanced Materials Research</i>, Vol. 264-265, Pages 160-165  <b>Impact Factor:</b> -   <b>Citations:</b> 1  <b>DOI:</b> <a href="https://doi.org/10.4028/www.scientific.net/AMR.264-265.160">https://doi.org/10.4028/www.scientific.net/AMR.264-265.160</a></p>	2011
<p><b>Resource efficient implementation of T-Boxes in AES on Virtex-5 FPGA</b>  <i>Dur-E-Shahwar Kundi Arshad Aziz Nassar Ikram</i>  <i>Information Processing Letters</i>, Volume 110, Issue 10, Pages 373-377  <b>Impact Factor:</b> 0.612   <b>Quartile:</b> 4   <b>Citations:</b> 14  <b>DOI:</b> 10.1016/j.ipl.2010.03.004</p>	2010
<p><b>An FPGA Based AES-CCM Crypto Core for IEEE 802. 11i Architecture</b>  <i>Arshad Aziz Nassar Ikram</i>  <i>International Journal of Network Security (IJNS)</i>, Vol.5, No.2, Pages 224-232  <b>Impact Factor:</b> -  <b>DOI:</b> 10.6633/IJNS</p>	2007
<p><b>Memory efficient implementation of AES S-BOXES on FPGA</b>  <i>Arshad Aziz Nassar Ikram</i>  <i>Journal of Circuit Systems and Computers</i>, Volume 16, Issue 4, Pages 603-611  <b>Impact Factor:</b> 0.13   <b>Quartile:</b> 4   <b>Citations:</b> 17  <b>DOI:</b> 10.1142/S0218126607003873</p>	2007

## Conference Proceedings

<p><b>Segmented Region Based Reconstruction of Magnetic Resonance Image</b>  <i>Arshad Aziz Muhammad Faris Tariq Javed Sajjad Rizvi</i>  2021 <i>International Conference on Computer &amp; Information Sciences (ICCOINS)</i>, res.country(157,)  <b>Citations:</b> N/A  <b>DOI:</b> 10.1109/ICCOINS49721.2021.9497166</p>	2021
<p><b>Non Sub-sampled Contourlet Transform based Feature Extraction technique for Differentiating Glioma Grades using MRI Images</b>  <i>Arshad Aziz Razia Zia Pervez Akhtar Maroof Ali Shah Dur-e-Shahwar Kundi</i></p>	2017

- 30th Australasian Joint Conference on Artificial Intelligence, res.country(13,)  
**Citations:** N/A  
**DOI:** [https://doi.org/10.1007/978-3-319-63004-5\\_23](https://doi.org/10.1007/978-3-319-63004-5_23)
- A FPGA Based Two Level Optimized Local Filter Design for High Speed Image Processing Applications** 2016  
*Arshad Aziz Majida Kazmi Pervez Akhtar Nassar Ikram*  
*International Conference on Advances in Information and Communication Technology, res.country(241,)*  
**Citations:** N/A  
**DOI:** [https://doi.org/10.1007/978-3-319-49073-1\\_5](https://doi.org/10.1007/978-3-319-49073-1_5)
- FPGA based efficient architecture for image watermarking using Wavelet Co-efficients Quantization** 2014  
*Arshad Aziz Jamal Ahmed Pervez Akhtar*  
*International Conference on Open Source Systems and Technologies (ICOSST), res.country(177,)*  
**Citations:** N/A  
**DOI:** [10.1109/ICOSST.2014.7029329](https://doi.org/10.1109/ICOSST.2014.7029329)
- Compact Implementation of SHA3-512 on FPGA** 2014  
*Arshad Aziz Alia Arshad Dur-e-Shahwar Kundi*  
*IEEE Conference on Information Assurance and Cyber Security (CIACS), res.country(177,)*  
**Citations:** N/A  
**DOI:** [10.1109/CIACS.2014.6861327](https://doi.org/10.1109/CIACS.2014.6861327)
- Compact hardware implementation of SHA-3 finalist blake on FPGA** 2013  
*Arshad Aziz Muhammad Arsalan Muhammad Ata-ur-Rehman Nasir Mehmood*  
*IEEE 9th International Conference on Emerging Technologies, res.country(177,)*  
**Citations:** N/A  
**DOI:** [10.1109/ICET.2013.6743547](https://doi.org/10.1109/ICET.2013.6743547)
- Software implementation of Standard Hash Algorithm (SHA-3) Keccak on Intel core-i5 and Cavium Networks Octeon Plus embedded platform** 2013  
*Arshad Aziz Aisha Malik Dur- e-Shahwar Kundi Moiz Akhter*  
*2nd Mediterranean Conference on Embedded Computing (MECO), res.country(156,)*  
**Citations:** N/A  
**DOI:** [10.1109/MECO.2013.6601323](https://doi.org/10.1109/MECO.2013.6601323)
- Simulation design of an efficient MTI processing module for embedded platform** 2013  
*Arshad Aziz Munaza Yousuf Riaz Mahmud*  
*2nd Mediterranean Conference on Embedded Computing (MECO), res.country(156,)*  
**Citations:** N/A  
**DOI:** [10.1109/MECO.2013.6601322](https://doi.org/10.1109/MECO.2013.6601322)
- Implementation of SHA-3 Candidate Skein on Two Unexplored Multiprocessor Platforms** 2013  
*Arshad Aziz Aisha Malik Abdul Qadeer*  
*International Conference on Sensor Network Security Technology and Privacy Communication System, res.country(48,)*  
**Citations:** N/A  
**DOI:** [10.1109/SNS-PCS.2013.6553863](https://doi.org/10.1109/SNS-PCS.2013.6553863)
- Low-cost Machine Vision System for dimension measurement of fast moving conveyor products** 2012  
*Arshad Aziz Muhammad Arsalan*  
*International Conference on Open Source Systems and Technologies, res.country(177,)*  
**Citations:** N/A  
**DOI:** [10.1109/ICOSST.2012.6472822](https://doi.org/10.1109/ICOSST.2012.6472822)
- Resource efficient and area optimized Grstl implementation on FPGA** 2012  
*Arshad Aziz Syed Muhammad Adnan*  
*International Conference on Open Source Systems and Technologies, res.country(177,)*  
**Citations:** N/A  
**DOI:** [10.1109/ICOSST.2012.6472835](https://doi.org/10.1109/ICOSST.2012.6472835)
- Comparative Analysis of High Speed and Low Area Architectures of Blake SHA-3 Candidate on FPGA** 2012  
*Arshad Aziz Muhammad Arsalan*  
*10th International Conference on Frontiers of Information Technology (FIT), res.country(177,)*  
**Citations:** N/A  
**DOI:** [10.1109/FIT.2012.51](https://doi.org/10.1109/FIT.2012.51)

- Medical image denoising based on adaptive thresholding in contourlet domain** 2012  
*Arshad Aziz Majida Kazmi Pervez Akhtar Aliza Maftun Wasay Bin Afaq*  
*5th International Conference on BioMedical Engineering and Informatics (BMEI 2012)*, res.country(48,)  
**Citations:** N/A  
**DOI:** 10.1109/BMEI.2012.6512939
- Compact Implementation of Skein-256 Hash Function on FPGA** 2012  
*Arshad Aziz Dur-e-Shahwar Kundi*  
*Spring Congress on Engineering and Technology*, res.country(48,)  
**Citations:** N/A  
**DOI:** 10.1109/SCET.2012.6342053
- Efficient Hardware Implementations and hardware performance Evaluation of SHA-3 Finalists** 2012  
*Kashif Latif M Muzaffar Rao Athar Mahboob Kashif Latif M Muzaffar Rao Athar Mahboob Arshad Aziz Kashif Latif M Muzaffar Rao Athar Mahboob*  
*3rd SHA3 Candidate Conference*, res.country(233,)  
**Citations:** N/A  
**DOI:** NA
- High Throughput Hardware Implementation of Secure Hash Algorithm (SHA-3) Finalist: BLAKE** 2011  
*Arshad Aziz Kashif Latif Athar Mahboob*  
*IEEE 9th International Conference on Frontier in Information Technology*, res.country(177,)  
**Citations:** N/A  
**DOI:** 10.1109/FIT.2011.42
- FPGA Based Higher Quality Video Acquisition System** 2011  
*Arshad Aziz Jamal Ahmed Muhammad Faisal*  
*26th IEEE Annual Multi-topic International Symposium (SIMTS-2011)*, res.country(177,)  
**Citations:** N/A  
**DOI:**  
<https://ieeepkhi.org/studentseminar/doc/MATLAB%20Simulation%20of%20a%20Variable%20Speed%20Controller%20for%20a%20Three%20Phase%20Induction%20Motor.pdf>
- MATLAB Simulation of a Variable Speed Controller for a Three Phase Induction Motor** 2011  
*Arshad Aziz Shezana Zulfiqar Ali Azka Khalil Sumayyah Waheed*  
*26th IEEE Students' Seminar*, res.country(177,)  
**Citations:** N/A  
**DOI:** NA
- A Unified Approach to Secure and Robust Hashing Scheme for Image and Video Authentication** 2010  
*Arshad Aziz Nighat Jamil*  
*3rd International Conference on Image and Signal Processing*, res.country(48,)  
**Citations:** N/A  
**DOI:** 10.1109/CISP.2010.5648278
- Efficient resource utilization of FPGAs** 2009  
*Arshad Aziz Kashif Latif Athar Mahboob*  
*6th International Conference on Frontiers of Information Technology*, res.country(177,)  
**Citations:** N/A  
**DOI:** <https://doi.org/10.1145/1838002.1838031>
- A Framework for Secure Access to Medical Images** 2009  
*Arshad Aziz Tariq Javid Ali Pervez Akhtar*  
*International Conference on Bioinformatics, Computational Biology, Genomics and Chemoinformatics*, res.country(233,)  
**Citations:** N/A  
**DOI:** <https://ieeexplore.ieee.org/Xplore/home.jsp>
- A Compact AES Encryption Core on Xilinx FPGA** 2008  
*Arshad Aziz Dur-e-Shahwar Kund Saleha Zaka Qurat-Ul-Ain*  
*2nd IEEE International Conference on Computer, Control and Communication*, res.country(177,)  
**Citations:** N/A  
**DOI:** 10.1109/IC4.2009.4909251
- An Efficient Software Implementation of AES-CCM for IEEE 802.11i Wireless St** 2007  
*Abdul Samiah Arshad Aziz Nassar Ikram*  
*31st Annual International Computer Software and Applications Conference (COMPSAC 2007)*, res.country(48,)

Citations: N/A

DOI: 10.1109/COMPSAC.2007.62

**An Efficient Software Implementation of AES-CCM for IEEE 802.11i Wireless Standard**

2007

*Arshad Aziz Abdul Samiah Nassar Ikram*

*2nd IEEE International Workshop on Security Trust, and Privacy for Software Applications (STPSA 2007), res.country(48,)*

Citations: N/A

DOI: 10.1109/COMPSAC.2007.62

**An efficient FPGA based sequential implementation of advanced encryption standard**

2005

*Arshad Aziz Nassar Ikram*

*3rd International Conference on Information and Communications Technology, res.country(65,)*

Citations: N/A

DOI: 10.1109/ITICT.2005.1609673

## Intellectual Property

---

### Copyrights

**SMART WEARABLE DEVICE FOR IMPROVING HUMAN POSTURE**

2021

Status: Filed

### Patents

**SMART WEARABLE DEVICE FOR IMPROVING HUMAN POSTURE**

2021

Status: Filed

### Industrial Designs

### Trademarks