



## Institute of Business & Technology (IBT)

**Institute of Business & Technology (IBT)**  
Main Ibrahim Hyderi Road, Korangi Creek, Karachi. 75190, Pakistan  
UAN : (92-21) 111-428-428 Fax No : (92-21) 35091930  
E-Mail: ibtjbs@ibt.edu.pk URL: www.ibt.edu.pk

JOURNAL OF INFORMATION & COMMUNICATION TECHNOLOGY Vol 10, No.2

INSTITUTE OF BUSINESS & TECHNOLOGY

# JOURNAL OF INFORMATION & COMMUNICATION TECHNOLOGY

A PUBLICATION OF THE FACULTY OF COMPUTER SCIENCES

Dec 2016

VOLUME 10

NUMBER 02

ISSN 2409-6520

---

### **A Survey on Optical Character Recognition System**

Noman Islam, Zeeshan Islam, Nazia Noor

### **Localization System Based on User's Similar Trajectories Measurement over Road Network Model**

Riaz Ahmed Shaikh, Imran Memon, Qasim Ali Arain, Deedar Ali Jamro, Hina Memon

### **IT Project Management Techniques for E-Commerce Site for online Book Sales**

Zaira Hassan, Zeeshan Bhatti, Kamran Taj Pathan, Asad Ali Shaikh

### **Performance Analysis of Single Mono-Crystalline Photovoltaic Cell using Ultra- Violet Glass**

Soobia Saeed, Muhammad Mansoor Alam, Syed Mehmood Raza Naqvi

### **Real Time Monitoring of an Efficient Water Reservoir System Based On WSN (Wireless Sensor and Actuator Network)**

Muhammad Saleem, SidraGul, UmarKhan, AliAkbarSiddiqui, M.TahirQadri

### **Anatomization of Clustering of Iris Data implemented using Genetic Algorithm**

Sajid Saleem, Syed Nazeer Alam

### **Mobile Based Jamshoro City Location Service (JCLS)**

Jawad Awan, Shahzad Memon, Zulfiqar Bhutto, Waqar Awan

### **Wireless Monitoring Technologies for Renewable Energy Systems**

Nisar Memon, Shahzad Memon, Raza Hussain Shah, Asim Tanweri

### **Novel Monopole Antenna with H-Slot for RCS Reduction Applications**

Deedar Ali Jamro, Farman Ali Mangi, Imran Memon, Riaz Ahmed Shaikh, Saeed Ahmed Khan

### **User Privacy Protection Based On Road Network Model for Location Based Services**

Qasim Ali Arain, Riaz Ahmed Shaikh, Hina Memon

### **Context Aware Computing Used For Education and Communication of People with Special Needs: Focus on Deaf and Dumb**

Syed Asif Ali, Sumaira Hussain, Basit Hasan

---



**Institute of Business & Technology**

**Journal of Information &  
Communication Technology**  
**Volume 10 Issue 2**

# **JOURNAL OF INFORMATION & COMMUNICATION TECHNOLOGY**

## **AIMS & SCOPE**

Journal of Information & Communication Technology examines a wide variety of contemporary issues in information technology and computer sciences. Published for executives, researchers and scholars alike, the Journal aids the application of empirical research to practical situations and theoretical findings to the reality of the technological world.

The scope of the journal includes the all the contemporary issues of computer sciences and its sub fields. Unpublished papers and extended versions of papers presented at conferences may be submitted for possible publications in JICT. Responsibility for the content of a paper rests upon the authors and not upon the editors or the publishers.

# **JOURNAL OF INFORMATION & COMMUNICATION TECHNOLOGY**

## **ABOUT THE JOURNAL**

Journal of Information & Communication Technology is a biannual journal in the field of Computer Science and Information Technology that offers platform for researchers, scholars & scientist to publish their original and to date research of high scientific value. It is a double blind peer review open access academic journal, published bi-annually by Institute of Business & Technology (IBT). Articles published in the journal illustrate innovations, development and achievements in the field of Computer Science and Information Technology. The journal is being published electronically as well as in print form.

# **JOURNAL OF INFORMATION & COMMUNICATION TECHNOLOGY**

## **DISCLAIMER**

Facts and opinions in articles published on Journal of Information & Communication Technology are solely the personal statements of respective authors. Authors are responsible for all contents in their article(s) including accuracy of the facts, statements, citing resources, and so on. Editors disclaim any liability of violations of other parties' rights, or any damage incurred as a consequence to use or apply any of the contents of Journal of current research in science. Material submitted to JICT must be original and not published or submitted for publication elsewhere. Authors submitting a contribution to JICT who have related material under consideration or in press elsewhere should upload a clearly marked copy at the time of submission and draw the editor's attention to it in their cover letter. If a part of a contribution that an author wishes to submit to JICT has appeared or will appear elsewhere, the author must specify the details in the cover letter. Consideration by the JICT is possible if the main result, conclusion, or implications are not apparent from the other work, or if there are other factors, for example if the other work is published in a language other than English. Author is responsible to get permission from previous publisher or copyright holder if an author is re-using any part of paper (i.e. figure or figures) published elsewhere, or that is copyrighted. The editors consider all material in good faith that their journals have full permission to publish every part of the submitted material including illustrations.

# Contents

- 1-4 A Survey on Optical Character Recognition System  
Noman Islam, Zeeshan Islam, Nazia Noor
- 5-14 Localization System Based on User's Similar Trajectories Measurement over Road Network Model  
Riaz Ahmed Shaikh, Imran Memon, Qasim Ali Arain, Deedar Ali Jamro, Hina Memon
- 15-18 IT Project Management Techniques for E-Commerce Site for online Book Sales  
Zaira Hassan, Zeeshan Bhatti, Kamran Taj Pathan, Asad Ali Shaikh
- 19-25 Performance Analysis of Single Mono-Crystalline Photovoltaic Cell using Ultra- Violet Glass  
Soobia Saeed, Muhammad Mansoor Alam, Syed Mehmood Raza Naqvi
- 26-29 Real Time Monitoring of an Efficient Water Reservoir System Based On WSN  
(Wireless Sensor and Actuator Network)  
Muhammad Saleem, SidraGul, UmarKhan, AliAkbarSiddiqui, M.TahirQadri
- 30-33 Anatomization of Clustering of Iris Data implemented using Genetic Algorithm  
Sajid Saleem, Syed Nazeer Alam
- 34-40 Mobile Based Jamshoro City Location Service (JCLS)  
Jawad Awan, Shahzad Memon, Zulfiqar Bhutto, Waqar Awan
- 41-46 Wireless Monitoring Technologies for Renewable Energy Systems  
Nisar Memon, Shahzad Memon, Raza Hussain Shah, Asim Tanweri
- 47-49 Novel Monopole Antenna with H-Slot for RCS Reduction Applications  
Deedar Ali Jamro, Farman Ali Mangi, Imran Memon, Riaz Ahmed Shaikh, Saeed Ahmed Khan
- 50-55 User Privacy Protection Based On Road Network Model for Location Based Services  
Qasim Ali Arain, Riaz Ahmed Shaikh, Hina Memon
- 56-58 Context Aware Computing Used For Education and Communication of People with  
Special Needs: Focus on Deaf and Dumb  
Syed Asif Ali, Sumaira Hussain, Basit Hasan

## INSTRUCTIONS TO AUTHORS

Author(s) are requested to please carefully read all the instructions before submitting a manuscript to the *Journal of Information & Communication Technology* (JICT). Manuscripts not prepared as per below mentioned specifications may be returned to the author(s) and may experience significant delays in review and time to publication.

### MANUSCRIPT SUBMISSION

Three hard copies of manuscripts of articles, comments, notes or book-reviews, should be submitted to

The Editor  
Journal of Information & Communication Technology  
Institute of Business and Technology (IBT)  
Main Ibrahim Hydri Road, Korangi Creek  
Karachi-75190 Pakistan

### Submissions

All manuscripts for the Journal of Information & communication Technology should be submitted electronically through email to the editor at [jict@ibt.edu.pk](mailto:jict@ibt.edu.pk). Manuscripts should be prepared in US English using a word processing (preferably in MS Word) program and saved as a .doc or .rtf file. The attached file should be named according to the title of your article and it should mention '**Research paper submission**' in the subject of the email.

After receiving the research article, acknowledgement will sent within a few days after the receipt of the paper.

### GUIDELINES FOR AUTHORS

#### MANUSCRIPT SPECIFICATIONS

##### Title Page

This page should contain the full title of the paper and complete names, affiliations, addresses, phone and fax numbers, and e-mail addresses of all authors. The contact author should be indicated.

##### Abstract

The abstract must be a concise yet comprehensive reflection of what is in your article. In particular:

- The abstract must be self-contained, without abbreviations, footnotes, or references. It should be a microcosm of the full article.
- The abstract must be between 150-250 words. Be sure that you adhere to these limits; otherwise, you will need to edit your abstract accordingly.
- The abstract must be written as one paragraph, and should not contain displayed mathematical equations or tabular material.
- The abstract should include three or four different keywords or phrases, as this will help readers to find it. It is important to avoid over-repetition of such phrases as this can result in a page being rejected by search engines.

##### Keywords

All papers must contain keywords or index terms. They are provided by the authors. They should be provided in alphabetical order and as a final paragraph of the abstract section.

##### Illustrations and multimedia

The Proceedings is eager to publish color illustrations, especially in those cases where color enhances technical details and understanding; there is no additional cost to the author for publishing color figures.

Image quality is very important in how the graphics will reproduce. IBT accepts PostScript (PS), Encapsulated PostScript (EPS), Portable Document Format (PDF), Portable Network Graphics (PNG), or Tagged Image File Format (TIFF) for graphics submissions. Only when graphic was originally drawn in the program is it acceptable to submit Microsoft Office Documents (DOC, PPT, XLS). High-resolution JPGs are acceptable for author photos only.

Detailed instructions and frequently asked questions about graphic and multimedia submissions can be found at the following URLs.

##### Photographs and biographies

Authors' photographs and biographies are published in conjunction with papers. They can be provided after acceptance of a paper. Biographies should not exceed 200 words.

##### Contact Us

##### The Editor

Journal of Information & Communication Technology  
Institute of Business and Technology (IBT)  
Main Ibrahim Hydri Road, Korangi Creek  
Karachi-75190 Pakistan  
**URL:** [www.ibt.edu.pk](http://www.ibt.edu.pk)  
**Email:** [jict@ibt.edu.pk](mailto:jict@ibt.edu.pk)

# Journal of Information & Communication Technology

Editor in chief

*Dr. Mehmood Raza Naqvi*

Dean of Computer Science & IT  
Institute of Business and Technology (IBT)

Editor

*Prof. Dr. Asad Ali Shaikh*

Associate Dean Faculty of Computer Sciences & IT  
Institute of Business and Technology (IBT)

Assistant Editor

*Ms. Soobia Saeed*

Senior Lecturer  
Institute of Business and Technology (IBT)

---

## EDITORIAL COMMITTEE

<i>Dr. Sadiq</i>	University of Karachi, Pakistan
<i>Dr. Waqar Saleem</i>	Habib University, Pakistan
<i>Dr. Mansoor Alam</i>	Institute Of Business Management-IOBM, Pakistan
<i>Dr. Shahzad Memon</i>	University of Sindh, Pakistan
<i>Dr. Kamran Taj pathan</i>	University of Sindh, Pakistan
<i>Dr. shahid Hussain</i>	Usman Institute of Technology-UIT, Pakistan
<i>Ms. Nasreen Jawaid</i>	Institute of Business & Technology-IBT, Pakistan
<i>Mr. Noman Zahid</i>	Institute of Business & Technology, Pakistan
<i>Mr. Waqas Siddiqui</i>	Institute of Business & Technology-IBT, Pakistan

---

## ADVISORY COMMITTEE

<i>Dr. Yousuf Khan</i>	Iqra University, Pakistan
<i>Dr. Athar Mahboob</i>	DHA Suffa University, Pakistan
<i>Dr. Bisharat Rasool Memon</i>	University of Southern Denmark, Denmark
<i>Zohaib Sajid</i>	Institute of Business & Technology- IBT, Pakistan
<i>Danish Anwar</i>	Institute of Business & Technology- IBT, Pakistan
<i>Dr. Aysh Alhroob</i>	Isra University, Jordan
<i>Dr. Tariq Rahim Soomro</i>	Shaheed Zulfikar Ali Bhutto, Institute of Science and Technology, UAE

---

Design & Layout

*Mr. Owais Saleem*

*Mr. Muhammad Hamza*



## Journal of Information & Communication Technology

### NATIONAL REFEREES

<i>Dr. M. Tahir Qadri</i>	Sir Syed University of Engineering & Technology
<i>Dr. Atta-Ur- Rehman Khan</i>	COMSATS Institute of Information Technology
<i>Dr. Mustansar Ali Ghazanfar</i>	"University of Engineering and Technology, Taxila"
<i>Dr. Muhammad Arif Hussain</i>	Mohammad Ali Jinnah University
<i>Dr. Syed Faisal Ahmed Bukhari</i>	Sir Syed University of Engineering & Technology
<i>Dr. Rizwan Atktar</i>	Comsats IIT Attock Campus
<i>Dr. Muhammad Sarim</i>	Federal Urdu University of Art, Science & Technology
<i>Dr. Noman Islam</i>	Indus University, Pakistan
<i>Dr. Syed Nazeer Alam</i>	National University of Sciences and Technology (NUST)
<i>Dr. Muhammad waseem</i>	Uman Institute of Technology
<i>Dr. Zia Mohyd</i>	Sir Syed University of Engineering & Technology
<i>Dr. Muhammad Aamir</i>	Sir Syed University of Engineering & Technology
<i>Dr. Shazia Abbasi</i>	University of Sindh , Pakistan
<i>Dr. Zeeshan Bhatti</i>	University of Sindh , Pakistan
<i>Ms. Asifa Bhitti</i>	University of Sindh , Pakistan
<i>Dr. Ghulam Mustufa shah</i>	University of Sindh , Pakistan
<i>Dr. Abdul Waheed Mahesar</i>	University of Sindh , Pakistan
<i>Dr. Akhtar Ali Jalbani</i>	Sindh Agriculture University Tandojam

### INTERNATIONAL REFEREES

<i>Dr. Syed Misbahuddin</i>	Umm Al- Qura University, Saudi Arabia
<i>Dr. Muneer Ahmed</i>	King Faisal University, Damam, Saudi Arabia
<i>Dr. Syed Abdul Moiz</i>	Umm Al Qura University, Saudi Arabia
<i>Dr. Sajid Iqbal</i>	Harbin Institute of Technology (HIT), China
<i>Dr. Ali Raza Soomro</i>	International Islamic university Malaysia
<i>Dr. Abdul Raouf Khan</i>	King Faisal University, Damam, Saudi Arabia
<i>Dr. Hassan wahba</i>	Emirates College for Management and IT, UAE
<i>Dr. Asadullah shah</i>	International Islamic university, Malaysia
<i>Dr. M.N. Brohi</i>	Shaheed Zulfikar Ali Bhutto Institute of Science and Technology, UAE
<i>Dr. Ali Tufail</i>	Islamic University of Madinah, Saudi Arabia
<i>Dr. Shafiqat Rehman</i>	Ankara Yildirim Beyazit University , Turkey
<i>Dr. Muhammad Zahid Tunio</i>	Beijing University of post & Telecommunication, china
<i>Dr. Adbdul Qadar, Kara</i>	King Fahad university for petroleum & minerals, saudi arabia
<i>Dr. Sarfraz Nawaz Brohi</i>	Taylor's University, Malaysia



# Institute of Business & Technology

## Call for Papers

### Journal of Information and Communication Technology JICT

This vast world has shrunk into a small village. The Global Village! All barriers have been broken down. Worldwide accessibility has become as simple as talking to your neighbor. Doing business across the world is as simple as logging on your computer. The Internet Technology is not just for games, chatting and occasional research anymore, now it is an essential part of everyday life of every one. A business cannot flourish without becoming a global enterprise and becoming active part of the Global Village. Information and Communication Technology is the vehicle providing the access to the Global Village.

The technology is changing very rapidly because of the advanced features of ICT, AI, Telecommunication, e-commerce, IS, Robotics, Cyber Security, Data Mining, Network Storage Technologies, Software and Hardware Technologies. Now a days the technology becomes obsolete in 12 to 18 months, thus it is imperative for us to keep ourselves updated on the latest developments in ICT or become obsolete and be left out into oblivion. Today the user and the student of ICT must be willing to learn constantly to keep abreast with the technology growth.

JICT is an international Journal of Information and Communication Technology, published by IBT on bi-annual basis. We welcome the submission of articles from researchers, academicians and practitioners in the area of ICT. For instruction to submission of manuscripts, please see the title flap. The papers should be of moderate length for the sake of greater diversity. Please note that submissions should be original contributions and will go through a rigorous evaluation process.

Papers are submitted for JICT Spring issue latest by April and published in August where as the Fall issue last date of submission is November and published in January. However, an early submission will get preference in case of review and publication process.

---

#### The Editor

Journal of Information and Communication Technology

#### Main Campus

Institute of Business & Technology - IBT  
Main Ibrahim Hydri Road, Korangi Creek, Karachi-75190, Pakistan  
E-mail: [jict@ibt.edu.pk](mailto:jict@ibt.edu.pk), UAN: (92-21) 111-428-428, Fax: (92-21) 35092384

UAN: 111-428-428 | URL: [www.ibt.edu.pk](http://www.ibt.edu.pk) | E-mail: [info@ibt.edu.pk](mailto:info@ibt.edu.pk)