

# Future Vision

*Pakistan*

■ **Virtual  
Research  
Center**

■ **Focus on  
Updated Research**

■ **Integrated Centralized  
Lab System Idea**

■ **Radio Over Fiber (RoF)**

■ **Life-Style in COVID-19**



**AND HE IS WITH YOU  
WHEREVER YOU ARE**

*Al Quran[57:4]*

## Letter From The Editor



Dear Readers,

Future Vision Pakistan aims to promote the research & development culture in Pakistan. Students and young researchers can get latest updates in science and technology through this magazine. I hope this magazine will enlighten the creative thinking in our researchers and they can move forward to compete the world of Research & Development.

Again, it is our pleasure to give you the content you deserve. We are working hard day and night to cater to your content needs. May this issue be fruitful to each and everyone. Happy reading!

Sincerely Yours,

**Dr. Rao Kashif**

*Editor In Chief (Future Vision)*

*CEO, Managing Director at*

*Center Of Advance Learning In Research & Development*

*Future is  
vision  
driven*



# *Table of Contents*



*01*

*Letter From  
The Editor*

*02*

*Virtual  
Research  
Center*

*03*

*ANSO  
Scholarship*

*04*

*Integrated Centralized  
Lab System*

*05*

*IEEE Upcoming  
Conferences*

*06*

*Its Your Research  
& Only you need to do  
it*

*07*

*Updated Research  
areas in Wireless  
Communication*

*08*

*Transforming Lifestyle  
during COVID-19*

# ***Centre of Advance Learning in Research and Development***

*Pakistan First Virtual Research Center*



**Center Of Advance Learning in Research & Development**

Centre of Advance Learning in Research & Development is Pakistan's first virtual research centre. Centre was started in 2019 by Dr. Rao Kashif & Dr. Faiza with the aim to promote the Research & Development culture in Pakistan universities & colleges.

CALRD is currently working on the following research areas

(1) Wireless Hybrid Communication

- 6G Network  
(6G network system level designing)
- Visible light communication  
(Hybrid Indoor High speed system design)
- IoT (Internet of things)  
AIOT (Artificial Intelligence of things)

(2) Reproductive Biology

- Oxidative Stress
- Male and Female Reproductive Cancer



## OUR SERVICES

### Science & Technology Surveys



Our research center provides updated surveys in the field of science & technology (Wireless, IoT Smart World, Genetics, Reproductive biology Computer Vision etc.) Our academic & industry experts helps you get the best updated material to your research.

### Master & PhD Research Collaboration



The primary goal of our research center is to provide a platform for young researchers to get involve in leading research areas. If your Master or PhD research falls in the research areas of our center then you are welcome to join our group.

### Professional Talk & Seminars



Researchers are always in need to listen from an expert in their area. We provide professional talk and seminar services to research students which can help them keep their research connected and updated.

#### **For Inquiries**

Email at

[info@calrdintl.com](mailto:info@calrdintl.com)

WhatsApp


03041026343

# Seminars & Webinars

Currently the young researchers in Pakistan are facing numerous issues in their research work. Lack of guidance misdirect them towards outdated research work and which results in failure at the end of their degree. Students and researchers face issues in plagiarism too. First seminar was organized in collaboration with International Islamic institute in Multan. In three session seminar students & researchers were educated about major issues in Research & Development including publishing their work and avoiding plagiarism issues in their thesis and dissertations.

The focus of the seminar was to educate young researchers about:

- (1) Starting their research
- (2) Writing their research
- (3) Presenting their research



**CALRD**.INTL (Pvt) Ltd  
**CENTER OF ADVANCE LEARNING IN RESEARCH  
 AND DEVELOPMENT INTERNATIONAL**

**PAKISTAN 100 SEMINAR & WORKSHOPS PROJECT**  
 For  
 Promoting Research and Development culture in  
 Pakistan

**1st Seminar on research skills  
 development for fresh  
 researchers**

Time & Date	Venue	Speaker
28th November 2019 (Saturday) 2pm to 4pm	Islamic International Institute of Sciences Multan Opposite MEPCO Regional Office Khanewal Road Multan	Dr. Rao Kashif Executive Director CALRD Intl. (Pvt) Ltd

**Seminar Sessions**

**Session 1**

Importance and types of research work.

Research topic selection.

Research and development for Undergraduate and fresh researchers.

**Session 2**

Thesis and Dissertation writing tips.

Avoiding plagiarism.

Presenting your work.

**Session 3**

Selecting right Lab for study abroad.

Preparing research proposal.

Tips for getting Scholarships abroad.

**Registration**

Date	Fee	Registration Includes
11th to 21st Nov 2019	500 Rupees	Seminar Certificates

**Registration process**

**Step 1**

Jazz Cash  
03041026343  
Rao Kashif

or

IIIS Office  
Opposite MEPCO  
Multan  
Mr. Waqas Ahmed

**Step 2**


Send following information to  
CALRD International  
WhatsApp (03041026343)


Student Name:  
Institute Name:  
Degree/Major:  
Payment Picture/ Screenshot:

**Step 3**

CALRD International (Pvt)  
Ltd will send you E-Ticket  
on the same day.


**Collaborating Partner  
For Conducting this  
seminar**







**Contact US:**

Web: [www.calrdintl.com](http://www.calrdintl.com), Email: [info@calrdintl.com](mailto:info@calrdintl.com), Ph # +923360797175 WhatsApp: 03041026343

 **WORLD FERTILITY** *day*

 Center of Advance Learning in Research & Development  
Department of Reproductive Biology



**FERTILITY AWARENESS: MY CHANGING BODY**

Guest / Speaker

**Dr. Faiza Rao**

Postdoctoral Research Scientist at  
Fujian Provincial Key Laboratory Of Reproductive Health Research China

Director at  
Department of Reproductive Biology  
Center Of Advance Learning In Research & Development

Webinar was organized on World Fertility Day entitled “My Body Changing” only for females presented by Dr. Faiza Rao. We discussed about social burdens of fertility on females, main reasons of infertility growth in Pakistani women, female fertility timeline, the risk factors, some of infertility treatments and the major fertility breakthroughs. It was our first step towards educating females about fertility and we encouraged our attendees to further educate other females around themselves.

  
**CALR D**



Detail of previous seminars are  
available on our website

**For Upcoming Seminars  
&  
Webinars**

Please visit  
<https://calrdintl.com/events>





# ANSO

Alliance of International Science Organizations

*China Academy of Sciences (CAS) + 36 Scientific  
Institutions*

## **PhD Scholarship**

Alliance of International Science Organizations (ANSO) was initiated and established by the Chinese Academy of Sciences (CAS) and other 36 scientific institutes as well as international organizations worldwide. ANSO was founded to improve regional and global capacity in science and technology, human livelihoods and wellbeing, and to promote broader S&T cooperation and communication. According to the ANSO Strategic Plan, the ANSO Scholarship for Young Talents (hereinafter referred to as the ANSO Scholarship) is launched for the training and cultivation of young scientists from all over the world.

The ANSO Scholarship provides young students/scholars who are non-Chinese citizens an opportunity to pursue postgraduate education at the colleges or schools of the University of Science and Technology of China (USTC), the University of Chinese Academy of Sciences (UCAS) or institutes of CAS around China. It consists of 2 programs: the master program and the PhD program. Every year, up to 200 master students and 300 PhD students from all over the world will be sponsored to study in CAS. Awardees will receive a monthly stipend from CAS through USTC/UCAS. Specifically, master awardees will receive a monthly stipend of RMB 3000, while PhD awardees will receive a monthly stipend of RMB 6000 or RMB 7000 depending on whether he/she has passed the qualification test arranged by USTC/UCAS for all doctoral candidates after admission. All the awardees will also be provided with health insurance as well as tuition and application fee waivers. A certain amount of travel subsidy from their home countries to China will be provided to the awardees in order to begin the scholarship in China (one trip only per person). Any scholarship awardee on site in China, the host country, at the time of application will NOT be eligible for any travel subsidy

# ANSO Scholarship for Young Talents

For more detail visit  
<https://isa.ustc.edu.cn>

Or

[www.anso.org.cn](http://www.anso.org.cn)



# *Integrated Centralized Lab System*

*Published 10th December 2020*

*Dr. Rao Kashif*



Pakistan is a developing country and number of private/public sector universities are increasing as the young generation is moving towards higher education. Pakistan Engineering Council and Higher Education Commission (HEC) are two highest authorities responsible for the accreditation of degree awarding institutions. Mostly rejections in institute aggregations is not having proper labs. Mostly private sector have labs but lack of government funded projects, while public sector have funding but lack of well equipped labs or professional staff.

Few years back Offices of Research, Innovation and Commercialization (ORIC) department was started in all the universities in Pakistan but except few universities ORIC seems to be a complete failure. One main reason of ORIC failure is lacking of full time staff. ORIC fails in developing International Standards in Research & Development.

Research & Development demands for high standard research in collaboration with universities and industry. Single university research without industry collaboration cant meet high standards. But for Industry collaboration research we need well equipped labs which can cost high to any university. Secondly for such equipments we need highly trained staff too. Research supervisors must be industry experienced people.

One of the best solution can be INTEGRATED CENTERLIZED LAB OR RESEARCH INSTITUTE. Such centers should be formed in all the big cities. In order to make clear understanding we can take an example of Multan city which is considered as biggest education hub in South Punjab. Currently 8 Independent degree awarding universities are registered in which 4 are public sector and 4 private universities .But non of these universities can claim fully well equipped labs in the field of science & technology. How can a researcher work in a limited facility environment? Research is a limitless field. There should be a centralized lab center in a city and all the high standard and well equipped science & technology labs should be setup in that center. Funding should come from all the public & private universities working in city.

Universities will get well equipped labs in half the investment that they need for establishing an individual lab. On the other hand if any university already have a well equipped lab for any science & technology subject then other lab by paying certain Currently such centers are and SINGAPORE. Highly in those centers and that the universities using the utilizing skilled staff.

Establishing such center opportunities to all the universities to contribute lab facilities. All research applied through integrated World is moving towards and we should also organizations and stop

### **Hurdles in Pakistan Research & Development**

- (1) Lack of high standard labs.
- (2) Lack of skilled staff in Public & Private sector University Labs.
- (3) Restricted & complicated research grant procedures in public sector.
- (4) Lack of Industry experienced professionals in research labs.
- (5) Hiring separate staff for ORIC office

universities can use the amount of fee. working in US, CHINA skilled staff will be hired staff can help all centralized. So it is also

can provide equal students in different in research by utilizing grants can also be centralized centers.

such centralized systems start establishing such reinventing the wheel.

If you have a vision or and idea that can help transform our current research & development system then write to us and we can share your idea in Future Vision next edition.

[info@calrdintl.org](mailto:info@calrdintl.org)

# IEEE Upcoming Conference

## 4<sup>th</sup> INTERNATIONAL CONFERENCE ON ENERGY CONSERVATION AND EFFICIENCY (ICECE) 2021

**Conference Dates: 16<sup>TH</sup> -17<sup>TH</sup> MARCH 2021**

Important Dates:

Manuscript Submission deadline: 31<sup>st</sup> December 2021

Acceptance/ Non Acceptance: 15<sup>th</sup> February 2021

Camera Ready Submission: 28<sup>th</sup> Feb 2021



**ICECE 2021**

Energy Conservation - A Smart Choice

Website: [icece.kics.edu.pk](http://icece.kics.edu.pk)

### CALL FOR PAPERS

An IEEE International Conference on Energy Conservation and Efficiency is being organized by Center for Energy Research & Development (CERAD), UET Lahore. The conference is scheduled to be held on 16th & 17th March, 2021 at UET Lahore, New Campus in Kala Shah Kaku, Pakistan in collaboration with IEEE Power & Energy Society (PES), IEEE Industry Application Society (IAS) Lahore Chapter and Al-Khawarizmi Institute of Computer Science (KICS) UET Lahore. The conference is inviting engineers, researchers, energy experts, manufacturers and building designers to meet, discuss, explore and exchange ideas in the rapidly developing domain of energy efficiency and conservation strategies. The demand management and optimization has been recognized as the fastest viable solution for energy situation of developing countries. Therefore, the event will be an excellent networking opportunity for professionals as well as academia together.

Energy Conservation is the best and a timely approach to reduce the demand supply gap. Furthermore, renewable energy integration for clean and green generation has also stimulated energy efficiency techniques to be deployed. This forum will focus more on the perspective of developing countries over a broad range such as energy modelling, smart control, renewable energy, load management, combined heat and power, efficient building designs etc. The conference will mainly cover the following research areas:-



### RESEARCH AREAS

<ul style="list-style-type: none"> <li>1-Energy Conservation in Domestic, Industrial and Commercial Sector</li> <li>2-Domestic Energy Efficient Devices</li> <li>3-Commercial and Industrial Energy Efficient Equipment</li> <li>4-Smart Control system</li> <li>5-Green Building Design</li> <li>6-Efficient Building Envelope Design</li> <li>7-Building Codes and standards</li> <li>8-Energy Management System</li> <li>9-Energy Efficient Heating and Cooling</li> <li>10-Combined heat and power</li> <li>11-Smart Metering System</li> <li>12-Energy efficient Lighting</li> <li>13-Building Management system</li> </ul>	<ul style="list-style-type: none"> <li>14- Energy system modelling</li> <li>15- Water Management</li> <li>16- Waste to Energy Conversion</li> <li>17- Renewable energy Technology</li> <li>18- Efficient Energy Storages</li> <li>19- Efficient Control devices</li> <li>20- Load management and forecasting</li> <li>21- Energy and Environment</li> <li>22- Carbon capture for sustainable environment</li> <li>23- Sustainable Bioenergy Solutions</li> <li>24- COVID-19 impact on energy investments, energy contracts and trade</li> <li>25- Role of Artificial Intelligence and Digitalization in energy</li> <li>26- Public Health and Environmental Policies</li> </ul>
--	---

#### Sponsors



Power & Energy Society



IEEE LAHORE SECTION



IEEE INDUSTRY APPLICATION SOCIETY (LAHORE) 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100

Venue: CERAD  
KSK UET, LAHORE

Contact: Al-Khawarizmi Institute of Computer Science UET, Lahore | Tel: +92-42-99250262 | Email: [icece.info@kics.edu.pk](mailto:icece.info@kics.edu.pk)



# IEEE International Virtual Conference



**RI<sup>2</sup> 2021**  
2021 Research, Invention,  
and Innovation Congress

**June 9–11, 2021**  
Bangkok Thailand

**Platform**  
Hybrid Conference (ONLINE & ONSITE)

KMUTNB



## IMPORTANT DATE

ACTIVITIES	DATE
First announcement	October 2020
Deadline for full paper submission	15 January 2021
Notification of full paper acceptance	15 March 2021
Camera-ready & Registration	15 April 2021

RI<sup>2</sup>C offers opportunity for peer-researchers for submission and presentation of research works in three main categories, including i) Materials Engineering (ME), ii) Electricals and Electronics (EE), and iii) Sustainable Sciences (SS).

Innovative Materials Engineering (IME)	Innovative Electricals and Electronics (IEE)	Innovative Sustainable Sciences (ISS)
<b>Topic:</b> <ul style="list-style-type: none"> <li>Applied Materials</li> <li>Applied Chemistry &amp; Chemical Engineering</li> <li>Health Science and Biomedical Engineering</li> <li>Mechanical Engineering</li> <li>Civil Engineering</li> </ul>	<b>Topic:</b> <ul style="list-style-type: none"> <li>Computing &amp; Information Technology</li> <li>Mathematics &amp; Computational Technology</li> <li>Electrical Engineering</li> <li>Electronic Engineering</li> </ul>	<b>Topic:</b> All areas related to Environment, Energy and Earth Sciences. the Journal covers the technological and scientific aspects as well social and economic matters. major disciplines include: soil sciences, hydrology, geography, energy engineering (production, distribution and storage), renewable energy, sustainable development, natural resource management
<b>Publication Opportunities:</b> Indexed by Scopus	<b>Publication Opportunities:</b> IEEE Xplore Indexed by Scopus	<b>Publication Opportunities:</b> E3S Indexed by SCOPUS

# *Its Your Research*

*& Only you need to do it*

*Published 12th December 2020*  
*Dr. Faiza*

Its better not to do the research work than doing an outdated research. Research centers are always few decades a head from the current trends in market, because the ultimate goal of each researcher is to solve the upcoming issues of society and make the world better place to live.

Unluckily majority of our research students in universities are lacking of such updated research work which can meet the international standards or trends. There are numerous factors effecting the research environment in Pakistan and the top one is selection of wrong or outdated research work. Mostly researchers (Mphil/PhD) select such outdated research because such research work is easily available in market where they can buy the papers thesis & dissertation. This research selling market is so much strong and supportive in Pakistan that the only possible solution to shut it down is by doing

## **Updated Research Work**

### **Master**

Min 2/3 years a head from  
market trends

### **Mphil**

Min 5/8 Years a head from  
market trends

### **PhD**

Min 10 to 15 Years a head from  
market trends

and asking our research students for updated research. Students should consult research institutes and top journals for latest area of research. HEC (Higher Education Commission) should make policies about this issue. There should be a research proposal defense organized by university in collaboration with HEC in order to ensure that the research work which any Mphil or PhD student is going to do meets all the standards and trends. Professors and supervisors should not limit their researchers while selecting the research topics because research is a limitless filed. Even though we are lacking of facilities for some updated research work but that can overcome by collaboration with different national and international research centers.

# Research Topic Service

**Send your research topic to us and our experts will help you to check if your research topic meets the international updated research trends**

## **Contact us**

**WhatsApp: 03041026343  
info@calrdintl.org**

**For more detail visit  
<https://calrdintl.com>**



# *Updated Research areas in Wireless Communication*



## ***Radio over fiber Technology***

6G will be a revolution in communication industry. Integration of current technologies can give this world the most power hybrid communication network in the form of 6G technology. In order to hold the high speed communication we need a strong backhaul system and the best candidate is optical system. Radio over fiber can provide high speed backhaul network multi gigabit systems. Researchers working in the field of communication (Wireless, microwave, information system design & optical communication ) should contribute in the area of radio over fiber (RoF) and contribute in introduction 6G revolution technology to the world. Following research areas can be integrated with RoF technology.

- (A) 6G Active antenna (Fiber to antenna technology).
- (B) Backhaul network system for Fiber to the home (FTTH).
- (C) Backhaul system for high speed RF & Microwave network.

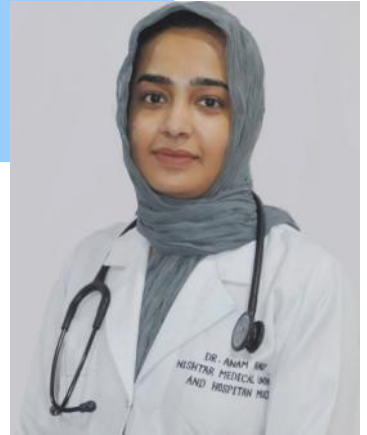
### **Dr. Rao Kashif**

#### Research Interest

- 6G system designing
- Hybrid Comm. systems
- IoT system designing
- RoF system designing

If you are interested in any of the above research then send email at  
**raokashi@ieee.org**

# *Transforming Lifestyle during COVID-19*



*Published 16th December 2020*

*Dr. Anam  
Nishtar Medical University  
And Hospital Multan*

We all know that COVID-19 has impacted all of us in various ways on a global level. The whole society may be feeling scared, concerned and anxious by all the uncertainty and constantly changing alerts about the spread of virus. In order to help you pass these hard times, there are some tips which you can apply in your daily life to take care of your physical and mental health.

## **Make short term goals**

Reset your goals like for next 2 weeks, next 20 days or so, which will keep you motivated.

## **Limit your time of exposure to media**

Media coverage is spreading a fear and anxiety about pandemic. So set a specific time of day to get yourself updated from reliable sources.

## **Healthy life style**

Eat fresh vegetables and fruits. Keep yourself hydrated .

## **Connection to spirituality**

Do your prayers and Recitations of Holy Book daily because it is the main source of mental peace and depression cure.

## **Stay connected with family**

Set times to watch the same TV shows/movies or study with family members. Make some social media groups of family members to stay connected with the one who live out of station.

## **Stop spreading the Virus**

The major role you can play in society now a days is to stop spreading the virus by limiting your exposure with people, Proper disposing of your masks and PPEs, regular hand washing and keeping your self hydrated.



ISSUE 1

December 2020

---

Center of Advance Learning in Research & Development

<http://calrdintl.com>

[info@calrdintl.org](mailto:info@calrdintl.org)