

Riyadh Mirza Born 1954 PhD in laser physics a brief CV

Degrees

- Certificate in leadership and innovation from Keel university 2018
- Phd, MSC in Laser Physics and BSC in Physics.
- Special Courses on Laser and Optics in Al Hazen Research Center from Arizona, California Universities, Imperial College and MIT 1975.

Qualifications:

- 2015 Editor director of the scientific magazine Uruk
- 2009 up now Founded UK-scientific ltd, for laboratory experiments in laser and optics in UK. Owner and director.
- 2005-2012 professor of Fourier optics in the Institute of Laser / University of Baghdad for postgraduate (PhD) course. in (Fourier optics, and fiber optics)
- 2005 up now head and member of PhD and MSc examination boards.
- 1995-2019 Established a Research and Developing Company. Al SALAM Co. Ltd., in Optics, Lasers and Electro-Optics.
- 1989-1995 Head of research in the ministry of industry in Iraq.
- 1978-1989 Central Organization for Standardizations and Quality Control (C.O.S.Q.C .) Baghdad\ head of the Engineering Industries department .
- 1980-1989 Patent evaluator in C.O.S.Q.C .
- 1975-1978 Al Hazen Research Center Baghdad \ Iraq as researcher assistant Works done on lasers, crystal growth, liquid crystals, and holography.
- **Two of the supervisors are Nobel prize winners (Willis Lamb and Ahmad Zuwail)**

Patents:

- Anti-Reflect Screens.
- Mor'e Fringes in Measurements,
- Electro Ejaculation System.

Comities

- OSA optical society of America 1982 to 2015.
- SPIE the International society for Optical Engineering 1982 to 2015. (member and
- Iraqi community for computer sciences 1990-1996.
- Iraqi Comity for Physists and mathematicians 1976.

Books

Published in Arabic

- Principles and applications of lasers (book for secondly schools, win the third award among more than hundred books from the REPUBLIC CHEFF IN IRAQ), published 1990 .
- Programming in BASICS for PCs , published 1987 in Baghdad and Beirut

Translated to Arabic

1. Laser Technology by Hitz contract with Willy .
2. Laser in Medicine by Gregory T. Absten & Stephen N. Joffe Beirut 1988
3. Understanding Laser Technology, by Hitz , Beirut 1992 .

Research lead to prototype:

- holography and speckles in nondestructive testing (NDT)
- holography in data storage (it's the foundation of the CD)
- measurements using laser interferometers

Academic research (at the 2000's)

1. Sundus. Q. Al-Qaisi, Saleh. M. Ali, **Riyadh. A. Mirza** , "Adapted Principal Component Transform (Pct) Method For Restoring Medical & Industrial Images". Fourteenth European Signal Processing Conference Sept. 2006 Italy
2. Sundus Al Qaysi, Saleh M. Ali, **Riyadh A. Mirza**, Ali A. Dawood; " a New Color Restoration Technique for Image Transmitted Through Dusty Media ", International Conference on Advanced Remote Sensing for Earth Observation Systems, Techniques and Application. , Riyadh, KSA, May 2005.
3. **Riyadh A. Mirza**, Sundus Al Qaysi, Saleh M. Ali, , Ali A. Dawood; " a New Suggested Method for Measuring the Contrast of Images Transferred Through Dusty Media ", International Conference on Advanced Remote Sensing for Earth Observation Systems, Techniques and Application. , Riyadh, KSA, May 2005.
4. Mohamed S. Ahmad, **Riyadh A. Mirza**, Dr, Raad A. Kamis , "Speckles in in-plane displacement measurements", 42nd Science Week, the Conference of Laser Science and Applications, Aleppo University, Syria 2002
5. Mohamed S. Ahmad, **Riyadh A. Mirza**, Dr, Raad A. Kamis ; "homogeneity evaluation of transparent plate utilizing speckle phenomenon" , the second Conference of Physics, University of Mousol , 2002.
6. **Riyadh A. Mirza**, Sundus Al Qaysi, " infrared microscope for investigation of documents. the first Conference of Physics, University of Baghdad 2001

7. **Riyadh A. Mirza**, Sundus Al Qaysi, Wassan R. Al Azawi, " Hi Contrast Microscope using CCD camera. the first Conference of Physics, University of Baghdad 2001
8. Riyadh A. Mirza , "Non reflective CRTS" the first Iraqi conference for engineering, 1982. patent

Laboratory establishing:

In Al Hazen research center (participate with researchers from MIT, Arizona, California Universities, and Imperial College) in establishing research laboratories, in laser, optics, communication, holography, crystal growth (water soluble and pulling methods) and liquid crystals.

In the C.O.S.Q.C a team leader with the assistance of the UNDP (UNIDO) to establish a specialized laboratory in quality control in engineering industries.

Research Developed in AL SALAM Co. Ltd., and leaded to production (1995-2005)

- Electroejaculation system (patent),
- Night sighting,
- Thermal imaging
- He-Ne lasers, CO2 lasers, Lasers and Optics Labs.
- Laser for therapy.
- Hi temp. tube lens (with CCD camera to view burners inside steam engine for electric power plant)
- Hi temp. windows for viewing inside cement Furness using CCD cameras
- Using CCD cameras for tracking objects.
- Using CCD camera in measuring the concentricity of circles
- Robotic controlling of CNC machine using PLCs
- PLCs for industrial machines (changing manual ones to automatic)
- Solving long distances communication problems using fiber optics, open space laser or microwave communications, for data transmission and video signals.

Research in UK-scientific ltd to develop experiment sets in photonics, laser and optics. (all in www.uk-scientific.com).

Awards

Win many awards including the former president of Iraq.