

# Dr. Abid Karim

**Place of birth:** Karachi, Pakistan.

**Nationality:** Pakistani

**Professional title:** Doctor in Electronics, Optics and Material Science

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## ■ Professional Experience

**1). Organization:** University of Augsburg, Experimental Physics–II, Germany.

**Duration:** 11/2007 – 07/2014.

**Position Held:** **Research fellow** (Leading to PhD)

**Job description:** Infrared spectroscopy under high–Pressure and low–Temperatures.

- Worked on Bruker IFS 66v/s and Vertex-80 infrared spectrometers.
- Interfacing, alignment of Bruker spectrometers with home build instrumental setup to perform high pressure and low temperatures measurements.
- Handling of high pressure instruments, i.e. Diamond anvil cells (DAC) etc.
- Handling of low temperature instruments, i.e. Liquid Helium exchange gas cryostats, temperatures controllers.
- Instrumentation and optical measurement at Synchrotron source ANKA at Karlsruhe Institute of Technology (KIT).
- Electrical transport in organic superconductors.
- Repair / Maintenance of optical instruments, computer networks, high vacuum pumps and low temperature cryostats.

**2). Organization:** PCSIR Laboratories, Karachi, Pakistan.

**Duration:** 07/2002 – 10/2007

**Position Held:** **Scientific officer**

**Job description:** Industrial Research and Development (R&D), Automations.

- Repair, Maintenance, design and development of scientific and analytical instruments.
- Design and development of CNC (computer numeric control) spectrometer in visible and UV range.
- R&D for CNC Colour–meter, for colour reorganizations in materials.
- R&D for Programmable Temperature controllers.
- R&D for ECG (Electro Cardio Graph) machine.
- Planning, tendering, supervision, testing and deployment of internet / data communication network for country wide PCSIR laboratories and centres.
- Network Administration and Hardware / software support.
- Supervision of Projects carried out by trainees and B.E (Bachelor of Engineering) students.

**3). Organization:** Asif Engineering, Korungi, Karachi Pakistan.

**Duration:** 01/2001 – 07/2002

**Position Held:** **Electronic Engineer**

**Job description:** Repair / Maintenance, Research and Development, Automations.

- Repair, Maintenance, design and development of machines relating to dies, mould and auto parts industries. .
- Design and development of complete control system for CNC EDM (Electric Discharge Machine) and wire–cutting EDM.

- R&D for controls system of hydraulic moving systems.
- R&D for servo control systems of heavy DC motors.

## ■ References

### Prof. Dr. Alois Loidl

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### Prof. Dr. Joachim Deisenhofer

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 86159 Augsburg, Germany.  
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 Fax: +49-(0) 821 598 3649  
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## ■ Education

04/2009- 07/2014

**PhD:** (Infrared spectroscopy, Superconductivity and Magnetisms)  
 Experimental Physics–II, University of Augsburg, Germany.

**Dissertation title:** Electronic correlation in superconductors (Pnictides) and magnetic materials (EuB<sub>6</sub>) probed by infrared spectroscopy, under **high–pressure** and **low–temperatures**.

03/2009

### **M.Sc. (Material Science):**

Institute of Physics, University of Augsburg, Germany.

**Thesis title:** Electrical Transport in one dimensional organic superconductor at low temperatures.  
 Division: 2,31 – ‘Gut’ (German grading system )

03/2000

**M.Sc. (Electronics):** University of Karachi, Pakistan.

**Thesis title:** Design, development and fabrication of microcontroller (AT89C5x) based private branch telephone exchange.

Division: GGPA ≈ 3.45 out of 4.0 (American grading system).

1997

**B.Sc. (Majors: Physick, Math, Statistics):** Universität von Karachi, Pakistan.

1994

**High school (Majors: Math, Physics, Chemistry, Biology):** Intermediate Board Karachi, Pakistan.

## ■ Patent and Publication

1. Patent of "Power Protection Unit" in Patent & Design Office Pakistan, Patent Application No. 478/2003, Sl. No. 138468. PCPPK-S/1275/92-93/P & D-17-06-93-4,000. Abid Karim, Khalid Saleem, Mohammad Yaqub, S.M. Saeed.
2. An investigation in Thermal Behaviour of Therparker coal.  
(Published in Journal of Chemical Society of Pakistan. Jour.chem.soc.Pak Vol. 28.6.2006).  
Mahmood Iqbal<sup>1</sup>, Tehzeeb Akhtar, Abid Karim, Farooq A. Khan
3. Studies on three excess properties of binary liquid mixture of 1-butylamine with some Alcohols at two different temperatures.  
(Published in PK ISSN 002-2941; CODEN JNSMAC. Vol. 46, No.1 & 2 (April & October 2006) PP 21-32)  
S. Shakeel Ahmad<sup>1</sup>, Mohmmad Yaqub and Abid Karim

## ■ Other courses

05/2003

### **Distributed Laboratory Instrumentation Control Systems**

ICTP (International Centre for Theoretical Physics) Trieste, Italy ([www.ictp.it](http://www.ictp.it)).

05/2006

### **Information Security Management Systems**

MTCP, SIRIM Behard, Malaysia.

## ■ IT skills

**Programming:** C / C++, Java, Visual Basic, HTML, Assembly language for Microcontrollers and microprocessors interfacing.

**Hardware / Software:** Interfacing of computers and machines, Repair / maintenance, Network administration and IT support.

## ■ Languages

English:	very good.
German:	elementary.
Hindi / Urdu:	native language.

## ■ Hobbies and spare time activities

- Long distance cycling.
- Swimming.
- Table tennis.
- Cooking and dinning.