

Muhammad Bilal Siddique



Date of Birth: 11th of March 1984

Citizenship: Pakistani

Cell: +92-3214396787

E-mail: bilalmughal459@yahoo.com

1. Teaching Experience:

Job Period	College/University	Designation	Duration
Apr 2014 – Aug 2014	King Saud University(KSU), Riyadh, Saudi Arab	Research Assistant (Visiting)	5 Months
Oct 2012 – Mar 2014 & Sep 2014 – Till Now	University of Management and Technology(UMT), Lahore, Pakistan	Lecturer (Full Time)	2.5 Year
Sep 2011 - Mar 2012	Lahore Garrison University(LGU), Lahore, Pakistan	Lecturer (Full Time)	6 Months
Oct 2011 - Nov 2011	Lahore University Of Management and Science(LUMS), Lahore, Pakistan	Research Associate (Part Time)	2 Months

2. Education:

2008-2010

Master in Photonics

Lund University, Sweden

Study Session	Degree/Certificate	Institute/Board
2008-2010	Master in Photonics (MS)	Lund University, Sweden
2004-2006	Master in Physics (M.Sc.)	University of the Punjab, Pakistan
2002-2004	Bachelors in Physics (B.Sc.)	Forman Christian College, Pakistan
1999-2002	Faculty of Sciences (F.Sc.)	Islamia College Civil Lines, Pakistan
1997-1999	Matriculation	Al-Faisal Model High School, Pakistan

3. Course Work:

Courses have Taught

- Electricity and Magnetism
- Mechanics
- Modern Physics
- Optics
- Classical Mechanics

Courses Teaching

- Nuclear Physics

4. Research Activities:

Master Thesis

Characterization of polymer solar cells' materials using Time correlated single photon counting: In this project we used newly developed Time correlated single photon counting laser setup to acquire fluorescence spectra for the test of polymer solar cells in the wavelength range from 826nm upto 1250nm. We use the data to determine the intermediate emissive states in polymer solar cells. The aim of the study is to verify the ability of the instrument to detect the fluorescence from intermediate emissive states regardless of their low concentration and measure their life-times.

Projects/Term Papers

Environmental and Medical Multispectral Imaging: The main object of this project report was to highlight the different aspects, functions and applications of multispectral imaging using fluorescent techniques which are presently used. In this project report the area that has been covered were medical and environmental applications using multispectral imaging techniques. The main emphasis was on the qualitative description of this approach.

Optical Characterization of Bruises: The main objective of this project was to investigate the age of bruises using fluorescence spectroscopy. The bruises are probed at different wavelengths to

determine the concentration of fluorophores, chromophores and of different compounds that varies with time and help to tell the age of bruises.

FRED, a modern non-sequential ray program: Using FRED we designed 1) Czerny-Tuner Spectrometer, 2) Different resonators, 3) Fiber Optics and 4) Different oscillators.

Research at KSU

Dynamics of Perovskite Solar Cells: We have built a setup for Photo-voltage and Photo-current decay spectroscopy. Work is presented in two conferences and is now in proceeding in a conference paper (SPIE).

5. Related Skills:

Proficient in English

Knowledge of MS office

Knowledge of FRED, qt-plot, Origin

6. References:

1. Prof. Anne L'Huillier
Department of Atomic Physics, Lund University
Tel: +46 46-22 7661
E-mail: Anne.Lhuillier@fysik.lth.se
2. Senior Lecturer Sven Goran Petterson
Department of combustion Physics, Lund University
Tel: +46 46-22 27656
E-mail: sven-goran.petterson@forbrf.lth.se