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|   |   |   |                         |  |
|---|---|---|-------------------------|--|
| <b>Name</b>   | Dr. Mujtaba Ellahi  |   |                         |  |
| <b>Designation</b>                                    | Assistant Professor BPS-19  |   |                         |  |
| <b>Department</b>                                     | Chemistry   |   |                         |  |
| <b>Faculty</b>  | Arts & Basic Sciences   |   |                         |  |
| <b>E-mail address</b>                                 | Official  | mujtaba.elahi@buitms.edu.pk                             |                         |  |
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|   | Mobile  | +92-333-2991136   |                         |  |
| <b>Qualification</b>                                  |   |   |                         |  |
| Year  | Degree/Certificate  | Name of the Institute/ University                       |                         | Field of study   |
| 2010-2013   | Ph.D  | University of Science and Technology Beijing, P.R.China |                         | Materials Science and Engineering (Analytical Polymer Chemistry) |
| 2000-2001   | M.Sc(Hons)  | University of Sindh, Jamshoro                           |                         | Organic Chemistry  |
| 1997-2000   | B.Sc (Hons)   | University of Sindh, Jamshoro                           |                         | Chemistry  |
| <b><u>Publications in HEC Recognized journals</u></b> |   |   |                         |  |
| S. No   | Title of Paper  | Name of Journal   | National/ International | Publication Year   |
| 1.  | Influence of the multi-functional epoxy monomers structure on the electro-optical properties and morphology of polymer-dispersed liquid crystal films | Polymer Bulletin  | International           | 2013   |
| 2.  | Study on the effects of isotropic cross-linked pristine morphology and electro-optical properties of PDLC films                                       | Polymer Bulletin  | International           | 2015   |
| 3.  | Characterization and Morphology of Polymer-Dispersed Liquid Crystal Films   | Soft Materials  | International           | 2014   |
| 4.  | The UV polymerization temperature dependence of polymer dispersed liquid crystals based on epoxies/acrylates hybrid polymer matrix components         | Liquid Crystals   | International           | 2012   |
| 5.  | Study of polymer dispersed liquid crystal systems using epoxies / acrylates as hybrid polymer matrix components                                       | Liquid Crystals   | International           | 2012   |

|     |   |   |               |                |
|-----|---|---|---------------|----------------|
| 6.  | Controlled synthesis, phase formation, growth mechanism, and magnetic properties of 3-D CoNi alloy microstructures composed of nanorods                         | Crystal Engineering Communication                         | International | 2013           |
| 7.  | Effects of di and tetra functional epoxy monomers structure on the morphology and the electro-optical properties of polymer-dispersed liquid crystal films      | International Journal of Scientific & Technology Research | International | 2013           |
| 8.  | Hydro thermal synthesis, characterization and hydrogen storage of Sn SnS nanorods   | Material Letters  | International | 2013           |
| 9.  | Influence of enhanced curing temperature of epoxy monomers structure on the electro-optical properties and morphology of polymer-dispersed liquid crystal films | American Journal of Engineering Research                  | International | 2013           |
| 10. | Fabrication of CoNi alloy hollow nanostructured microspheres for hydrogen storage application   | Journal of Nanoparticle Research                          | International | 2013           |
| 11. | Preparation and Electro-Optical Properties of Polyurethane Matrix Based Polymer Dispersed Liquid Crystal Films  | Chinese journal of liquid crystals and displays           | International | 2013           |
| 12. | Fabrication and Electrical characteristic of quaternary ultrathin HfTiErO thin films for MOS devices grown by rf sputtering                                     | Chemistry and Materials Research                          | International | 2013           |
| 13. | Polymer-stabilized nano particle-enriched blue phase liquid crystals  | Journal of Material Chemistry C                           | International | 2013           |
| 14. | Electrical and Photonics Characteristics of Hftiero Thin Films Deposited at 673 K Substrate Temperature   | Sindh University Research Journal Sci: Series             | National      | 2013           |
| 15. | Effect of impact force on Ti <sup>+</sup> C10Mo alloy powder compaction by high velocity compaction technique   | Materials and Design                                      | International | 2014           |
| 16. | Study on the effects of epoxy resin based PDLC films using polythiol group (-SH) as hardener and catalyst   | Materials Focus   | International | 2015           |
| 17. | Single crystalline Nano Octahedron of NiFe2O4: Gram scale Synthesis, magnetic and optical properties  | Material letter   | International | 2016           |
| 18. | Electro-optical properties of PDLC Films using Diethylene tri amine.  | Molecular Crystal & Liquid Crystal                        | International | 2016           |
| 19. | Pinning effects of Epoxy based Smart Glass thin PDLC films  | Molecular Crystal & Liquid Crystal                        | International | Submitted/2017 |
| 20. | Hydrodynamic Modeling of Ionic Liquids and Conventional Amine Solvents in Bubble Column   | Chemical Engineering Research & Design                    | International | 2018           |
| 21. | Morphological Study of PDLC films with Refractive Index Using Catalyst  | Pakistan Journal of Engineering and Applied Sciences      | National      | 2017           |

| 22.                                  | Study the effects of epoxy/tri functional mercaptan resins structure based PDLC films  | IOP Conference Series: Materials Science and Engineering   | International              | 2018 |
|--------------------------------------|--|--|----------------------------|------|
| 23.                                  | Assessment of Fluoride in drinking water and its correlation with different physicochemical parameters in the selected areas of Quetta, Pakistan                     | IOP Conference Series: Materials Science and Engineering   | International              | 2018 |
| <b>Paper Presented In Conference</b> |  |  |                            |      |
| S. No                                | Title of Paper   | Name of Conference   | National/<br>International | Year |
| 1.                                   | Effects of the content of Epoxy Monomers on the Electro-Optical Properties and reducing morphology of Polymer-Dispersed Liquid Crystal films                         | International Conference on Engineering & Applied Sciences (ICEAS-2012) Beijing, P.R.China                         | International              | 2012 |
| 2.                                   | Influence of the multiple crack growth effect of Epoxy Monomers Structure on the Electro-Optical Properties and morphology of Polymer-Dispersed Liquid Crystal films | The 2 <sup>ND</sup> International Conference on Engineering & Applied Sciences (ICEAS-2013) at Tokyo, Japan.       | International              | 2013 |
| 3.                                   | Study on the electro-optical properties of PDLC films (Smart glass) using Diethylenetriamine (DETA) hardener   | EMN Meeting on Liquid Crystal, at the Radisson Resort Orlando-Celebration Hotel, Orlando, USA.                     | International              | 2016 |
| 4.                                   | Preparation of PDLC films (Smart glass) using Trimethanolamine (TMA) catalyst via heat curing PIPS method  | 3D and Materials Research (CC3DMR), in Cheon /Seoul, South Korea.  | International              | 2016 |
| 5.                                   | Study on the Effects of Epoxy Resin Based PDLC Films Using Triethanolamine (TEA) as Catalyst   | Materials and Process Engineering ,at the NED University Science and Technology, I.R.PAKISTAN                      | National                   | 2015 |
| 6.                                   | Study the electro-optical properties of PDLC films (smart glass) with refractive index using catalyst  | 14 <sup>th</sup> EURASIA CONFERENCE ON CHEMICAL SCIENCES(EuAsC2S-14) DECEMBER 15 – 18, 2016, KARACHI, I.R.PAKISTAN | National                   | 2016 |
| 7.                                   | Morphological Study Of PDLC films with Refractive Index Using Catalyst.  | INTERNATIONAL CONFERENCE ON ADVANCED MATERIALS AND EMERGING TECHNOLOGIES 2016 (ICAMET 2016),Lahore, I.R.PAKISTAN   | National                   | 2016 |

|     |   |   |               |      |
|-----|---|---|---------------|------|
| 8.  | Comparative Analysis Of Epoxy Based Thin PDLC films Via PIPS Method   | Collaborative Conference on Materials Research (CCMR) 2017, Jesu Island, South Korea                              | International | 2017 |
| 9.  | Electro-clinic Effects of Polymer Network on Polymer Disperse Liquid Crystal (PDLC) films   | INTERNATIONAL CONFERENCE ON NANO-COMPOSITES AND MULTI-FUNCTIONAL, MATERIALS (ICNMM), NUST; ISLAMABD. I.R.PAKISTAN | National      | 2017 |
| 10. | Study the effects of epoxy/tri functional mercaptan resins structure based PDLC films   | 1st International Conference on Advances in Engineering and Technology (ICAET-2018).                              | National      | 2018 |
| 11. | Study of the Fluoride assessment in correlation with different physicochemical parameters in drinking water of some areas of Quetta, Pakistan | 1st International Conference on Advances in Engineering and Technology (ICAET-2018).                              | National      | 2018 |

**Workshop, Training , Symposium & Webinar**

| S.NO. | Name Workshop & Training   | Institution/Organization  | National/ International | Year |
|-------|--|---|-------------------------|------|
| 1.    | Seminar cum workshop on new trends in Electro-chemistry  | LEJ, Research Institute of Chemistry, at Université of Karachi. | National                | 2015 |
| 2.    | Webinar International prospective on industrial chemical safety & security, Jointly organized by the ICCBS & CRDF Global (USA) | LEJ, Research Institute of Chemistry, at Université of Karachi. | National                | 2015 |
| 3.    | EMN Meeting on Liquid Crystal  | Radisson Resort Orlando-Celebration Hotel, Orlando, USA.        | International           | 2016 |
| 4.    | 5 <sup>th</sup> International Symposium-cum-Training Course on Molecular Medicine & Drug Research                              | Université of Karachi.  | National                | 2015 |
| 5.    | Two days' Workshop on "Intellectual Property Rights Management Through Patents"  | Université of Karachi.  | National                | 2015 |
| 6.    | Effective management skills a course attend in professional skill development program,   | Université of Karachi.  | National                | 2015 |
| 7.    | University Teaching  | BUISTEMS  | National                | 2017 |
| 8.    | Intellectual Property, Patent & Trade Mark   | BUISTEMS  | National                | 2017 |

|     |  |                       |               |      |
|-----|--|-----------------------|---------------|------|
| 9.  | Professional Development Training Program                                  | BUIITEMS              | National      | 2016 |
| 10. | Orientation Workshop On SPSS & STATA                                       | BUIITEMS              | National      | 2016 |
| 11. | Pharmacopeia Modernization: How Will Your Chromatography Workflow Benefit? | On Internet (Webinar) | International | 2018 |
| 12. | Efficient Microstructure Characterization of Metals using Light Microscopy | On Internet (Webinar) | International | 2018 |

**Books/Chapter, Authored/ Edited**

| S. No | Name of Chapter   | Publisher                            | ISBN              |
|-------|---|--------------------------------------|-------------------|
| 1.    | Study the Toxic Effects BPA on Fetuses, Infants, and Children | Intech Open Science/Zagreb , Croatia | 978-953-51-5346-7 |

**Work Experience**

| S. No | From (year) | To (year)    | Name of the Institution/ Organization                         | Position held                      |
|-------|-------------|--------------|---|------------------------------------|
| 1.    | Oct: 2001   | Aug:2010     | Public College Mirpurkhas, Sindh                              | Lecturer in Chemistry, BPS-17      |
| 2.    | Sept:2013   | Sept:2014    | Department of Chemical Engineering, University of Karachi     | Assistant Professor (IPFP), BPS-19 |
| 3.    | Sept:2014   | June-2015    | H.E.J. Research Institute of Chemistry, University of Karachi | Research Officer BPS-18            |
| 4.    | July-2016   | Till to date | BUIITEMS  | Assistant Professor BPS-19         |

**Area of specialization** Analytical Polymer Chemistry

**Expertise** Smart Glass thin PDLC films.

**HEC Approved supervisor** Yes

**Additional Information**

- Supervised One MS students. (**Topic: FLUORIDE CORRELATION WITH OTHER PHYSICO-CHEMICAL PARAMETERS AND ITS EFFECTS ON HEALTH OF CHILDREN IN DRINKING WATER OF QUETTA, PAKISTAN**)
  - Co-Supervised two MS students.
  - Member of Departmental Inspection committee.
  - Member of Departmental Research committee.
  - Attend as a Co-operative member from Department of Chemistry the 5<sup>th</sup> of Board of Studies meeting Department of Chemical Engineering at BUIITEMS, 2016;
  - Contribute to prepare the Department Prospectus.
  - Contribute to prepare the MS-Chemistry Course outline for Meeting of Board of Studies Department of Chemistry, 2017.
  - Attend as a faculty member the 2<sup>nd</sup> board of studies meeting of Department of Chemistry was held on Monday, October 9; 2017 at BUIITEMS.
  - Committee member of "**The EMN Liquid Crystal Meeting**", Nov: 26 to 30, 2017 was held in **Mauritius**.
  - **Invited Speaker** at "**INTERNATIONAL CONFERENCE ON NANO-COMPOSITES AND MULTI-FUNCTIONAL MATERIALS (ICNMM)**", August 21-23, 2017 was held in NUST, ISLAMABAD; PAKISTAN.

**Research grants/ Projects**

| <b>Project Title</b>  | <b>Applicant remain as PI or Co-PI in the project</b> | <b>Duration (session)</b> | <b>Total Amount of Grant</b> | <b>Funding Agency</b>  | <b>Present Status</b> |
|---|---|---------------------------|------------------------------|--|-----------------------|
| 1. Single crystalline Nano Octahedron of NiFe <sub>2</sub> O <sub>4</sub> : Gram scale Synthesis, magnetic and optical properties | Co-PI   | FY 2014-2016              | <b>4.5 Million Yuan</b>      | Supported by National Natural Science Foundation of P.R.CHINA (Grant nos: 51371105 and 51071023) | <b>Completed</b>      |
| 2. Study on the effects of isotropic cross-linked pristine morphology and electro-optical properties of PDLC films                | Co-PI   | FY 2013-16                | <b>5.9 Million Yuan</b>      | Supported by the National Natural Science Foundation P.R.CHINA(Grant No.51272026 and 51273022),  | <b>Completed</b>      |
| 3. Preparation of thin Smart glass films via PIPS Method Using TYETA Hardener   | PI  | FY 2017-18                | <b>0.2 Million PKR.</b>      | No. 01/ Research Projects/ ORIC/ BUITEMS/ 2011/ 610  | <b>Completed</b>      |
| 4. Study on the effects of Silver nano particles (AgNPs) in epoxy monomers based PDLC films (Smart glass)                         | PI  | FY 2017-19                | <b>13.654 Million PKR.</b>   | HEC-No.TDF02-054   | <b>In Progress</b>    |
| 5. Preparation and Characterization of di, tri, and block copolymer epoxy based thin PDLC films (Smart Glass).                    | PI  | FY 2017-19                | <b>10.5 Million PKR.</b>     | HEC-No. NRPU 9356  | <b>Accepted</b>       |
| 6. Studies on synthesis of Schiff bases and evaluating scope of Morita Baylis Hillman (MBH) adducts                               | Co-PI   | FY 2018-19                | <b>0.198 Million PKR.</b>    | No. 01/ Research Projects/ ORIC/ BUITEMS/ 2011/ 325  | <b>In Progress</b>    |
| 7. Study the effects of epoxy/tetra functional thiol structure based PDLCs film   | PI  | FY 2018-19                | <b>0.189 Million PKR.</b>    | No. 01/ Research Projects/ ORIC/ BUITEMS/ 2011/ 340  | <b>In Progress</b>    |

|  |       |            |                           |   |                    |
|--|-------|------------|---------------------------|---|--------------------|
| 8. Synthesis and Evaluation of Biological Potential of Thiazolidinones by using Aliphatic Hydrazones as Synthetic Precursors | Co-PI | FY 2018-19 | <b>0.180 Million PKR.</b> | No. 01/ Research Projects/ ORIC/ BUITEMS/ 2011/ 337 | <b>In Progress</b> |
| 9. Study the Smart projection display glass Panel technology   | PI    | FY 2019-20 | <b>10.95 Million PKR.</b> | GOVERNMENT OF BALOCHISTAN                           | <b>Submitted</b>   |

### Research Profile

- Impact Factor **55.75**
- Number of Citations **241**
- *h* -Index **10**
- *i10*- Index **10**

### Scholarships and Awards

1. Award as a productive scientist of Pakistan in **2016** according to Pakistan Council for Science and Technology.
2. Award as a productive scientist of Pakistan in **2017** according to Pakistan Council for Science and Technology.
3. 3<sup>rd</sup> position in excellent international student scholarship of USTB for year of 2012.
4. Chancellor Scholarships of University of Science and Technology Beijing for Ph.D. Studies.
5. Rotary club International scholarship of youth merit award programme.
6. Tharparkar boy scouts presidential scholarship.

### International Journal Reviewer

1. Universal Journal of Materials Science (Horizon Research Publishing Corporation, USA).
2. Journal of Physical Science & Application (David Publishing Company, USA).
3. Journal of Material Science: Advanced Composite Materials (Whioce Publishing, Singapore).
4. International Journal for Research in Applied and Natural Science (Green Publication).
5. SCIREA Journal of Chemistry, (Publishing, Singapore).

### Membership

1. IUPAC Affiliate Fellow for the year 2015.
2. The Chinese Academy of Chemical Sciences.
3. The Chemical Society of Pakistan.
4. Member of the Pakistan Association for the Advancement of Science.

### Web Links:

1. <https://scholar.google.com/citations?user=Rvw0JRcAAAAJ&hl=en>
2. [https://www.researchgate.net/profile/Mujtaba\\_Ellahi](https://www.researchgate.net/profile/Mujtaba_Ellahi)
3. <https://www.scopus.com/authid/detail.uri?authorId=55279878700>
4. <https://orcid.org/0000-0002-8570-6971>
5. <https://www.youtube.com/watch?v=i28Gq6-fmXc>

