**CURRICULUM VITAE**

1. **GENERAL INFORMATION OF APPLICANT:**

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| --- | --- |
| Name | KIRTI SINHA |
| Date of Birth (Day/Month/Year) | 28-01-1959 |
| Correspondence Address | 220, Eldeco Greens, Gomti Nagar, Lucknow-226010 |
| Phone No. | Mobile No. : 9839930095  Landline No. : |
| Email | kirti.eldeco@gmail.com |

1. **PRESENT POSITION**:

|  |  |  |
| --- | --- | --- |
| a. | Designation | Professor of Physics |
| b. | Organization | Lucknow University |
| c. | Pay Scale | 37400-67000 Pay Band 10,000/- Pre-revised |
| d. | Date of appointment to the present post | 22 February, 2001 |
| e. | Total Experience (In years and Months) | 19 Years |

1. **DETAILS OF EXPERIENCE POSSESSED AS PER ELIGIBILITY CRITERIA :**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S. No.** | **Post Held** | **Pay Scale** | **Organization** | **Nature of duties** | **Experience (In Years and Months)** |
| 1. | Professor of Physics | 37000-67000 Pay Band 10,000/- Pre-revised | Lucknow University | Teaching Research Administration | 19 Years |

1. **EDUCATIONAL QUALIFICATION** (In chronological order from latest to Graduation level) :

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **S. No.** | **Qualification** | **University** | **Year** | **Subject(s)/ Topic(s)** | **% Achieved** | **Distinctions etc.** |
| 1. | Ph.d | Lucknow University | 1984 | Physics |  | Awarded |
| 2. | M.Sc (Special) | Lucknow University | 1980 | Physics | 70.3% | 1st Rank |
| 3. | B.Sc (Hons) | Lucknow University | 1979 | Physics | 72.6% | 1st Rank |
| 4. | B.Sc | Lucknow University | 1978 | Physics  Math  Statistics | 81.7% | 4th Rank |

1. **ADMINISTRATIVE EXPERIENCE/POST(S) & RESPONSIBILITIES HELD** :

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S.**  **No.** | **Post** | **Organization/ University** | **Duration** | | **Experience (In Years and Months)** |
| From (Date) | To (Date) |
| 1. | Head of the Department | Lucknow University | Jan, 2008  Nov 2012 | July, 2008  Nov, 2015 | 03 Years 06 Months |
| 2. | Chairman, board of Studies | Lucknow University | Jan, 2008  Nov, 2012  01.02.2017 | July 2008  Nov 2015  31.01.2020 | 06 Years 06 Months |
| 3. | Member, Board of Studies | Lucknow University | 22.02.2001 | Till date | 19 Years |
| 4. | Dean of Faculty | Lucknow University | 01.02.2017 | 31.01.2020 | 03 Years |
| 5. | Member of  Academic Council | Lucknow University | 22.02.2001 | Till date | 19 Years |
| 6. | Member of  Executive Council | Lucknow University | 29.01.2015  09.06.2017 | 08.01.2015  08.06.2018 | 02 Years |
| 7. | Member of Professional/ Academic Bodies | Lucknow University | - | - | - |
| 8. | Others (Specify) |  |  |  |  |
| 1. Head Computer Science | Lucknow University | 01.02.2017 | 05.01.2019 | 01 Years 10 Months |
| 1. Director, Centre of Excellence in Renewable Energy Research & Training | Lucknow University | 13.07.2017 | 31.01.2020 | 03 Years |
| 1. Finance Officer | Lucknow University |  |  | 1.5 Months  (2019) |

1. **(a)** Academic/Teaching Experience & Responsibilities :

(In chronological order from latest to Oldest)

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| --- | --- | --- | --- | --- | --- |
| **S.**  **No.** | **Post** | **Organization/ University** | **Duration** | | **Experience (In Years and Months)** |
| From (Date) | To (Date) |
| 1. | Professor of Physics | Lucknow University | 22.02.2001 | Till Date | 18 Years 07 Months |
| 2. | Associate Professor of Physics | Lucknow University | 03.10.1992 | 22.02.2001 | 08 Years 04 Months |
| 3. | Assistant Professor of Physics | Mahila Degree College Lucknow | 05.10.1983 | 03.10.1992 | 09 Years |
| 4. | Lecturer Temporary | Mahila Degree College Lucknow | 01.10.1981 | 05.10.1983 | 02 Years |

**(b)** Involvement with formulation of academic programmes :

|  |  |  |  |
| --- | --- | --- | --- |
| **S. No.** | **Nomenclature of Innovative Academic Programmes formulated** | **Date of approval by Academic Council** | **Year of Introduction** |
|  | Revising Syllabus for B.Sc & M.Sc | Whenever Required |  |

**(c)** Important MoUs formulated for academic collaborations:

|  |  |  |  |
| --- | --- | --- | --- |
| **S. No.** | **MoUs formulated** | **Name of Agencies/ Departments involved** | **Year of MoU** |
| 1. | Renewable | MNRE(Ministry of New and Renewable Energy) | 13.05.2013 |
| 2. | Renewable | NISE (National Institute of Solar Energy) | 20.05.2019 |

1. **SCHOLARLY ACHIEVEMENTS :**
2. **Publication –** Total no. of scholarly publications in recognized professional and/ or academic journals- **23**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| S. No. | Date | Title | Name of Journal | Refereed journal or not | Number of Citations  (where possible) |
| 1. | 2019 | Combined spectroscopic and quantum chemical approach to study the effect of hydrogen bonding interactions in ezetimibe. | Spectrochimica Acta Part A Molecular and Biomolecular Spectroscopy 206, 246-253. |  |  |
| 2. | 2019 | Study of molecular and hydrogen bond interactions in dipfluzine- benzoic acid (DIP-BEN) Cocrystal using spectroscopic and quantum mechanical method. | Spectrochimica Acta Part A Molecular and Biomolecular Spectroscopy 216, 7-14. |  |  |
| 3. | December,  2018 | Molecular structure, spectroscopic signatures and reactivity analyses of paracetamol, hydrochloride monohydrate salt using density functional theory calculations. | CrystEngComm. |  |  |
| 4. | June,  2016 | Combined spectroscopic and quantum chemical approach to study the effect of hydrogen bonding interactions. | Molecular Structure 1125. |  |  |
| 5. | May,  2018 | Spectroscopic and molecular structure (monomeric and dimeric model) Investigation of febuxostat: A combined experimental and theoretical study. | Spectrochimica Acta Part A Molecular and Biomolecular Spectroscopy 203. |  |  |
| 6. | November, 2017 | Molecular structure and hydrogen bond interactions of a paracetamol-4,4’- bipyridine cocrystal studied using vibrational spectroscopic and quantum chemical approach. | CrystEngComm 20(66). |  |  |
| 7. | June, 2017 | Study of molecular interactions and chemical reactivity of the nitrofurantoin-3-aminobenzoic acid cocrystal using quantum chemical and spectroscopic (IR, Raman, 13C SS-NMR) approaches. | CrystEngComm 19(28) |  |  |
| 8. | November, 2016 | Study of vibrational spectra and hydrogen bonding network in dimeric and tetrameric model of ampicillin using DFT and AIM approach. | Molecular Structure 1131. |  |  |
| 9. | July, 2016 | Studies of Molecular structure, hydrogen bonding and chemical activity of a nitrofurantoin-L-proline cocrystal: a combined spectroscopic and quantum chemical approach. | Molecular Structure 1131. |  |  |
| 10. | July, 2016 | Spectroscopic, quantum chemical calculation and molecular docking of dipfluzine. | Molecular Structure 1125. |  |  |
| 11. | January, 2016 | Vibrational analysis and chemical activity of paracetamol-oxalic acid cocrystal based on monomer and dimer calculations: DFT and AIM approach. | RSC Advances 6(12). |  |  |
| 12. | January, 2016 | Combined experimental and theoretical approach to study SmC- NCybC phase transition studies of a four-ring bent-core liquid crystal. | Chemistry 40(8). |  |  |
| 13. | October, 2015 | A computational study on molecular struct6ure, multiple interactions, chemical reactivity and molecular docking studies on 6[D(-) a-amino-phenyl-acetamido] penicillanic acid (ampicillin). | Molecular Sinulation. |  |  |
| 14. | 2015 | Spectroscopic characterization and quantum chemical investigation of molecular structure and vibrational spectra of nitrofurantoin – 3-aminobenzoic acid co-crystal. | International workshop and Conference on Frontiers of Spectroscopy (ICFS – 2015), At Banaras Hindu University. |  |  |
| 15. | 2010 | Kinetics of non-isothermal crystallization of ternary Se80Te20-xZnx glasses. | Alloys and Compounds, 497, 215-220. |  |  |
| 16 | 2008 | Optical characterization of vacuum evaporated a-Se80Tx20xCux thin films. | Vaccum 82, 608-612. |  |  |
| 17. | 2007 | Crystallization and glass transition kinetics in Se80Te20-XCdX glasses by using non-isothermal measurement. | EPJ Applied Physics, 38, 211-216. |  |  |
| 18. | 2006 | Differential scanning calorimetric study of Se80Te20-x Cux chalcogenide glasses. | Physica B, 382, 92-97. |  |  |
| 19. | 1984 | Calculation of the chemical shifts of the X-ray absorption edges. | Acta Physica Polonica A, (Poland) 65, 53. |  |  |
| 20. | 1983 | Excitation energy dependent features in X-ray emission spectrum of Cerium. | Int. J. Pure & Applied Physics (India), 21, 615. |  |  |
| 21. | 1983 | Electron-electron interaction in the X-ray emission spectrum of Cerium. | Int. J. Pure and Appl. Physics (India) 21, 256. |  |  |
| 22. | 1982 | Chemical Shift of the X-ray K or L absorption edges. | Chemical Science (India) 91, 385. |  |  |
| 23. | 1981 | Shift in binding energy of the inner electrons due to chemical combination. | Phys. Stat. Sol. (b) (Germany) 108, 575. |  |  |

1. **Participation and contribution in National/International for a in the area of your academic and professional expertise:**

|  |  |  |
| --- | --- | --- |
|  |  | Number(s) |
| Plenary Lectures/Invited Talks | International |  |
| National |  |
| Congresses attended | International |  |
| National | Indian Science Congress-02 attended |
| Examiner ship etc. | International |  |
| National | Ph.D Physics (Examined) |
| Other (Specify) | International | **I was invited by the Nobel committee for Physics (The Royal Swedish Academy of Science) to nominate for “The Noble Prize in Physics for 2019 vide letter dated September, 2018.** |
| National | **I was shortlisted and interviewed by the Hon’ble Chancellor for the Post of Vice-chancellor of UP Technical University on July, 2009 and also for the Post of Vice-chancellor of Allahabad State University on 10th June, 2019.** |

**8. RESEARCH PROJECTS:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Sl. No. | Client/Organization’s Name | Nature of project | Duration of project | Amount of grant (Rupees) |
| 1. | UGC | Co Investigator in major research project | 03 Years | 11,54,000/- |
| 2. | DST | PURSE | 2012-2017 | 1,57,60,000/- |
| 3. | DST | PURSE | 2017-31.01.2020 | 7,90,00,000/- |

**9.** **NO. OF RESEARCH SCHOLARS SUCCESSFULLY GUIDED**:

|  |  |
| --- | --- |
| Name of Programme | Awarded (No.) (Under-progress not to be included |
| Ph.D (Physics) | **05** |

(Signature of the Applicant)

Place:

Date: