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|-------------------------------------------------------------------------------------------------------------------------|---------------------------------|--------------------------------------------------------------------------------------------|--------------------------------------------------------------------|-------------------------------------------------------------------------------------|------------------------|--|
| Dr. Ajay K Yadav                                                                                                        |                                 |                                                                                            |                                                                    |  |                        |  |
| Designation                                                                                                             |                                 | Associate Professor                                                                        |                                                                    |                                                                                     |                        |  |
| Department                                                                                                              |                                 | Electronics & Instrumentation Engineering                                                  |                                                                    |                                                                                     |                        |  |
| Address                                                                                                                 | Cam pus                         | EI Engineering, F.E.T., M.J.P. Rohilkhand University, Bareilly (U.P.) -243006              |                                                                    |                                                                                     |                        |  |
|                                                                                                                         | Resid ence                      | 118 Umang Part-2, Mahanagar, Bareilly, (U.P.)-243006                                       |                                                                    |                                                                                     |                        |  |
| Mobile No.                                                                                                              |                                 | 9258066671                                                                                 |                                                                    |                                                                                     |                        |  |
| Email ID                                                                                                                |                                 | Personal                                                                                   | <a href="mailto:ajayyadu@gmail.com">ajayyadu@gmail.com</a>         |                                                                                     |                        |  |
|                                                                                                                         |                                 | University Domain                                                                          | <a href="mailto:ajayyadav@mjprou.ac.in">ajayyadav@mjprou.ac.in</a> |                                                                                     |                        |  |
| Professional Networking IDs                                                                                             |                                 | Linkedin: <a href="mailto:ajayyadu@gmail.com">ajayyadu@gmail.com</a><br>Twitter: @yaduajay |                                                                    |                                                                                     |                        |  |
| Educational Qualification                                                                                               |                                 |                                                                                            |                                                                    |                                                                                     |                        |  |
| Course/Degree                                                                                                           | Institution                     |                                                                                            | Year                                                               | Details/Subject                                                                     |                        |  |
| Ph.D.                                                                                                                   | IIT, Delhi                      |                                                                                            | 2025                                                               | Development of Sensor based Portable Instrument to Test Milk Quality                |                        |  |
| M.E.                                                                                                                    | NITTTR, Chandigarh              |                                                                                            | 2016                                                               | Instrumentation & Control                                                           |                        |  |
| B.E.                                                                                                                    | University of Rajasthan, Jaipur |                                                                                            | 2006                                                               | Electronic Instrumentation                                                          |                        |  |
| Career Profile                                                                                                          |                                 |                                                                                            |                                                                    |                                                                                     |                        |  |
| Organization / Institution                                                                                              |                                 | Designation                                                                                | Duration                                                           | Nature of Duties                                                                    |                        |  |
| F.E.T., MJP Rohilkhand University                                                                                       |                                 | Associate Professor                                                                        | 1.5 Year                                                           | Academic & Administrative                                                           |                        |  |
| F.E.T., MJP Rohilkhand University                                                                                       |                                 | Assistant Professor                                                                        | 17 Year                                                            | Academic & Administrative                                                           |                        |  |
| Research Interests / Specialization                                                                                     |                                 |                                                                                            |                                                                    |                                                                                     |                        |  |
| Sensor and Instrument development, Embedded Systems                                                                     |                                 |                                                                                            |                                                                    |                                                                                     |                        |  |
| Research Experience in Years: 03                                                                                        |                                 |                                                                                            |                                                                    |                                                                                     |                        |  |
| Resear cher/ Expert ID                                                                                                  | Scopus                          | Orchid                                                                                     | Publons                                                            | Vidwan                                                                              | G-Scholar              |  |
|                                                                                                                         | ajayyadav@mjprou.ac.in          | <a href="https://orcid.org/0000-0002-3514-6611">https://orcid.org/0000-0002-3514-6611</a>  | ajayyadav@mjprou.ac.in                                             | 165580, ajayyadav@mjprou.ac.in                                                      | ajayyadav@mjprou.ac.in |  |
| Teaching Experience: 18.5 Years                                                                                         |                                 |                                                                                            |                                                                    |                                                                                     |                        |  |
| Subjects/Courses Taught                                                                                                 |                                 |                                                                                            |                                                                    |                                                                                     |                        |  |
| Analog Electronics, 8051 Microcontroller & Embedded System, Linear Integrated Circuits, Transducers, PLC and SCADA, IoT |                                 |                                                                                            |                                                                    |                                                                                     |                        |  |

| <b>Publications /Academic Activities (Numbers Only)</b> |    |
|---------------------------------------------------------|----|
| Research Papers Published in International Journals     | 09 |
| Papers Presented in Seminars/ Conferences               | 10 |
| Seminars/ Conferences Organized                         | 02 |
| Seminar/ Conferences Attended                           | 30 |
| Research Projects (Completed)                           | 01 |
| Resource Lectures Delivered                             | 04 |

| <b>Details of Publications /Academic Activities</b>                         |                                                                                               |                                                                                                            |                                                                                                     |
|-----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| <b>Papers Published in UGC Care Listed /Indexed/ Peer Reviewed Journals</b> |                                                                                               |                                                                                                            |                                                                                                     |
| <b>Year</b>                                                                 | <b>Title</b>                                                                                  | <b>Name of Journal</b>                                                                                     | <b>ISSN No</b>                                                                                      |
| August 2024                                                                 | Innovative sensor design for reliable detection of formaldehyde adulteration in milk          | Sensors and Actuators A: Physical Elsevier                                                                 | <a href="https://doi.org/10.1016/j.sna.2024.115448">https://doi.org/10.1016/j.sna.2024.115448</a>   |
| Dec 2022                                                                    | Key Milk Adulterants in India and their Detection Techniques: A Review                        | Food Analytical Methods, Springer                                                                          | <a href="https://doi.org/10.1007/s12161-022-02427-8">https://doi.org/10.1007/s12161-022-02427-8</a> |
| January 2020                                                                | A review of ultrasonic detection techniques for identifying adulterants in liquids            | Webology, vol. 7, 2020                                                                                     |                                                                                                     |
| June 2018                                                                   | Implementation of an Automatic Irrigation System: An Advanced Approach                        | International Journal of Research Volume VII, Issue VI, June/2018 pp. 771-776                              | 2236-6124                                                                                           |
| Jan-April, 2018                                                             | Analysis of Remote Sensed Data Using Neuro- Fuzzy Algorithm: A Case Study of Hyderabad Region | Turkish Journal of Computer and Mathematics Education Vol.09 No.01 (2018), 181- 190                        | E-ISSN 1309-4653                                                                                    |
| Jan-April, 2018                                                             | Model Predictive Control Design for SISO LTI system subjected to bounded constraints          | Turkish Journal of Computer and Mathematics Education Vol.09 No.01 (2018), 170- 180                        | E-ISSN 1309-4653                                                                                    |
| Jan-June 2015                                                               | An Advanced Home Automation System Using Mobile Phone                                         | International Journal of Electrical and Electronics Engineers (IJEET), Volume 07, Issue 01, Jan- June 2015 | ISSN- 2321-2055 (E)                                                                                 |
| Jan-June 2015                                                               | Controlling Of Devices Through Voice Recognition Using MATLAB                                 | International Journal of Electrical and Electronics Engineers (IJEET), Volume 07, Issue 01, Jan- June 2015 | ISSN- 2321-2055 (E)                                                                                 |
| July-Dec 2013                                                               | A New Approach to Reduce the Delay with Balanced Hardware Requirement in SAD Technique        | International Journal of Research, Volume 2, Issue II, pp 225-229 July-Dec/2013                            | 2236-6124                                                                                           |

### **Seminar/Conference Presentations**

- Presented A Paper on Development of a Home-scale Prototype to Detect Preservatives in Milk, at IEEE APSCON-2025 at IIT Hyderabad.
- Presented A Paper on Evaluating Impedance and Phase Angle for Milk Formaldehyde Detection, at IEEE APSCON-2024 at BITS Goa.
- Presented A Paper on Green Energy Evolution: Biological Models Shaping Efficiency and Sustainability, at 38th National Convention of Production Engineers & National Conference on Green and Bio-inspired Manufacturing- The Way Forward, MJPRU Bareilly.
- Presented A poster on Analysis of Electrical Parameters for Formaldehyde Estimation in Milk, at the 13th NIZO Dairy Conference 2023 Papendal, The Netherlands.
- Presented A poster on Impedance Analysis for detecting Milk Adulteration using Nickel-based Sensor, at Taiwan-India Exchange workshop (ICCNTSD), IIT Delhi.
- Presented A Paper on Rural Entrepreneurship: A Catalyst for Economic Growth and Social Development, at National Conference on Entrepreneurship Development: The Road to Five Trillion, MJPRU Bareilly.
- Presented A Paper on Design And Implementation Of Wi-Fi Based Home Automation System, in IEEE sponsored IoT-SIU-2017, at MJPRU Bareilly.
- Presented A Paper on Controlling Of Devices Through Voice Recognition Using MATLAB, at the 2nd International Conference on Academic Research in Engineering, Management and Information Technology (ICAREMIT-2015), MJPRU Bareilly.
- Presented A Paper on Design and Development of an Advanced Irrigation System Using GSM Technology, Recent Advances and Trends in Electrical Engineering (RATEE), at NITTR Chandigarh in 2014.
- Presented A Paper on Role Of Model Predictive Control (MPC) System In the Paper Industry, National Seminar on Software Application in Engineering & Technology (SAET-2012), at MJPRU Bareilly.

### Invited as Resource Lectures Person/Examiner/Expert

| Resource person | Title of Lecture                                     | Detail of Event | Date       | Institution                         |
|-----------------|------------------------------------------------------|-----------------|------------|-------------------------------------|
| Ajay Yadav      | Role of Digital Technology in the field of Education | Invited Lecture | 08/03/2013 | RBMI, Bareilly                      |
| Ajay Yadav      | Energy Management System                             | Seminar         | 14/04/2014 | PPGI, Bareilly                      |
| Ajay Yadav      | Microcontroller Based Automation System              | Invited Lecture | 27/04/2016 | RBMI, Bareilly                      |
| Ajay Yadav      | Invited Lecture on IoT                               | Conference      | 24/02/2018 | Birla Institute of Applied Sciences |

### Seminars/Conferences/Workshops organization

- Organizing Secretary, Webinar on Industrial IoT", at MJPRU Bareilly, 07-06-2020
- Organizing Secretary, Webinar on "Detecting Addictive Use of Digital Technology Using AI", at MJPRU Bareilly, 05-06-2020
- Faculty Coordinator, One week Workshop on “Signals, Sensors and Measurement Systems”, at BMS College of Engineering Bangalore, 22-07-2019
- Coordinator, Workshop on "Alternate in Education", at MJPRU Bareilly, 23-03-2018
- Organizing Secretary, Orientation Program for first-year students, at MJPRU Bareilly, 14-07-2017
- Member, Organizing Committee, 2<sup>nd</sup> IEEE International Symposium on IoT: Smart Innovation and Usage IoT-SIU-2017.
- Member, Technical Committee, ICAREMIT-2015.
- Coordinator, "Industry Institute Interaction Workshop", at MJPRU Bareilly, 24-10-2013
- Coordinator, Workshop on “Embedded System” & “Industrial Automation”, at MJPRU Bareilly, 27-02-2013

### Projects Detail

| Year | Name of Project                                                                                                                                                        | Funding Agency | Amount | Duration   |                |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------|------------|----------------|
|      |                                                                                                                                                                        |                |        | From       | Till           |
| 2019 | Performance analysis and PID controller-based speed control of AC motor using Virtual Environment<br>(In collaboration with Dr Santosh Desai of BMC College Bangalore) | TEQIP-III      | 2.21L  | April-2019 | September 2019 |

| Administrative Positions/Assignments Held |                                                               |                                                             |                   |
|-------------------------------------------|---------------------------------------------------------------|-------------------------------------------------------------|-------------------|
| Post                                      | Organization                                                  | Duration                                                    |                   |
|                                           |                                                               | From                                                        | To                |
| In charge                                 | University Guest House                                        | 17 October 2025                                             | Present           |
| EMD Manager                               | E-Office, MJPRU                                               | 13 March 2026                                               | Present           |
| Overall, In charge                        | E-Office, Digi locker, CM Dashboard                           | 10 June 2026                                                | Present           |
| Assistant Dean                            | College Development Council (CDC), MJP Rohilkhand University. | 1 June 2024                                                 | Present           |
| Assistant In charge                       | Horticulture and sanitation, MJP Rohilkhand University.       | 5 September 2024                                            | Present           |
| Member                                    | Examination Committee, Samarth, MJP Rohilkhand University     | 9 July 2024                                                 | Present           |
| Member                                    | IDP and Ranking Cell, MJP Rohilkhand University               | September 2023                                              | Present           |
| Assistant Warden                          | New Boys Hostel, MJPRU                                        | 18 May 2017                                                 | 31 August 2019    |
| Assistant Dean                            | Student Welfare, MJP Rohilkhand University                    | 12 July 2018                                                | 31 August 2019    |
| Coordinator                               | Unnat Bharat Abhiyan MJP Rohilkhand University                | 18 October 2018                                             | 14 September 2019 |
| Timetable In-charge                       | Department of EI Engineering, MJP Rohilkhand University       | July, 2009                                                  | June, 2011        |
|                                           |                                                               | July, 2013                                                  | June 2011         |
| TnP Coordinator                           | Department of EI Engineering, MJP Rohilkhand University       | July, 2012                                                  | 14/09/2020        |
| ACS                                       | Evaluation Centers, MJP Rohilkhand University                 | May 2016, May-June 2017, June 2018, January 2018, Oct, 2018 |                   |
| ACS                                       | Entrance Examination of MJPRU and CPMT, B.Ed. etc             | May-June 2013 & 2014, May 2019                              |                   |
| ACS                                       | End Semester Examination, MJP                                 | May 2009 & Feb 2010, June 2012, Jan 2013, May 2013,         |                   |

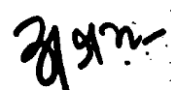
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|-----------------|--------------------------------|--------------------------------------------|------------------|
|                 | Rohilkhand University          | June 2014, Dec 2014 & June 2015, May 2017. |                  |
| Program Officer | NSS, MJP Rohilkhand University | 31 January 2015                            | 1 September 2019 |

#### **Memberships of Academic/Professional Bodies**

- IEEE Member of Instrumentation and measurement Society (97897564)
- Life Member of Instrumentation Society of India (LM-1907)-2011
- Life Member of Indian Science Congress (L33302)

#### **Participation in Community Service / Exchange Program / Consulting Activity**

- General Secretary, Khushhali Foundation (works for integrated rural development, plantation and environment conservation and school education program for Gadhiya lohar community).
- General Secretary, MJP Rohilkhand University Teachers Association (MJPRUTA).
- Vice President, MJP Rohilkhand University Teachers Association (MJPRUTA).
- Coordinator Indradhanush (evening school initiative for underprivileged children at MJP Rohilkhand University).
- Organized several blood donation camps for IMA and Government Hospital Blood Bank, Bareilly.



(Ajay Kumar Yadav)