INSTITUTE OF HOME ECONOMICS

UNIVERSITY OF DELHI

Name	**Dr Sandeep Yadav**	Photograph
Designation	Assistant Professor	
E-mail	sandeep.yadav@ihe.du.ac.in	
Web Page	**https://sites.google.com/view/yadavsandeep/home**	

Educational Qualifications:

- MSc **(Biochemistry)** from Department of Biochemistry & Genetics, Maharshi Dayanand University, Rohtak, Haryana in 2008
- PhD **(Biochemistry)** from Department of Biochemistry, Maharshi Dayanand University, Rohtak (Haryana), India and Institute of Genomics and Integrative Biology (I.G.I.B.) New Delhi, India in 2012

Teaching experience:

- ~11 Years (From 23.08.2013)

Subjects/Papers Taught:

- Nutritional Biochemistry; Proteins & Enzymes; Plant Biochemistry; Human Physiology; Hormones: Biochemistry & Function; Biomolecules; Metabolism of Carbohydrates and Lipids

Awards received

- Certificate of Appreciation from Dean Examination, University of Delhi for the timely evaluation of answer scripts of Open Book Examination (OBE) of Nutritional Biochemistry (UPC 32207904), Proteins and Enzymes (UPC 32495902) and Hormone: Biochemistry and Function (UPC 32491303) held in Nov-Dec, 2021 and for Plant Biochemistry (UPC 32497907) in May-June, 2022.
- Review and judge the Articles presented by participants of National Level Online Article Writing Contest Organized by Hindu Girls College, Sonepat on the Theme - **"Survival Strategies amid Covid -19 after Lockdown"** from June 2-10, 2020.
- Research Associateship (RA) awarded by Indian Council of Medical Research (ICMR)
- Best oral presentation award in National Conferences: 02

Research Interest/Specialization

- Electrochemical biosensor technology, Bio-nanotechnology, Enzyme technology, Clinical chemistry, Analytical biochemistry and Microfluidics, Food Safety

ORCID No.

- https://orcid.org/0000-0001-8613-9692

Research Projects

Title	Funding agency/organization	Duration of Project

Research papers since 2010 (APA format)

- Yadav S., Sehrawat N., Sharma S., Sharma M., **Yadav S.** (2024) Lab-on-Chip biosensing methods based on graphene and its derivatives for food safety monitoring. *Food Control*. 163, 110536 **[IF - 6.0]**
- Devi R., Chauhan A., **Yadav S.,** Kumar P., Pundir C.S. (2023) Development of aptamer based colorimetric assay for whole blood glycated hemoglobin (HbA1c) estimation using gold nanoparticles. *Biosens. Bioelectrons. X*. 13. 100304.
- Vachher, M., Bansal, S., Kumar, B., **Yadav, S.,** Burman, A. (2022). Deciphering the role of aberrant DNA methylation in NAFLD and NASH. *Heliyon.* 8, e11119 **[IF- 3.77]**
- Vachher, M., **Yadav, S.,** Rastogi, A., Tihara, S., Kumar, B., Arora, T., Burman, A. (2022). Consumption of natural products and Ayurvedic decoctions "kadha" as immunity-boosting measures during the spread of COVID-19 in Delhi. *J. Drug Res. Ayur. Sci.* 7, 192-199**.**
- Vachher, M., Bansal, S., Kumar, B., **Yadav, S.,** Arora, T., Moza-Wali, N., Burman, A. (2022). Contribution of organokines in the development of NAFLD/NASH associated hepatocellular carcinoma. J Cell. Biochem. 1, 1-32 **[IF- 4.48]**
- Vachher, M.,* **Yadav, S.,*** Gopal, P., Chopra, S., Grover, N., Vanshika., Sharma, S., Burman, A., Trilok-Kumar, G. (2021). A Sustainable Option of Developing Kitchen Gardens Based on Air Pollution Tolerance Index (APTI) Method of Plants with Edible Leaves for Health and Well Being. *The Ind. J. Nutrit. Diet., 58*, 54-67.
- Singh, M., **Yadav, S.** (2014). A label-free electrochemical protein sensor of perchloric acid doped polyaniline. *Int. J. Pharm. Anal. Res. 3*, 157-168. **[IF = 3.056]**
- Pundir, C.S., Yadav, S., Kumar, S. (2013). Creatinine sensors. *Trends in Anal. Chem. 50*, 42-52 **[IF = 14.908]**
- Devi, R., Batra, B., Lata, S., **Yadav, S.,** Pundir, C.S. (2013). A method for determination of xanthine in meat by amperometric biosensor based on silver nanoparticles/ cysteine modified Au electrode. *Process Biochem. 48*, 242–249 **[IF = 4.885]**
- Kundu, N., **Yadav, S.,** Pundir, C.S. (2013). Preparation and characterization of glucose oxidase nanoparticles and their application in dissolved oxygen metric determination of serum glucose. *J Nanosci. Nanotechnol. 13*, 1710-1716. **[IF = 1.354]**
- Devi, R., **Yadav, S.,** Nehra, R., Yadav, S., Pundir, C.S. (2013). Electrochemical biosensor based on gold coated iron nanoparticles/chitosan composite bound xanthine oxidase for detection of xanthine in meat samples. *J. Food Engg. 115*, 207-214. **[IF = 6.203]**
- Batra, B., Lata, S., Devi, R., **Yadav, S.,** Pundir, C.S. (2012) Fabrication of an amperometric tyramine biosensor based on immobilization of tyramine oxidase on AgNPs/L-Cys modified Au electrode. *J. Solid State Electrochem. 16*, 3869-3876. **[IF = 2.747]**

- **Yadav, S.,** Devi, R., Bhar, P., Singhla, S., Pundir, C.S. (2012). A creatinine biosensor based on iron oxide nanoparticles/chitosan-g-polyaniline composite film electrodeposited on Pt electrode. *Enz. Microb. Technol. 50,* 247-254. **[IF = 3.705]**
- Devi, R., Narang, J., **Yadav, S.,** Pundir, C.S. (2012). Amperometric determination of xanthine in tea, coffee and fish meat with graphite rod bound xanthine oxidase. *J. Anal. Chem. 67,* 273-277. **[IF = 1.237]**
- Devi, R., **Yadav, S.,** Pundir, C.S. (2012). Amperometric determination of xanthine in fish meat by zinc oxide nanoparticles/chitosan/multiwalled carbonnanotube/polyaniline composite film bound xanthine oxidase. *Analyst 137,* 754-759. **[IF = 5.227]**
- Devi, R., **Yadav, S.,** Pundir, C.S. (2012). Au-Colloids-polypyrrole nanocomposite film for xanthine biosensor. *Colloids and Surfaces A: Physicochem. Engg. Aspects 394,* 38-45. **[IF = 4.539]**
- Devi, R., **Yadav, S.,** Pundir, C.S. (2011). Electrochemical detection of xanthine by xanthine oxidase immobilized on carboxylated multiwalled carbon nanotubes/polyaniline composite film. *Biochem. Engineering J. 58-59,* 148-153. **[IF = 4.446]**
- **Yadav, S.,** Kumar, A., Pundir, C.S. (2011). Amperometric determination of creatinine with covalently co-immobilized enzymes onto carboxylated multiwalled carbon nanotubes/polyaniline composite film on Pt electrode. *Anal. Biochem. 419,* 277-283. **[IF = 3.191]**
- **Yadav, S.,** Devi, R., Kumar, A., Pundir, C.S. (2011). Tri-enzyme functionalized ZnO-NPs/ CHIT/c-MWCNT/PANI composite film for amperometric determination of creatinine. *Biosens. Bioelectrons. 28,* 64–70. **[IF = 12.545]**
- Lata, S., **Yadav, S.,** Bhardwaj, R., Pundir, C.S. (2011). Amperometric Determination of Tyramine in Sauce and Beer by Epoxy Resin Biocomposite Membrane bound Tyramine Oxidase. *Sens. Instrument. Food Quality Safety (Journal of Food Measurement and Characterization) 5,* 104-110. **[IF = 3.006]**
- **Yadav, S.,** Devi, R., Pundir, C.S. (2011). An amperometric oxalate biosensor based on polypropylene tip bound sorghum oxalate oxidase. *Sens. Letts. 9,* 1661-1665. **[IF = 0.811]**
- **Yadav, S.,** Devi, R., Kumari, S., Yadav, S., Pundir, C.S. (2011) An amperometric oxalate biosensor based on sorghum oxalate oxidase bound carboxylated multiwalled carbon nanotubes–polyaniline composite film. *J. Biotechnol. 151,* 212–217. **[IF = 3.595]**
- Dahiya, T., **Yadav, S.,** Chauhan, N., Handa, P., Pundir, C.S. (2010) Strawberry Fruit Oxalate Oxidase-Detection, Purification, Characterization and Physiological Role. *J. Plant Biochem. Biotechnol. 19,* 247-250 **[IF = 0.773]**

Books published/edited

Book chapters published/edited

- **Yadav, S.,** Saini, A., Vasdev, K. (2020). Nanobiosensors. In S. Yurish (Ed.). Advances in Biosensors: Reviews Volume 3 (pp 273-333) International Frequency Sensor Association Publishing.
- Saini, A., **Yadav, S.,** Vasdev, K. (2020). Enzyme Biosensors. In S. Yurish (Ed.). Advances in Biosensors: Reviews Volume 3 (pp 223-272) International Frequency Sensor Association Publishing.

- Saini, A., **Yadav, S.,** Mani I. (2022). Chapter 14-DNA/RNA-based self-assemblies for bio-sensing. In A. Pandya, R.S. Bhosale and V. Singh (Ed.). Design, Principle and Application of Self-Assembled Nanobiomaterials in Biology and Medicine (pp 227-249) Academic Press.
- **Yadav, S.,** Saini, A., Devi, R., Lata, S. **(2023).** Transducers in Biosensors. In: Kumar, P., Dash, S.K., Ray, S., Parween, S. (Eds) *Biomaterials-Based Sensors* (*pp 101-125*). Springer, Singapore. [ISBN: 978-981-19-8501-0]

Association with Professional Societies

- Assistant Editor of **'International Journal of Clinical Biology and Biochemistry'**
- Peer Reviewer in Journal **'Advances in Biochemistry (AB)'; 'Journal of Food Science and Technology (JFST)'** and **'American Journal of Biochemistry and Biotechnology (AJBB)'**

Any other

Academic/Administrative Assignments

- Convenor, राजभाषा कार्यान्वयन समिति (2024-2025)
- Co-Convenor, Viksit Bharat Ambassador Club (2024-2025)
- Member; College Admission, Prospectus, Media Publicity & Student grievance committee (2016-2025)
- Member; College Student Amenities committee (2021-2024)
- Member; College IQAC-NAAC committee (2022-2024)
- Convener; College Helpdesk for Reserve Category Candidates (SC/ST/OBC-NCL/EWS/PwBD/ Minority) (2021-2024)
- Member, राजभाषा कार्यान्वयन समिति (2023-2024)
- Member; College Purchase committee (2018-2021)
- Member; College Cultural committee (2013-2018)
- Member; College Sports committee (2013-2016)
- Member; College Automation committee (2014-2016)
- Member; CBCS-LOCF Course revision of Delhi University for BSc (Hons) Home Science, BSc (Pass) Home Science and PGDDPHN (2018-2019)
- Member; Annual Mode Course revision of Delhi University for PFDDPHN (2021-2022)
- Member; UGCF_NEP Course revision of Delhi University for BSc (Hons) Biochemistry, BSc (Hons) Home Science, BSc (Pass) Home Science (2021-2022)

Resource Person

- Participated as a resource person in the Hands-on Capacity Building Workshop for Non-Teaching Staff organized by IQAC, Institute of Home Economics, University of Delhi, New Delhi on June 18, 2024 and delivered a talk on **"IT Skills – Microsoft Word, Excel and Powerpoint"**.
- Participated as a resource person in the workshop series on "Aspects of Biochemistry in Nutrition" organized by Laxmibai College, University of Delhi, New Delhi on Nov 24, 2023, and delivered a talk on **"Gluconeogenesis - Definition, Pathway & Significance" and "Metabolism of Ammonia - The Urea Cycle"**.
- Participated as a resource person in a national workshop on **"Qualitative Analysis of Carbohydrates"** held at the Institute of Home Economics, University of Delhi, New Delhi on Sept

08, 2022.

- Participated as a resource person in a lecture series on "**Understanding lifestyle disorders: A biochemical perspective"** held at the Institute of Home Economics, University of Delhi, New Delhi on Jan 12, 2020
- Participated as a resource person in an orientation program/ hand-on session on "**GeM & CPPP"** held at the Institute of Home Economics, University of Delhi, New Delhi on Oct 16, 2019.
- Participated as resource person in the 4th two-day national technical workshop on **"Introduction to Clinical Biochemistry"** held at the Institute of Home Economics, University of Delhi, New Delhi on Jan 24-25, 2019
- Participated as a resource person in a two-day national workshop **"Introduction to Clinical Biochemistry"** held at the Department of Biochemistry, Institute of Home Economics, University of Delhi, New Delhi on Aug 27-28, 2018
- Participated as a resource person in a two-day symposium **"Replacing Regulatory Experiments on Animals: A introduction to In Silico Models and In Vitro Test Methods"** organized by the Department of Biochemistry, Institute of Home Economics, University of Delhi, New Delhi and PETA India on Oct 26-27, 2017
- Participated as a resource person in a two-day national workshop **"Introduction to Clinical Biochemistry"** held at the Department of Biochemistry, Institute of Home Economics, University of Delhi, New Delhi on Sept 12-13, 2017.
- Participated as a resource person in a technical workshop **"PCR & ELISA"** held at the Department of Biochemistry, Institute of Home Economics, University of Delhi, New Delhi on April 7, 2017.
- Participated as a speaker in a national workshop **"Introduction to Clinical Biochemistry"** held at the Department of Biochemistry, Institute of Home Economics, University of Delhi, New Delhi on Sept 1-2, 2016.