

Curriculum Vitae

Dr. Yuvraj

yuvrajbt@gmail.com, yuvraj@bitmesra.ac.in

+91-9308866031

Teaching and research interests: Bioprocess Engineering; Bioreactor design and scale up; Photobioreactors; Microalgae biotechnology

Higher Education

Ph.D. 2012 – 2017

Dept. of Bioengineering
BIT Mesra

M.Tech. 2008 – 2010

School of Chemical Technology
HBTI Kanpur
Gautam Buddha Technical University

B.Tech. 2004 – 2008

Dept. of Biotechnology
IMS Engineering College, Ghaziabad
Uttar Pradesh Technical University

Academic Appointments

Assistant Professor 2019 – 2020

Dept. of Biotechnology
MIET Meerut

Visiting/Guest Faculty 2017 – 2019

Dept. of Biotechnology
MNNIT Allahabad

Lecturer 2012

Dept. of Biotechnology
NIT Raipur

Lecturer 2010 – 2012

Dept. of Biotechnology
AITH Kanpur

Research

Doctoral Research: “Enhancing and modeling growth of *Chlorella vulgaris* in photobioreactor”

Supervisors – Dr. Padmini Padmanabhan (Prof. & Ex. Dean, BIT Mesra), Dr. A.S. Vidyarthi (Ex. Prof. BIT Mesra)

Masters Research: “Effect of pH variation on lipid production by *Yarrowia lipolytica*”

Supervisors – Dr. Subhash Chand (Ex Prof. Emeritus & Head, IIT Delhi), Dr. R.P.Singh (Ex. Prof. and Director, HBTI Kanpur)

Publications

Yuvraj, Padmanabhan P (2021) Improvements in conventional modeling practices for effective simulation and understanding of microalgal growth in photobioreactors: an experimental study. *Biotechnology and Bioprocess Engineering (Springer)* 26:483-500.

Yuvraj (2021). Microalgal bioremediation: a clean and sustainable approach for controlling environmental pollution. In: Arora S., Kumar A., Ogita S., & Yeu Y.Y. (Eds.). *Innovations in environmental biotechnology (Springer)* ISSN: 978-981-16-4445-0.

Yuvraj, Padmanabhan P (2017) Technical insights on the requirements for CO₂-saturated growth of microalgae in photobioreactors. *3 Biotech (Springer)* 7:119.

Yuvraj, Vidyarthi AS, Singh J (2016) Enhancement of *Chlorella vulgaris* cell density: Shake flask and benchtop photobioreactor studies to identify and control limiting factors. *Korean Journal of Chemical Engineering (Springer)* 33:2396-2405.

Yuvraj Saxena, Subhash Chand, R.P. Singh (2014) Effect of pH cycling on lipid production by *Yarrowia lipolytica*. *International Journal of Engineering Research and Technology* 3:1251-1258.

Achievements and Awards

Recipient of Chairman Board of Governor's Medal for securing highest marks in M.Tech. at Harcourt Butler Technological Institute, Kanpur.

Awarded TEQIP Research Fellowship for securing first position in Ph.D. entrance exam of Birla Institute of Technology, Mesra.

Secured first place in several science and art competitions at the school level.

Trainings, Workshops, and Conferences

Training programmes

"Mathematical Modelling in Science and Engineering" at NIT Raipur (July 2014).

"Basics of Computational Fluid Dynamics" at MNNIT Allahabad (June 2014).

"Effective Grant Writing Skills and Strategic Management of IPR", organized by DBT & BIRAC in association with BCIL at India Habitat Centre, New Delhi (July 2012).

"Effect of Substrate Concentration on Lipid Production by Oleaginous Yeast": project cum training at Biotech Park, Lucknow (April 2010).

"Techniques & Tools of Biotechnology and Bioinformatics" at CIMAP Lucknow (June 2007).

Technical paper presentations

"Increasing cell density and productivity of *Chlorella vulgaris* photoautotrophic cultures" in the Golden Jubilee International Conference on Recent Advances in Chemical and Biochemical Engineering held at NIT Durgapur (October 2015).

“A novel photo-bioreactor design for mass cultivation of microalgae” in the National Biotechnology Conference: "Leading Ideas and Future Encapment-2012" held at ITS Ghaziabad (April 2012)
“Effect of pH variation on lipid production by *Yarrowia lipolytica*” in the 65th OTAI Annual Convention, International Seminar & Expo held in New Delhi (December 2010).

Teaching

Courses taught to undergraduate and graduate students:

MIET Meerut:	Bioprocess Engineering (RBT-601)
	Environmental Biotechnology (RBT-701)
	Bioprocess Engineering & Technology (MTBT-102)
	Bioreactor Analysis and Design (MTBT-041)
MNNIT Allahabad:	Bioprocess Engineering (BT-1403)
	Bioreactor and Plant Design (BT-1606)
	Bioprocess Control and Economics (BT-1801)
	Thermodynamics of Biological Systems (BT-1305)
BIT Mesra:	Bioprocess Plant Design Lab (TBT-2002)
NIT Raipur:	Stoichiometric Calculations (BT-20316)
	Bioethics and Biosafety (BT-20514)
AITH Kanpur:	Fermentation Biotechnology (EBT-601)
	Bioprocess Engineering – II (EBT-042)
	Introduction to Biotechnology (EBT-104)

Membership of Professional Societies

Life member of following associations:

Asian Federation of Biotechnology
Society for Biotechnologists (India)
Association of Microbiologists of India
Indian Science Congress Association