

Brief Profile of Manish Singh Rajput

Name : **Dr. Manish Singh Rajput**
Date of Birth : **22.05.1976**
Highest Qualifications : **Ph.D.**
Present Status : **Head, Deptt. Of Biotechnology**
Marital Status : **Married**
Address (Office) : **Biotechnology Department, A.I.T.H, Kanpur, 208024**
(Resi) : **Ratan Planet Apartment, G.T. Road, Near IIT, Kanpur-209217**
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Email Id : **msrbiotech@gmail.com, msr@aith.ac.in**

Specialization: Biodegradation, Bioremediation, Environmental Biotechnology, Waste Water Treatment

Qualifications: Doctor of Philosophy (Ph.D.), Dr. A.P.J AKTU, Lucknow.
M. Tech (Biotech), Institute of Engineering. & Technology, Lucknow.

Dr. Rajput started his career in the year 2006 as Assistant Professor at Rama Institute of Engineering & Technology, Kanpur. Because of his dedication, hard work, and administrative skills he was promoted to Assistant Director (Projects) for Rama Group of Institutions. Dr. Rajput resigned from Rama Institute of Engineering & Technology, Kanpur as Director Administration in 2009 to join Dr. Ambedkar Institute of Technology for Handicapped (A.I.T.H.), Kanpur.

Dr. Rajput joined A.I.T.H. as an Assistant Professor and soon received charge of Dean, Industrial Research & Development, Incubation, Coordination, at A. I. T. H., Kanpur. During his tenure as Dean IRDC, Dr. Ambedkar Institute of Technology for Handicapped has been granted section 2(f) of UGC Act 1956 by the University grant commission in 2016. During his tenure as Director Administration, R.I.E.T. Kanpur and Asst. Director (Projects), Rama Group of Institutions, he has established 03 Engineering, 02 Management, 02 Nursing & Paramedical, and 02 Medical colleges for Rama Group of Institutions in Kanpur and Hapur Campus (Now Rama University Kanpur).

Dr. Rajput has extensive experience in digital evaluations for Dr. A.P.J. AKTU Lucknow; more than 13 years in teaching, research, management and development. He has guided many B. Tech. projects. He has attended many faculty and staff development programs. To enhance, grow and develop he has attended numerous STPs on Biotechnology. He is a Member of the Board of Studies of Biotechnology, Dr. A.P.J. AKTU Lucknow, and various selection committees. He was Vice-chairman of the Indian Institute of Chemical Engineers Kanpur Chapter and a Life member of BRSI.

Curriculum Vitae

Dr. Manish Singh Rajput

Contact Information

Head

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Dr. Ambedkar Institute of Technology for Handicapped

Kanpur 208024

INDIA

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Employment (Total Teaching & Administrative experience – Approx 15 years)

- Administrator, Rama Hospital, Kanpur (From May 2003 to October 2003)
- Lecturer, Biotech Department, S.D. College of Engineering & Technology, Muzaffar Nagar (From August 2006 to October 2006)
- Assistant Director (Projects), Rama Group of Institutions, Kanpur (From November 2006 to December 2008)
- Director Administration, Rama Institute of Engineering & Technology, Kanpur (From January 2009 to May 2009)
- Head, Deptt. Of Biotechnology, A.I.T.H, Kanpur (From 11/05/2009 to till date)

Education

- Doctor of Philosophy (Ph.D.) in Biotechnology, Dr.A.P.J AKTU, Lucknow, India.
- M.Tech. Biotechnology from Institute of Engineering & Technology, Lucknow.

Significant Contributions

- Established 03 Engineering, 02 Management, 02 Nursing & Paramedical, 02 Medical colleges of Rama Group of Institutions in Kanpur and Hapur Campus (Now Rama University Kanpur).
- Established Newly Department of Biotechnology in AITH, Kanpur. Departmental Laboratories have been modernized and strengthened as Head of the Department and

as faculty. Equipment worth about Rs. 1.5 crore have been purchased for modernization and strengthening of laboratories of the Department.

- Contributed significantly in preparing and getting section 2(f) of UGC Act 1956 by University grant commission in 2016 for AITH, Kanpur.
- Successfully Contributed / Executed AKTU Examination Question papers delivery system through Postal department in all U.P. (First time in U.P).
- As a Control room Incharge of Digital Evaluation first time Executed , Monitored & controlled Digital Evaluation system in AKTU, Lucknow
- Successfully Contributed / Executed AKTU Lucknow Student's degree home delivery system through Postal department in all U.P. (First time in U.P)
- Coordinated significantly in preparing and getting sanctioned an amount of 06 Crores in the DDUQIP Scheme (Deendayal Upadhyay Quality Improvement Programme) of Dr. APJ Abdul Kalam Technical University, Lucknow, India.
- Mainly contributed and coordinated in preparing and getting Approval for Establishment of approved Research Centre of Dr. APJ AKTU, Lucknow in AITH, Kanpur.

Research projects

- A project titled “**Production of biodegradable plastic from potato**” was successfully completed in 2019. The project was sponsored by U.P. Council of Science & Technology, Department of Science and Technology, Government of U.P.
- A project titled “**Construction of microbial fuel cell for waste water treatment**” was successfully completed in 2020. The project was sponsored by U.P. Council of Science & Technology, Department of Science and Technology, Government of U.P.
- A project titled “**Reduction in post-harvest losses in fruits and vegetables using essential oil**” was successfully completed in 2020. The project was sponsored by U.P. Council of Science & Technology, Department of Science and Technology, Government of U.P.

Research Publications in Journals

- Kumar M, Seth A, Singh A K, **Rajput M S**, Remediation strategies for heavy metals contaminated ecosystem: A review. Environmental and Sustainability Indicators (12) 100155 (2021)
- Rajput R.S., **Rajput M S.**, Kumar P. and Srivastava N. K. Evaluation Of Dairy Effluent Detoxification And Removal Efficiency In An Integrated Wastewater Treatment System Using Low-Cost Adsorbents. Rasayan J. Chem., 15(1), 593-599 (2022)
- Singh R., **Rajput M.S.**, & Kumar S. Dairy effluent Biodegradation by endogenous fungal isolates in the integrated waste water treatment system. Journal of water chemistry and technology. **SCI (Springer)**
- **Rajput M.S.**, Dwivedi V. & Awasthi S.K. Enzymatic degradation of pyridine raffinate using response surface and artificial neural network simulation. Indian Journal of Experimental Biology, 58,584-592, (2020). **SCI (CSIR-NASCAIR)**
- **Rajput M.S.**, Dwivedi V. & Awasthi S.K. Biodegradation of Pyridine Raffinate by microbial laccase isolated from *Pseudomonas monteilii* & *Gamma proteobacterium* present in Woody Soil. Biocatalysis and Agricultural Biotechnology, 101650, (2020). **ESCI (Elsevier)**
- **Rajput M.S.** Biodegradation of pyridine raffinate using bacterial laccase isolated from garden soil. Biocatalysis and Agricultural Biotechnology. Volume_17, pp. 32-35, (2019). **ESCI (Elsevier)**
- Pandey A.K., Singh P, Kushwaha A. & **Rajput M.S.** Solution for sustainable development of biodiesel production through microalgae. J. Adv. Res. Alt. Energ. Env. Eco. 3(1), (2016)

Book Chapter

- Singh S, Singh R and **Rajput M.S.** “Nanoparticles: Novel Approach to Mitigate Environmental Pollutants” Biodegradation Technology of Organic and Inorganic Pollutants, edited by Kassio Mendes, Rodrigo de Sousa, Kamila Mielke,2022, <https://www.intechopen.com/chapters/78381>. doi: 10.5772/intechopen.99806
- Kumar S, Rahul, Verma A, Singhal I, **Rajput M.S.**, Sequestering of Heavy Metal Ions from Aqueous Stream by Raw and Modified Lignocellulosic Materials. Advances in Chemical, Bio and Environmental Engineering.CHEMBIOEN 2021. Environmental Science and Engineering. **Springer**, Cham.
- Kumar S, Rahul, **Rajput M S**, “BIOHYDROGEN PRODUCTION USING MICROBIAL ELECTROLYSIS CELL” in **Springer Nature Press**

- Pandey K, **Rajput M.S.** , Pilli Y.S., Tyagi R.D. and Pandey A. Environmental effects of per- and polyfluoroalkyl substances. Current Developments in Biotechnology and Bioengineering: Sustainable Treatment Technologies for Pre- and Poly-fluoralkyl Substances. (2021) – **Elsevier**
- **Rajput M.S.**, Pandey K, Kumar S., Tyagi R.D., “Analysis of lipids: Biomass, Biofuels, Biochemicals : Microbial Lipids-Processes, Products and Innovations, edited by Soccol C.R., Pandey A., Carvalho J.C., (2022) **Elsevier**, ISBN: 9780323906319
- Verma G., Anand P., Verma D., **Rajput M.S.** & Dwivedi V. Microbial Laccase Production and Its Industrial Applications. In: Mishra P., Mishra R.R., Adetunji C.O. (eds) Innovations in Food Technology. (2020). **Springer**, Singapore.

Peer-Reviewed Conference Papers/ Posters

- Singh E, Chandra D, Sahu A, Singh R, Singh S K, **Rajput M.S.**, “Comparative study of Laccase based biodegradation of textile effluents using RSM & ANN” International Conference on Biotechnology for Resource Efficiency, Energy, Environment, Chemicals and Health (BREEECH 2021) by CSIR- Dehradun & BRSI, December 01-04, 2021.
- Tiwari S., Pandey K., Singh S., **Rajput M S.**, “Production of biosurfactants by microbial degradation of petroleum-contaminated soil using response surface methodology & artificial neural network” International Conference on Biotechnology for Resource Efficiency, Energy, Environment, Chemicals and Health (BREEECH 2021) by CSIR- Dehradun & BRSI, December 01-04, 2021.
- Kumar S, **Rajput M.S.**, Sahu A, Vartika, Rahul “Encapsulation of microorganisms for the use in Bioremediation: A Review” International Chemical Engineering Conference by NIT, Jalandhar, September 17 to 19, 2021.
- **Rajput M.S.**, Kumar V, Singh S., Gautam A.S. & Singh Ravish, “Comparative and Kinetic Assessment of Pyridine Raffinate Bioremediation using Bacterial and Fungal Laccase.” International Conference on Biotechnology for Sustainable Agriculture, Environment and Health, Jointly Organized By MNIT, Jaipur and BRSI, Jaipur, April 04-08, 2021.
- Azad S.C., Pandey R., Pandey P., **Rajput M.S.** & Singh S.K. “Mycoremediation of Amoxicillin Using a White Rot Fungus *Phanerochaete Chrysosporium*.” International Conference on Biotechnology for Sustainable Agriculture, Environment and Health, Jointly Organized By MNIT, Jaipur and BRSI, Jaipur, April 04-08, 2021.
- **Rajput M.S.**, Dwivedi V. and Awasthi, Singh R. AICTE sponsored International conference on Frontiers in industrial biotechnology “Biotransformation of Pyridine

Raffinate using a versatile enzyme Laccase isolated from Timber soil” St Joseph’s college of engineering, Chennai, July 27-29, 2020.

- Srivastava G., Singh A. & **Rajput M.S.**, “Biotransformation of pyridine raffinate and its residual mixture with the help of a versatile enzyme laccase isolated from soil. Biosangam 2020 Organised by MNNIT, Allahabad, Feb 21-23, 2020.
- **Rajput M.S.**, Dwivedi V. and Awasthi, CSIR Sponsored International conference on New horizons in Biotechnology “Laccase mediated biotransformation of pyridine raffinate using mathematical model” CSIR-NIIST, Trivendrum & BRSI, Nov.20-24, 2019.
- **Rajput M.S.**, Tiwari A. & Priyanka K., “Bacterial degradation of textile dyes” TEQIP-III Sponsored International conference on Advance materials, textiles and processes (ICAMTP-2017) UPTTI-Kanpur, Oct 14-15, 2017, (I prize).
- **Rajput M.S.**, Sharma A. & Srivastava A. & Ahmad A., “Application of Biotechnology in Textile Industry” TEQIP-III Sponsored International conference on Advance materials, textiles and processes (ICAMTP-2017) UPTTI-Kanpur, Oct 14-15, 2017.
- Pandey A., Singh P. & **Rajput M.S.**, “Biodiesel Production through micro algae” International Conference on Advancing Frontiers in Biotechnology for Sustainable Agriculture & Health. SHAITS, Allahabad, Feb.25-26, 2016
- **Rajput M.S.**, Srivastava A., “Anti-microbial activity of mint against agrobacterium rhizogevae”. National seminar on advances in bioprocess for environmental safety and nutritional security. Genesis-2013 by HBTI Kanpur, March 2-3, 2013.
- **Rajput M.S.**, Srivastava R. & Tripathi S. “Utilization of Agro residues and energy production” in National Seminar on Framework of future technologies and management practice for sustainable development by RIET, Kanpur, Nov. 16, 2013.
- **Rajput M.S.**, Singh C., “Micro propagation & Regeneration an useful tool for crop yield” in National Seminar on Framework of future technologies and management practice for sustainable development by RIET, Kanpur, Nov. 16, 2013.
- **Rajput M.S.**, Srivastava R. & Tripathi S. “Gene Subtraction-A molecular approach” in National Seminar on Framework of future technologies and management practice for sustainable development by RIET, Kanpur, Nov. 16, 2013.
- **Rajput M.S.**, “Attaining organizational effectiveness through values and ethics” National Seminar at RIBS Kanpur, April 13, 2012.
- **Rajput M.S.**, “Role of biotechnology in contemporary era”. National Seminar of Management at RIET, Kanpur, April 10, 2012

- Yadav APS, Srivastava A., **Rajput M.S.**, “Haemoglobin as a model for studying Metal-Protein interaction” in National Seminar on Recent trends in Biotechnology by RIET, Kanpur, Feb 18, 2012.
- Srivastava A., Yadav APS, **Rajput M.S.**, “In vivo study of DHA and ARTESUNATE against MDR malaria in Rodent model” in National Seminar on Recent trends in Biotechnology by RIET, Kanpur, Feb 18, 2012.
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Short Term Courses & Workshop attended

- On Biotechnology & biochemical engineering by National Institute of Technical Teachers Training & Research (NITTR), Chandigarh from Nov. 23 to 29, 2009.
- On Optical fibre communication by National Institute of Technical Teachers Training & Research (NITTR), Chandigarh from Sep. 05 to 09, 2016.
- On Wireless & mobile communication by National Institute of Technical Teachers Training & Research (NITTR), Chandigarh from Oct. 03 to 07, 2016.
- On Coaching of Teachers in Life skills by National Institute of Technical Teachers Training & Research (NITTR), Chandigarh from Jan. 16 to 20, 2017.
- On Universal Human Value & Professional Ethics by Value education Cell (TEQIP-III) at IIT Kanpur from Nov.29 to Dec.06, 2018.

Key Note Speaker

In Seminar “Research & Innovation Pertaining to Biotechnology” held at Naraina Vidyapeeth Engineering & Management Institute, Kanpur on October 5 & 6 2018.

In Faculty development Programme on “Drug Affairs in Pharmaceutical” sponsored by Dr. A.P.J. Abdul Kalam Technical University, Lucknow held at Maharana Pratap Group of Institutions, Kanpur from Jan.14 to 18, 2020.

Details of Administrative Work performed in the institute:

- Working as Dean, Research and Development, Head of the Department since June 2009 to Feb 2016 & July 2018 to till date.
- Working as **DDUQIP Coordinator** (Scheme of AKTU Lucknow).
- Worked as Dean IRDC 2016 – till date.
- Worked as Incharge, Media
- Working as Hostel Warden.
- Working as Member, Anti-Ragging Squad.
- Worked as In-charge AICTE Approval & AKTU affiliation & other affairs.

- Worked as Assistant In charge Training & Placement cell.
- Worked as In-charge Planning & Development.
- Worked as Member Secretary, Nav Nirman Samiti.
- Worked as Member in Various Selection & other Committees several times.

Contribution to Academic Development at University level

- Prepared various courses of Biotechnology at UG and PG Level.
- New electives of Biotechnology have been introduced at both UG and PG levels.
- Appointed as Head Examiner for M.Tech. Biotechnology.
- Acted as External Examiner in HBTU, CSJMU, Rama & various Universities.
- Supervised Projects and Seminars at UG Level.
- Acted as Seminar and Projects incharge of the Department many times.
- Lab manuals have been developed for various UG labs taken time to time.
- Member, Board of Studies Committee of Biotechnology, AKTU Lucknow, Institute of Research Development & Training of Uttar Pradesh Technical Board, Govt. of UP, and various Private universities.
- Syllabus of Biotechnology stream courses have been developed as member of Board of Studies Committees of AKTU, Lucknow, BoS of IRDT, Department of Technical education, Govt. of U.P.

Details of Administrative Work performed at different level.

- **Established** 03 Engineering, 02 Management, 02 Nursing & Paramedical, 02 Medical colleges of Rama Group of Institutions in Kanpur and Hapur Campus (Now Rama University Kanpur).
- Appointed as **Convener/ Member** of Inspection committees for Engineering, Pharmacy & Management Institutes affiliated to AKTU, Lucknow
- Acted as **Nodal officer** for U.P.State Entrance Exam (UPSEE-2020) in Ballia district during Corona Pandemic.
- Acted as **Centre Controller** for UPSEE (AKTU, Lucknow) many times.
- Acted as University **Observer** for AKTU semester examinations many times.
- Acted as **Member** of Central Digital Evaluation Development committee of AKTU, Lucknow.
- Acted as **Coordinator** in Confidential assignments of AKTU, Lucknow.
- Acted as **Member** of Subject code equivalency committee of AKTU, Lucknow,

Membership of Professional Bodies

- Life Member of BRSI
- Life Member IIChe Kanpur Regional office for 2019-21.
- Life Member of CEES

(Dr. Manish Singh Rajput)

