

CURRICULUM VITAE

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SUMMARY

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|--|---|-------------|------------------------|
| Nationality | Indian | | |
| Degrees | B.Sc., B.Ed., M.Sc., Ph.D. | | |
| Area of expertise | Microbiology | | |
| Teaching & Research Experience | 12 Years | | |
| Peer reviewed manuscripts | Total: 52 | Scopus: 15 | Web of Science : 37 |
| Number of Patents | Total: 45 | Granted: 26 | Under Examinations: 19 |
| Number of Projects completed | 07 | | |
| Forigen Research Collboration for 40,000/- USD (Ongoing Project) | Deanship of Scientific Research at King Khalid University, Kingdom of Saudi Arabia vide Project No. RGP2/257/45 | | |

EDUCATION

Double M.Sc., B.Ed. (C.U), PGDEMA (IGNOU), PGDIPR (IGNOU), Ph.D. (Microbiology)

EMPLOYMENT

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|----------------------------|--|
| Assistant Professor | 2019 – to Present; Microbiology , Hiralal Mazumdar Memorial College for Women, West Bengal State University, Kolkata, West Bengal, India. Government of West Bengal |
| Academic Counselor | 2016 – 2019; Microbiology , Indira Gandhi National Open University, Kolkata, West Bengal, India. Government of India |

HONORS & AWARDS

1. Nawab Wajid Ali Shah Award for Scientific Contribution in Society, by Govt. of West Bengal, India <https://www.wbua.org/wp-content/uploads/2023/11/Award-on-Books-National.pdf>
2. Young Scientist Awards 2021 by C P University, Kota, Rajasthan, India.
3. National Award for Research Excellence (Microbiology & Phytomedicine)-2021 by GRF International Awards & Honors (2021) In collaboration with the University of Trunojoyo, Madura (Indonesia) & IDEI (Indonesia).
<https://www.globalconference.info/conference/global-research-foundation-grf-awards-and-honors-2021>
4. National Environmental Education and Research Excellence Award 2021 by ICEE, Kolkata in collaboration with Bharathiar University, St. Xavier College, Ranchi, and M Raj College, W.B, India. <https://www.icee.net.in/award.php>

PEER – REVIEWED PUBLICATIONS

1. **Ahmad, S. R.**, Zeyauallah, M., Ahshahrani, A. M., Dawria, A., Ali, H., Mohieldin, A., Altijani, A.G., Raza, U., Mehdi, M., Akram, S., Hussain, E.R. (2024). Deciphering the Enigma of Neuron-Glial Interactions in Neurological Disorders. *Frontier Bioscience Landmark*. 29(4):142
<https://www.imrpress.com/journal/FBL/29/4/10.31083/j.fbl2904142>
2. **Ahmad, S. R.**, Zeyauallah, M., Ahshahrani, Khan S, M., Muzammil, K., Ahmed, F., Dawria, A., Mohieldin, A., Ali, H., Altijani, A.G. (2024). Exploring the most promising Anti - Depressant Drug targeting Microtubule Affinity Receptor Kinase 4 involved in Alzheimer's Disease Through Molecular Docking and Molecular Dynamics Simulation (accepted in PlosOne for current issue; now in press) <https://journals.plos.org/plosone/>
3. **Ahmad, S. R.**, & Ghosh, P. (2020). Benefits of dietary sesame seed and flaxseed to strengthen the immune system during the COVID-19 pandemic and prevent associated comorbidities-related health risks. *Ann. Phytomed.*, 9(2);1-1 http://www.ukaazpublications.com/publications/wp-content/uploads/2021/01/Vol9_No2_05.pdf
4. **Ahmad, S. R.**, Ghosh P. (2022). A systematic Investigation on Flavonoids, Catechin, β -sitosterol, and Lignin Glycosides from *Saraca asoca* (Ashoka) having Anti-cancer & Antioxidant properties with no side effects. *Journal of the Indian Chemical*, 99 (1), pp-1-10
<https://doi.org/10.1016/j.jics.2021.100293>
5. **Ahmad, S. R.** (2023). Role of Medicinal Plants in Managing Neurodegenerative Diseases, *Ind. J. Pure App. Biosci.* 11(3), 62-69. <http://dx.doi.org/10.18782/2582-2845.9012>
6. **Ahmad, S. R.** (2023). Continent-wise Neuroprotective Medicinal Plants for Managing Parkinson's Disease: A Systematic Review, *Ind. J. Pure App. Biosci.* 11(3), 36-46. <http://dx.doi.org/10.18782/2582-2845.9010>
7. **Ahmad, S. R.** (2023). Bioactive Metabolites & Medicinal Plants: A Promising Approaches for Managing Alzheimer's Diseases (AD). *International Journal of Botany Studies*, 12(5).
https://www.wjpps.com/Wjpps_controller/abstract_id/18835
8. **Ahmad, S.R.**, Ghosh P. (2021). A Systematic Review on Mucormycosis in Corona Patients and its Treatment in India. *J Commun Dis.* 2021;53(3):236-243.
<http://medical.advancedresearchpublications.com/index.php/Journal-Communicable-Diseases/article/view/642>
9. Zahrani, Y., Zeyauallah, M., Khan, S. M., **Ahmad, S. R.**, AlShahrani, M. A., Ahmad, A., Mohieldin, A., Mahmood, E. S., Riaz, F., Alraee, N., A., Muzammil, K., Narapureddy, R., B., Ahmad, M. F. (2024). A study on the prevalence, behavioural patterns, and risk factors of vitamin D deficiency in the population of southern Saudi Arabia. *Progr Nutr.* ;26(1):1-10
<https://doi.org/10.23751/pn.v26i1.15560>

10. Saduzzaman, Md., Mini, K., Shardendu, S., & **Ahmad, S. R.** (2023). Evaluation of cr(vi) reducing capability of bacillus licheniformis DAS1 using a multifactor experimental approach. *Nature Environment and Pollution Technology*, 22(4), 1821–1831. [https://neptjournal.com/upload-images/\(10\)B-4055.pdf](https://neptjournal.com/upload-images/(10)B-4055.pdf)
11. **Ahmad, S.R.**, Kalam A, Ghosh P. (2021) Biocontrol Effect of Lytic Bacteriophages Against Various Foodborne Diseases. *Biomedical Pharmacol J*; 14(2) DOI: <https://dx.doi.org/10.13005/bpj/2174>
12. **Ahmad, S.R.**, (2021) Medicinal Plants Products and Phytochemical Extract as Potential Therapies for Coronavirus: Future Perspective. *Biomedical Pharmacol J*; 14(2) <https://dx.doi.org/10.13005/bpj/2181>
13. Kalam, A., **Ahmad, S. R.** (2023). *Bacillus velezensis* BNC -1, a Novel Salt-Tolerant Biocontrol Agent Obtained from Salted Hilsa Fish Prohibits the Growth of Vegetable/Fruit Pathogen. *International Journal Zoological Investigation*; 9 (2), 875-885. <https://doi.org/10.33745/ijzi.2023.v09i02.098>
14. **Ahmad, S. R.**, Karmakar, S., Roy Anindita (2022). Thymoquinone: A Promising Natural Compound with Preventive & Curative Properties against Covid-19, *International Journal of Zoological Investigation*; 8(2), 461-485 <https://doi.org/10.33745/ijzi.2022.v08i02.051>
15. Kumari Mini, Md. Saduzzaman, Shardendu Shardendu and **Ahmad, S.R.**, Utilising the potential of *Bacillus stratosphericus* MKS for managing arsenic contamination of soil: A feasible and sustainable approach. *Intern. J. Zool. Invest.* 9(2): 1404-1416, 2023. <https://doi.org/10.33745/ijzi.2023.v09i02.098>
16. Firdaus, B., Reena, M., **Ahmad, S.R.**, (2024) *Trichoderma atrobrunneum*: In vitro analysis of exoenzyme activity and antagonistic potential against plant pathogen from agricultural fields in the Patna region, India; *The scientific temper*; 15(1): 1569-1575 <https://scientifictemper.com/index.php/tst/article/view/1172>
17. **Ahmad, S. R.**, Dutta S., (2022). A systematic investigation of Trigonelline, Diosgenin, Protodioscin, and Dioscin from *Trigonella foenum-graecum* (fenugreek seeds) having anti-cancer and antioxidant properties without side effects, *International Journal of Zoological Investigation*; 8(2), 404-418 <https://doi.org/10.33745/ijzi.2022.v08i02.050>
18. **Ahmad, S. R.**, Alam S, I, Karmakar, S., (2022). A systematic review on multi-nutritional and phytopharmacological importance of *Perilla frutescens*. *International Journal of Green Pharmacy*, 16(1). <https://doi.org/10.22377/ijgp.v16i1.3215>
19. **Ahmad, S R** (2022). Teachers' Role in Developing Emotional Intelligence among the Children, *Int. J. Phar. & Biomed. Res.* 9(6), 4-7. doi: <http://dx.doi.org/10.18782/2394-3726.1130>
20. **Ahmad, S. R.** (2022). Impact Assessment of COVID-19 on Indian Agriculture, *Curr. Res. Agri. Far.* 3(5), 17-22. doi: <http://dx.doi.org/10.18782/2582-7146.176>
21. **Ahmad, S. R.** (2022). Impact of Integration of Inclusive Education and Information and Communication Technology on the learning process of a Child with Down Syndrome, *Ind. J. Pure App. Biosci.* 10(5), 28-34. doi: <http://dx.doi.org/10.18782/2582-2845.8946>
22. **Ahmad, S. R.**, Masuldar, A. (2022). Screening of Phytoconstituents from *Curcuma longa*, *Piper nigrum* & *Murraya koenigii*, Methanolic extracts, and in-vitro efficacy of their combinations on Nematode Parasite (*Ascaridia galli*) of *Gallus gallus domesticus*. *Intern. J. Zool. Invest.* Vol. 8, No. 1, 744-749 <https://doi.org/10.33745/ijzi.2022.v08i01.081>
23. **Ahmad, S.R.**, & Ghosh, P., (2020). Application of Nanotechnology in the Food Industry and Its Potential Toxicity-Related Health Issues. *Indian Journal of Pure and Applied Biosciences* .8(4), 678-689; <http://dx.doi.org/10.18782/2582-2845.8336>
24. **Ahmad, S R.**, (2022). Bio-floc Technology (BFT): A Natural Tool of Bioremediation to Clean the Lentic Water Environment and Cost-Effective Novel Technology for the Fish Industry, *Emrg. Trnd. Clim. Chng.* 1(2), 23-27. <http://www.climatechangejournal.org/form/2022%20Volume%201,%20issue%202/ETCC-2022-1-2-23-27.pdf>

25. **Ahmad, S R.** (2022). Artificial Intelligence: Use in Clinical and Genomic Diagnostics, *Emrg. Trnd. Nutr.* 1(2), 42-50. <http://www.nutraceuticalsjournal.com/form/2022%20Volume%201,%20issue%202/ETN-2022-1-2-42-50.pdf>
26. **Ahmad, S. R.** (2022). The Study of Emotional Intelligence in Artificial Intelligence, *Int. J. Phar. & Biomed. Res.* 9(6), 1-3.
27. **Ahmad, S. R.,** (2021). Conventional Medicinal plants as Natural Food preservatives for Food Preservation in Food Industry. *Indian J. Applied & Pure Bio.*36(2),337-348 <http://biology-journal.org/journal/volume36/issue72/ijapb36-2-12.html>
28. **Ahmad S. R.,** Kalam A, and Ghosh P., (2021). Bioactive metabolites (alkaloids, flavonoids, saponin, steroids, phenols, and tannins) extracted from stem and roots of *Chlorophytum borivilianum* and their antibacterial activity. *Intern. J. Zool. Invest.* 7 (2): 507-511, 2021. <https://doi.org/10.33745/ijzi.2021.v07i02.027>
29. **Ahmad, S.R.,** (2021). A Study of Osteoporosis due to lack of Vitamin - D deficiency through a small Survey in Kolkata, (West Bengal), *Ind. J. Pure App. Biosci.* 9(4), 101-110. DOI: <http://dx.doi.org/10.18782/2582-2845.8764>
30. Kalam A, **Ahmad, S. R.,** (2021). Analysis on the Antifungal Activity of Bacteria Isolated from Rotten Fruits and Vegetables Along with their Partial Morphological and Biochemical Characterization. *Biosc. Biotech. Res. Comm.;* Vol 14 No (1) pp -308 -3015 DOI: <http://dx.doi.org/10.21786/bbrc/14.1/44>
31. **Ahmad, S.R.,** & Tamang. M. (2020). Study of Indigenous Medicinal Plants of Northeast States of India as Potential Therapies for Malaria. *Biosciences, Biotechnology Research Asia,* 17(3) <http://dx.doi.org/10.13005/bbra/2860>
32. **Ahmad, S. R.,** and Bhunia A. S (2021). Potentials, threats, and challenges of ornamental fish biodiversity of East Kolkata Wetland (EKW), West Bengal, India. *Intern. J. Zool. Invest.* 7 (2): 428-432, 2021. <https://doi.org/10.33745/ijzi.2021.v07i02.015>
33. Kalam, A., & **Ahmad, S. R.** (2020). Antifungal Activity of Bacteria Isolated from Sauerkraut and its Partial Characterization, *Ind. J. Pure App. Biosci.* 8(6), 137-145. <http://dx.doi.org/10.18782/2582-2845.8439>
34. **Ahmad, S. R.** (2020). Green Vegetables and Physical Exercise: Importance during (COVID-19) Pandemic to Boost Immunity, *Ind. J. Pure App. Biosci.* 8(4), 727-739. <http://www.ijpab.com/vol8-iss4a91.php>
35. **Ahmad, S.R.,** & Hasan, N. (2020). Fish Diversity and Conservation Perspectives in Wetland of Koshi River, in Araria District (North Bihar), India. <https://mbimph.com/index.php/UPJOZ/article/view/1729>
36. **Ahmad, S. R.,** (2020). Possible Zoonotic links for Coronavirus Diseases – 19: An Update Review. *Biosci. Biotech. Res. Comm.;* 13(4) <http://dx.doi.org/10.21786/bbrc/13.4/7>
37. **Ahmad, S.R.,** (2020). Vermiculture Technology in India: Its Scope, challenges, and Opportunities. *Intern. J. Zool. Invest.* 7 (2): 462-470, <https://doi.org/10.33745/ijzi.2021.v07i02.021>
38. **Ahmad, S.R.,** & Ghosh, P. (2020). Probiotic Potential of Lactic acid to Improve Immunity during COVID -19 Pandemic. *Indian Journal of Pure and Applied Biosciences.* 8(5), 66-72; <http://dx.doi.org/10.18782/2582-2845.8346>
39. **Ahmad, S.R.,** & Hasan, N. (2020). Study of Insect Fauna in Tea Garden Ecosystem of North Bengal, West Bengal, India. *Advances in BioResearch,* 11(6), 25-46 http://soeagra.com/abr/abr_nov2020/8.pdf
40. Tamang, M., Pal, K., Rai, S., K., Kalam, A., **Ahmad, S. R.** (2017). Ethnobotany Survey of threatened medicinal plants of West Sikkim. *International Journal of Botany Studies.* 2(6), 116-125. <http://www.botanyjournals.com/archives/2017/vol2/issue6/2-6-38>

41. **Ahmad, S. R.**, & Kalam, A. (2017). Study of Diversity in East Kolkata Wetland Including Gosaba Island with Special Reference to Fungi. *Biosciences, Biotechnology Research Asia*, 14(2), 805-816. <http://dx.doi.org/10.13005/bbra/2512>
42. **Ahmad, S.R.**, Prasad, K.D.V., Bhakuni, S., Hedau, A., Narayan, P.B.S., Parameswari, P. (2023). The Role and Relation of Emotional Intelligence with Work-Life Balance for Working Women in Job Stress. *The Scientific Temper*, 14(1):1-3. <https://scientifictemper.com/index.php/tst/article/view/358>
43. **Ahmad, S. R.**,(2023). Yadav Rupali, Hosur Ravi, Vidhiya R., Nagaral Mahesh U., Kulkarni Girish, and Das Puja: The implication of Artificial Intelligence (AI) in animal husbandry. *Intern. J. Zool. Invest.* 9(1): 436-438, 2023. <http://ijzi.net/Issue/2241532355IssueMS48.pdf>
44. **Ahmad, S. R** (2023). The Use of Genomics and Bioinformatics to Hasten Agricultural Improvement in Response to Climate Change, *Emrg. Trnd. Clim. Chng.* 2(1), 1-6. <http://www.climatechangejournal.org/form/2023%20Volume%202,%20issue%201/ETCC-2023-2-1-1-6.pdf>
45. **Ahmad, S. R.**, (2023). Food Vaccines and their Application in the Treatment of Cancer and COVID-19, *Emrg. Trnd. Nutr.* 2(1), 1-9. <http://www.nutraceuticalsjournal.com/form/2023%20Volume%202,%20issue%201/ETN-2023-2-1-1-9.pdf>
46. **Ahmad, S.R.** & Karmakar, S. (2023). The Role of Medicinal Plants in Drug Discovery across the World, *Ind. J. Pure App. Biosci.* 11(2), 30-41. <http://dx.doi.org/10.18782/2582-2845.8995>
47. **Ahmad, S. R.** (2023). A Call to Action: Computational Cum Molecular Biology towards A Green Recovery, *Emrg. Trnd. Clim. Chng.* 2(1), 7-10. <http://www.climatechangejournal.org/form/2023%20Volume%202,%20issue%201/ETCC-2023-2-1-7-10.pdf>
48. **Ahmad, S. R.** (2023). Do Medical Practitioners Need Emotional Intelligence? *Int. J. Phar. & Biomed. Rese.* 10(1), 1-6. <http://ijpbr.vitalbiotech.org/form/2023%20Volume%2010,%20issue%201/IJPBR-2023-10-1-1-6.pdf>
49. **Ahmad, S. R.**, & Kalam, A. & Pal, K. (2014). Antioxidant properties of Leave to Root Extracts of *Chlorophytum borivilianum*. *World Journal of Pharmacy and Pharmaceutical Science.* 3(12):1809-1823 https://www.wjpps.com/Wjpps_controller/abstract_id/16055
50. **Ahmad, S. R.**, & Kalam, A. & Pal, K. (2014). In Vitro Antioxidant properties of *Chlorophytum borivilianum* (Santapau & Fernandez). *World Journal of Pharmacy and Pharmaceutical Science.* (2014). 3(12): 937-947; https://www.wjpps.com/Wjpps_controller/abstract_id/2386

PATENTS

International Patents (United State of America):

- 1) **Revolutionary Carbon-Based Smart Wheelchair:** Elevating Comfort with Cervical Traction, USB Rechargeable Fan, and Interactive Mobile Display **Ahmad, S. R.**, Mohamed, N. S. A., Bajaber, M. A., Saad, M. H., Abd-Rabboh, H. S. M., Uosef, H. A. Ibrahim., Algarni, H., Ali Ibrahim, H. E. and Elbehairi, S. E. I., US Patent No. 29901624, Priority Date 03 September 2023
Research output: Design Patent <https://www.uspto.gov/patents/apply/checking-application-status/check-filing-status-your-patent-application>
- 2) **A Vaccine Delivery Device with Smart Technology**
Ahamd, S. R., Mohamed, N. S. A., and Bajaber, M. A., U S Patent No. 29901747, Priority Date 05 September 2023
Research output: Design Patent <https://www.uspto.gov/patents/apply/checking-application-status/check-filing-status-your-patent-application>

❖ International Patents (United Kingdom):

- 1) **A device for Identifying the Bioactive Metabolites of Plants Using advanced scanning Technology**
Ahmad, S. R., & Md Zeyauallah, 27 January 2024, U K Patent No. 6336920, Priority date 30 December 2023
Research output: Patent
<https://www.registered-design.service.gov.uk/find/6336920>
- 2) **IoT-Based Portable Laminar Air Flow Device for Microbiological Laboratory Purposes**
Ahmad, S. R., & Md Zeyauallah, AlShahrani, A.M., March 2024, U K Patent No. 6342707, Priority date 28 January 2024
Research output: Patent
<https://www.registered-design.service.gov.uk/find/6342707>
- 3) **A Bioelectric Device for the Treatment of Chronic Sinusitis**
Ahmad, S. R., 20 June 2023, UK Patent No. 6289480, Priority date 12 June 2023 -
Research output: Patent
<https://www.registered-design.service.gov.uk/find/6289480>
- 4) **Breast Cancer Screening Device**
Ahmad, S. R., 20 June 2023, UK Patent No. 6289478, Priority date 12 June 2023
Research output: Patent
<https://www.registered-design.service.gov.uk/find/6289478>
- 5) **A Smart Cervical Cancer Screening Device**
Ahmad, S. R., 20 June 2023, UK Patent No. 6289479, Priority date 12 June 2023
Research output: Patent
<https://www.registered-design.service.gov.uk/find/6289479>
- 6) **Sensor-Based Glucose Monitoring Device for Diabetic Patients**
Ahmad, S. R., 20 June 2023, UK Patent No. 6289481, Priority date 12 June 2023
Research output: Patent
<https://www.registered-design.service.gov.uk/find/6289481>
- 7) **A Portable Device to Analyse the Biochemical Profile of Urine**
Ahmad, S. R., 20 June 2023, UK Patent No. 6289483, Priority date 12 June 2023
Research output: Patent
<https://www.registered-design.service.gov.uk/find/6289483>
- 8) **Portable and Hanging Wall Laminar Air Flow Unit**
Ahmad, S. R., 21 June 2023, UK Patent No. 6289484, Priority date 12 June 2023
Research output: Patent
<https://www.registered-design.service.gov.uk/find/6289484>
- 9) **A Device to Predict Menopause in Females Based on the Level of Anti-Mullerian Hormone (AMH)**
Ahmad, S. R., 27 June 2023, UK Patent No. 6289482, Priority date 12 June 2023
Research output: Patent.
<https://www.registered-design.service.gov.uk/find/6289482>
- 10) **IoT-based Health Monitoring and Security System for Medicinal Plants**
Ahmad, S. R., & Ushakiran A., 26 May 2023, UK Patent No. 6282272, Priority date 12 May 2023
Research output: Patent
<https://www.registered-design.service.gov.uk/find/6282272>

11) **A smartwatch to monitor movement symptoms of Parkinson's patients and assess response to drug & physiotherapy treatment**

Ahmad, S. R., Ahmad, F., Abiha, U., Das, P., June 2023, UK Patent 6289486, Priority date 12 June 2023

Research output: Patent <https://www.registered-design.service.gov.uk/find/6282486>

12) **IoT-based Wearable Device to Track and monitor healthcare for Monitoring Alzheimer's Patients' Health**

Ahmad, S. R., Ahmad, F., Abiha, U., Das, P., June 2023, UK Patent 6289485, Priority date 12 June 2023

Research output: Patent

<https://www.registered-design.service.gov.uk/find/6289485>

13) **A Solar Powered Grass Cutter, Seed Sowing, Ploughing and Mud Removal Machine**

Ahmad, S. R., Mohanka, R., Singh, M., Das, P., 24 August 2023, UK Patent No. 6303309, Priority date 11 August 2023

Research output: Design Patent

<https://www.registered-design.service.gov.uk/find/6303309>

14) **An IOT & AI based Pneumonia Detection Device**

Ahmad, S. R., Devi, S., Vijayaraj, A., Begum, T. N., Geegi, P. G., Khan, W., 18 November 2023, UK Patent No. 6324846, Priority date 08 November 2023

Research output: Design Patent

<https://www.registered-design.service.gov.uk/find/6324846>

❖ **International Patents (Germany)**

1. **System to Spirulina Production Using Intelligent Circuit.**

Ahmad, S. R., Benu, M., Anuradha, Y., Tapas, K. P., Pradipta, K. M & Biswaranjan, A., 11 April 2022, German Patent No. 2022032217364500DE, Priority date 22 March 2022

Research output: Patent

2. **Mobile Application Controlled Small & Cost-Effective Spirulina Growth & Health Monitoring Device.**

Ahmad, S. R., Chakraborty, A., Chowdhary, S., Das P., Jamadar, A. R., Jha S. S., Roy, B. & Upadhyay S. K., 02 May 2022, German Patent No. 2022041918434200DE, Priority date 19 April 2022

Research output: Patent

3. **Paddy Monitoring System Using IoT & Intelligent Circuit for Agriculture-based High Financial Outcomes.**

Ahmad, S. R., Moustafa, M. F. M., Kamal, M. A., Selvam, M., Das, P. & Jamader, A. R., 11 May 2022. German Patent No. 2022042912144600DE, Priority date 29 April 2022

Research output: Patent

4. **Water Condensation System Using Coolant Liquid Technology for Germinating of Seeds**

Ahmad, S. R., Das, P., Hussain, A., Jamader, A. R. & Rao, S., 24 June 2022, German Patent No. 202206011111900DE, Priority date 01 June 2022

Research output: Patent

5. **Small and Low-Cost Portable Temperature Control IoT Device for Baby Incubator with Automatic Security Management**

Ahmad, S. R., Das, P., Jamader, A. R., Kalam, A., Saif, S., Sarkar, A., & Selvam M., 18 November 2022, German Patent No. 2022100814335400DE, Priority date 08 October 2022

Research output: Patent

National Patents (India)

1. [A Unique Herbal Health Drink for TYPE- 2 Diabetic Individuals and Method Thereof.](#)
Ahmad, S. R., and Ghosh, P., 2022, Indian Patent Application No. 202231021308, Priority date 09 April 2022
Research output: Patent
2. [A Novel Calcium-Enriched Soymilk-Based Probiotic Curd for Lactose Intolerant Patients and the Method Thereof](#)
Ahmad, S. R., and Ghosh, P., 2022 Indian Patent Application No. 202231021351, Priority date 09 April 2022
Research output: Patent
3. [A Healthy Millet-Based Probiotic Curd and Method Thereof](#)
Ahmad, S. R., and Ghosh, Pritha., 2022, Indian Patent Application No. 202231021509, Priority date 11 April 2022
Research output: Patent
4. [A Synbiotic Misti Dahi \(Sweet Curd\) and Method Thereof](#)
Ahmad, S. R., and Ghosh, Pritha., 2022, Indian Patent Application No. 202231021652, Priority date 11 April 2022
Research output: Patent
5. [An Aromatic Oil Composition for Relieving the Pain during Dysmenorrhoea](#)
Ahmad, S. R., and Ghosh, P., 2022, Indian Patent Application No. 202231037165, Priority date 29 June 2022
Research output: Patent
6. [Recognize Medicinal Plants and Bioactive Metabolites Automatically on the Spot using Deep Learning](#)
Ahmad, S. R., and Das, P., 2022. Indian Patent Application No. 202231038229, Priority date 03 July 2022
Research output: Patent
7. [Environment –Friendly vehicle Natural Fibre composite Material and Preparation Method as well as](#)
Ahmad, S. R., Sakthivel, D., Kachana, V., Kistan, A., Muthukkumar, M., Sekar, K., and Prasad, R. A., 2022, Indian Patent Application No. 202241060838, Priority date 25 October 2022
Research output: Patent
8. [A System for Evaluating Human Relation Management in an Organization Using Scanner and Smart Devices and Working Method Thereof](#)
Ahmad, S. R., Rajesh, J., Chandrasekar, A., Meenkera, M. K., Dhanraj, A. J., Yazhinian, S., 2022, Indian Patent Application No. 202241061393, Priority date 27 October 2022
Research output: Patent
9. [A Blockchain-based system for Medical Data and access control in E-Health and Method Thereof](#)
Ahmad, S. R., Subhashini, P., Rathiya, R., Meenakshi, S., Radhika, M., Krishna, V. Anantha, Nallathamby Rachel., 2022, Indian Patent Application No. 202241062559, Priority date 02 November 2022
Research output: Patent
10. [An Unmanned Aerial Vehicle \(UAV\) Assembly for Monitoring Agricultural Waste by Image Processing System and Method thereof](#)
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Research output: Patent

11. [An IP Protocol-Based Central Regional Business Management System and Operation Method Thereof](#)
Ahmad, S. R., Ilakkiya, T., Daxit, I., Patil, S. R., Laksmi, T. R. K., Dhayalan, V., 2022, Indian Patent Application No. 202241070999, Priority date 08 December 2022
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12. [A Novel Marine Molecule for Neurological Disorders.](#)
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Ahmad, S. R., Krishna, R. R., Jagannayaki, K., Suresh, N., Ahmad, S., Srivastava, A. K., Sendil, L. M., Ranjini, D., Mayank, M. A., Neetu, and Das, P., 2023, Indian Application No. 202331001606, Priority date 08 January 2023
Research output: Patent
14. [Development of VISR Smartwatch with Yoga Asanas to Relieve the Stress of a Visually-Impaired Person](#)
Ahmad, S. R., Agrawal, A., Bhakuni, S., and Das, P., 2023, Indian Patent Application No. 202331004332, Priority date 23 January 2023
Research output: Patent
15. [IoT-Enabled Fruit Quality Testing Device](#)
Ahmad, S. R., and Faizan, Ahmad., 2023, Indian Patent Application No. 385158-001, Priority date 24 April 2023
Research output: Design Patent
16. [Unique Shape & Configuration of Processed Cat Food.](#)
Ahmad, S. R., and Das, P., 2023. Indian Patent Application No. **376660-001**, Priority date 03 January 2023
Research output: Design Patent
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18. [Unique Shape & Configuration Two-in-One Square Bottle](#)
Ahmad, S. R., and Das, P., 2022. Indian Patent Application No. **367648-001**, Priority date 13 July 2022
Research output: Design Patent
19. [Unique Shape & Configuration Two in one Round Bottle](#)
Ahmad, S. R., and Das, P., 2022. Indian Patent Application No. **367650-001**, Priority date 13 July 2022
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Research output: Design Patent
21. [Plant Bioactive Metabolites Scanner: Unveiling Nature's Chemical Components](#)
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Research output: Design Patent

22. [Portable UV Menstrual Cup Sterilizer](#)
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 Research output: Design Patent

BOOKS

1. **Introduction to Pharmacology** (ISBN No. **978-93-85908-67-5**) Good Writers (International Publication), Mumbai, Maharashtra, India https://www.amazon.in/Introduction-Pharmacology-Ramdas-Kamble-Nalini/dp/B0BSR6433K/ref=sr_1_1?crd=1VBFA3MIKAPXV&keywords=rehan+ahmad&qid=1681970457&prefix=rehan+ahmad%2Caps%2C697&sr=8-1
2. **Aquarium Fish Keeping** (ISBN No. **978-93-88963-94-7**) AABS Publication House (International Publication), Kolkata, West Bengal, India <https://www.amazon.in/Aquarium-fish-keeping-Rehan-Ahmad/dp/B08QVSDZ74>
3. **Animal Diversity** (ISBN No. **978-93-88963-95-4**) AABS Publication House (International Publication), Kolkata, West Bengal, India https://www.amazon.in/Animal-Diversity-Dr-Rehan-Ahmad/dp/B08QZ557R4/ref=sr_1_4?dchild=1&keywords=rehan+ahmad&qid=1634048166&s=books&sr=1-4
4. **Insect Vector & Disease** (ISBN No. **978-93-85908-34-7**) Purushottam Publisher (International Publication), Kolkata, West Bengal, India https://www.amazon.in/Insect-Vectors-Diseases-Rehan-Ahmad/dp/B08WJB1JC8/ref=sr_1_5?dchild=1&keywords=rehan+ahmad&qid=1634048166&s=books&sr=1-5
5. **Vermicompost Production** (ISBN No. **978-93-90390-97-7**) NITYA Publication (National Publication), Bhopal, India https://www.amazon.in/Skill-Enhancement-Course-Vermicompost-Production/dp/B08M985267/ref=sr_1_3?dchild=1&keywords=rehan+ahmad&qid=1634048166&s=books&sr=1-3
6. **Edited Book: Effective Scientific and Technological Approach in Combating COVID-19 across the World.** (ISBN No. **978-93-90873-42-5**) Avenel Press, Kolkata, West Bengal, India https://www.amazon.in/Effective-Scientific-Technological-Approach-Combating/dp/B0986N16BL/ref=sr_1_1?dchild=1&keywords=rehan+ahmad&qid=1634048166&s=books&sr=1-1
7. **An Introduction to Western Philosophies of Education** (ISBN No. **978-93-85908-67-5**) Purushottam Publisher, (International Publication), Kolkata, West Bengal, India <https://www.amazon.in/Introduction-Western-Philosophy-Education/dp/9385908677>

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2. A. V. Agrawal, T. S. Kumari, M. Soniya, S. Meenakshi, R. Jegadeesan and **Ahmad, S. R.**, "A Comprehensive Analysis on Co-Saliency Detection on Learning Approaches," *2023 3rd International Conference on Innovative Practices in Technology and Management (ICIPTM)*, Uttar Pradesh, India, 2023, pp. 1-6. <https://ieeexplore.ieee.org/document/10118121/authors>

ADMINISTRATIVE EXPERIENCE

- ❖ Serving as **HOD** at the department of Zoology from April '2024 to present.
- ❖ Serving as **Coordinator** for Indira Gandhi National Open University (LSC Code 28166) from April '2021 to present.
- ❖ Serving as Convenor of the **Research & Development Cell (RDC)** since July '2020 at H M M College, Kolkata
- ❖ Serving as Joint Convenor at **Student Counselling Cell** at H M M College for Women since Nov. 2019, Kolkata
- ❖ Serving as Coordinator of **Unnat Bharat Abhiyan**, Govt. of India at H M M College, Kolkata

SKILLS

- ❖ **Cellular Biology**: Cell Culture, Tissue Culture, Staining,
- ❖ **Microbiology**: preparation and purification of adenoviruses
- ❖ **Microscopy**: Confocal, Fluorescence, and Light & Compound Microscope, Phase Contrast Microscope
- ❖ **Molecular Biology**: Vector design: primers design, digestions, ligations, cloning.
- ❖ **Cloning**: transformation, RNA extraction, reverse transcription, PCR, DNA purification, DNA gel analysis, quantification, and extraction.
- ❖ **Biochemistry**: Southern, Northern & Western blotting, (co-) Immunoprecipitation, pulse-chase, ELISA, enzymatic assays.
- ❖ **Analytical Methods**: Spectrophotometry, Chromatography (thin layer, ion exchange, HPLC)
- ❖ **Bioinformatics** – Molecular Docking, Molecular Dynamics, Simulation, Proteomics
- ❖ **Programming Language and Data Analysis**- R, Python, Image J, MATLAB, Biopython, Linux.

MEMBER OF PROFESSIONAL BODIES

1. Member of Editorial Board, Indian Journal of Pure and Applied Biosciences (UGC Listed & Peer Reviewed Journal; ISSN No. (E)2582-2845)
2. Life Time Member of “The Indian Science Congress Association”, Kolkata, India
3. Life Time Member of “The Social Environmental and Biological Association (SEBA)”, India
4. Life Time Member of “The Zoological Society of India, Kolkata, India
5. Member of “The International Society of Zoological Science, China
6. Member of “The International Society of Environmental Information Sciences”, Canada
7. Member of “International Society for Infectious Diseases, Brookline

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Journal: Frontiers in Veterinary Science; Article Reviewed 02
2. Elsevier: (03/2021 – Present): Review Editor
Journal: Heliyon ; Article Reviewed 21
3. Springer (04/2021): Review Editor
Journal: Bulletin of the National Research Centre; Article Reviewed 04
4. Springer (04/2021): Review Editor