




Shivaji College Faculty Details Proforma

Title	Dr.	First Name	Aeshna	Last Name	Nigam	Photograph
Designation	Assistant Professor					
Address	Department of Zoology, Shivaji College, New Delhi-110027					
Office Phone No.						
Residence						
Mobile						
Email	aeshna.nigam@gmail.com					
Web-Page						
Educational Qualifications	B.Sc, M.Sc, PhD					
Degree	University/Institute			Year		
Ph.D.	University of Delhi			2012		
M.Phil./M.Tech.						
PG	University of Delhi			2007		
UG	Miranda House, University of Delhi			2005		
Any Other Qualification						
Career Profile						

Assistant Professor in Shivaji College, University of Delhi (2nd January 2012- till date)
Have taught students of B.Sc. (H) Zoology (I, IInd and IIIrd year), B.Sc. (P) Life Sciences (IInd and IIIrd year), B. Sc. (H) Chemistry (Ist year) and B.Sc. (P) Physical Sciences and Applied Physical Sciences.

University Teaching Assistant (May, 2008 –December,2011)
Assisted professors in teaching master courses in the Department of Zoology, University of Delhi, India.

Administrative Assignments

Have been an active part of the NAAC Team of Shivaji College at the time of visit in 2015. Currently member of the College Purchase Committee and Placement Cell.

Areas of Interest/Specialisation

Molecular Biology

Subjects Taught

- Cell Biology
- Molecular Biology
- Bioinformatics
- Ecology
- Evolutionary Biology
- Introduction to Biology
- Developmental Biology
- Genetics and Genomics
- Biochemistry

Innovation Project/Research Projects (Major Grants/Research Collaboration)

Co-investigator of Innovation Project ‘Comparative analysis of heavy metal toxicity and pesticide contamination in vegetables collected from local sites and organic stores in Delhi’ funded by University of Delhi

Publications Profile (Research Papers/Books)

1. **Nigam A.**, Bamel K., and Nijhawan, S. 2016. Effect of Heavy Metals on Reproductive Health of Women: Health Alarm! International Journal of Basic and Applied Biology, 247-251.
2. Bamel K., **Nigam A.** and Nijhawan, S. 2016. Heavy Metal Toxicity affects Male Reproductive Health. 2016. Proceedings of National Seminar on Water and Air Quality in Urban Ecosystem, 1-6.
3. **Nigam A.**, Bamel K., Malik, D. and Nijhawan, S. 2016. Heavy metal contamination in vegetables: Source of Nutrition or Health Hazard? *Journal of Basic and Applied Engineering Research*, Vol 3(1), 60-65 ISSN-2350-0077
4. Dwiwedi, V., Kumari, K., Gupta, S.K, Kumari, R, Tripathi, C., Lata P., Singh, A.K., Niharika, N, Kumar, R., **Nigam A.**, Garg, N. and Lal, R. 2015 *Thermus parvatiensis* RLT sp. nov., Isolated from a Hot Water Spring, Located atop the Himalayan Ranges at Manikaran, India. Indian J. Microbiol. 55(4), 357-365, ISSN-0973-7715, Impact Factor--0.457
5. **Nigam, A.**, Almabruk, K.H., Saxena, A., Yang, J., Mukherjee, U., Kaur, H., Kohli, P., Kumari, R., Singh, P., Zakharov, L.N., Singh, Y., Mahmud, T. and Lal, R. 2014. Modification of Rifamycin Polyketide Backbone Leads to Improved Drug Activity Against Rifampicin-Resistant *Mycobacterium tuberculosis*. J Biol Chem, 289 (30), 21142-21152, ISSN no.- 0021-9258 Impact factor-4.6.
6. Lal, D., Jindal, S., Kumari, H., Jit, S., **Nigam, A.** Sharma, P., Kumari, K. and Lal, R. 2013. Bacterial diversity and real-time PCR based assessment of linA and linB gene distribution at hexachlorocyclohexane contaminated sites.. J Basic Microbiol, 53,1-11, ISSN-1521-4028, Impact Factor-1.198.
7. Sangwan, N., Lata, P., Dwivedi, V., Singh, A., Niharika, N., Kaur, J.; Anand, S.; Malhotra, J., Jindal, S., **Nigam, A.**, Lal, D., Dua A., Saxena A., Garag, N.; Verma, M.; Kaur, J.; Mukherjee, U.; Gilbert, J.A., Dowd, S. E., Raman, R., Khurana, P., Khurana, J., Lal R. 2012. Comparative Metagenomic analysis of soil microbial communities across three Hexachlorocyclohexane gradients. PLoS ONE, 7(9), 1-12, ISSN 1932-6203, Impact factor-3.73
8. Dwiwedi, V., Sangwan, N., **Nigam A.**, Niharika, N., Khurana, P., Khurana, J., and Lal, R. 2012. Draft Genome Sequence of *Thermus* sp. RL Isolated from Hot Water Spring Located a top the Himalayan Ranges at Manikaran, India. J Bacteriol, 194(13), 3534, ISSN 1098-5530, Impact factor-3.193.
9. Verma, M., Kaur, J., Kumar, M., Kumari, K., Saxena, A., Anand, S., **Nigam, A.**, Ravi, V., Raghuvanshi, S., Khurana, P., Tyagi, A. K., Khurana, J. P. and Lal, R. 2011. Whole Genome Sequence of Rifamycin B Producing *Amycolatopsis mediterranei* S699. J. Bacteriol. 193, 5523-5524, ISSN 1098-5530, Impact factor- 3.193.
10. **Nigam, A.**, Jit, S and Lal, R. 2010. *Sphingomonas histidinilytica* sp. nov. isolated from hexachlorocyclohexane (HCH)- dumpsite, India. Int. J. Syst. Evol. Microbiol. 60, 1038- 1043, ISSN-1466-5034, Impact factor-2.112.
11. Sharma, P., Verma, M., Bala, K., **Nigam, A** and Lal, R. 2010. *Sphingopyxis ummariensis* sp. nov., isolated from hexachlorocyclohexane (HCH)-dumpsite in north India. Int. J. Syst. Evol. Microbiol. 60, 780-784, ISSN-1466-5034. Impact factor-2.112.
12. Lal, R., Dadhwal, M., Kumari, K., Sharma, P., Singh, A., Kumari, H., Jit, S., Gupta, S.K., **Nigam, A.**, Lal, D., Verma, M., Kaur, J., Bala, K. and Jindal, S. 2008. *Pseudomonas* sp. to *Sphingobium indicum*: a journey of microbial degradation and bioremediation of hexachlorocyclohexane. Indian J. Microbiol. 48, 3–18, ISSN-0973-7715, Impact Factor--0.457.

13. Anand, S., Malhotra, J., Dua, A., Garg, N., Saxena, A., Sangwan, N., Lal, D., Verma, M., Jindal, S., Kaur, J., Kumari, K., **Nigam, A.**, Niharika, N., Kaur, J., Jit, S., Bala, K., Negi, P. L. and Lal, R. 2010. A New Life in a Bacterium through Synthetic Genome: Landmark experiments by Craig Venter. Indian J. Microbiol. 48, 125-131, ISSN-0973-7715, Impact Factor--0.457

CHAPTERS IN BOOK:

1. **Nigam, A.** and Dua, A. 2016. Running Out of Time: The Decline of great Indian Bustard. Wildlife Management: Concept, Analysis and Conservation, Daya Publishing House, India, 247-256.
2. **Nigam A** and Nijhawan, S. 2016. A body to sell, a Story to tell- Sex workers in India. Utkarsha: Epitomizing Progress. Prithavi Prakashan, 59-61, ISBN-978-81-86845-41-0.
3. Dua, A. and **Nigam, A.** 2016. Faces of courage: Acid attack survivors. Utkarsha: Epitomizing Progress. Prithavi Prakashan, 66-69, ISBN-978-81-86845-41-0
4. **Nigam, A.** 2015. The Mutability and Repair of DNA. E content for MHRD project, National Mission on Education Information Communication Technology, India
5. **Nigam, A.** and Nijhawan, S. 2015. The evolving face of Women in Indian Advertisement. Sansrishti-Creator of Good Things. Prithavi Prakashan, 44-52. ISBN-81-8645-38-D
6. Dua, A. and **Nigam, A.** 2015. XX vs XY: The Richer Sex. Sansrishti-Creator of Good Things. Prithavi Prakashan, 62-65. ISBN-81-8645-38-D
7. Anand, S., Malhotra, J., Niharika, N., Lal, D., Jindal, S., Kaur, J., **Nigam, A.**, Garg, N., Lata, P., Kaur, J., Sangwan, N., Singh, AK., Dua, A., Saxena, A., Dwivedi, V., Mukherjee, U., Lal, R. 2013. Bioremediation of hexachlorocyclohexane (HCH) pollution at HCH Dumpsites. Springer- Verlag Berlin Heidelberg, 387-404, Online ISBN- 978-3-642-36143-2

Conference/Seminar/Faculty Development Programme/Workshop

1. Participated and poster presented in Participated and oral presentation in 4th International Conference on “Science and Arts of Holistic Health : Issues, challenges, oppurtunities, prevention, awareness” held on 25th February, 2017, in Jawaharlal Nehru University
2. Participated in the International Conference on “Role of Microbe-Plant-Animal Interactions in Human Health” held at University of Delhi from 26th-28th September 2017.
3. Participated and poster presented in 2nd International Conference on “Public Health: Issues, Challenges and Oppurtunities, Prevention, Awareness (Public Health, 2016) on 21st May, 2016.
4. Participated and oral presentation on ‘Toxic Effect of Heavy Metals on Reproductive Health of Women’ at Environmental Concerns of 21st Century: Indian and Global Context’ organized by Zakir Hussain Delhi College (Evening) on 21-22 March, 2016.
5. Participated and presented poster in “National Seminar on Water and Air Quality in Urban Ecosystem” organized by Eco-Club Shivaji College, University of Delhi on 22nd March, 2016.

6. Participated and poster presented in National Symposium on Lifestyle Disorders (NSLD): Understanding the Molecular Mechanism held in Shivaji College, University of Delhi on 28th January 2016
7. Participated in International Conference on “Public Health: Issues, Challenges and Opportunities, Prevention, Awareness (Public Health, 2016) ” organized by Daulat Ram College, University of Delhi on 15-16 January, 2016
8. Participated and was awarded the young scientist award in 55th annual conference of Association of Microbiologists of India ‘Empowering Mankind with Microbial Technologies’ from 12-14 November, 2014 at Tamil Nadu Agricultural University, Coimbatore, Tamil Nadu.
9. Participated in International conference on “Empowerment of Women in Developing World” organized by Women’s Development Cell, Shivaji College from 1st- 2nd April, 2013 at University of Delhi, Delhi
10. Participated in 51st Annual Conference of Association of Microbiologists of India entitled ‘International Conference on Microbial Biotechnology for Sustainable Development’ held at Panjab University, Chandigarh, Punjab from 3-6 November, 2011.
11. Participated in ISCB International symposium ‘A decade of experience in Red and Technology Management’ organized by Indo-Swiss collaboration in Biotechnology (ISCB) from 10-11 March, 2011 at New Delhi.
12. Participated in International conference on “Recent trends in Developing Bioremediation Strategies for Hexachlorocyclohexane (HCH) & Other Chlorinated Contaminants” organized by Indo-Swiss collaboration in Biotechnology (ISCB) from 9th- 11th February, 2011 at University of Delhi, Delhi.
13. Participated in the 51st Annual Conference of Association of Microbiologists of India entitled “International Symposium on Recent advances in Cross-disciplinary Microbiology: Avenues & Challenges” from 14th-17th December, 2010 at Birla Institute of Technology, Ranchi, Jharkhand.
14. Participated in Phase III meeting of Indo-Swiss Collaboration in Biotechnology (ISCB) “Environmental Risk and Bioremediation of Hexachlorocyclohexane Isomers” on 16th November, 2009 at the Department of Zoology, University of Delhi, Delhi.
15. Participated in the 49th Annual Conference of The Association of Microbiologists of India entitled “International Symposium on Microbial Biotechnology: Diversity, Genomics & Metagenomics” from 18th-20th November, 2008 at University of Delhi, Delhi.
16. Participated in first co-ordination meeting of Indo-Australian Collaboration in Biotechnology (IACB) “Enabling Technologies for the Enzymatic Bioremediation of Cyclic Organochlorine Residues”, with project partners from CSIRO (Australia) and IMTECH

(India) held on 11th- 12th September 2007, at the Department of Zoology, University of Delhi.

17. Participated in 30th All India Cell Biology Conference and Symposium on ‘Molecules to Compartments: Cross-Talks and Networks’ organized by Department of Zoology, University of Delhi, held on 2-4 February, 2007.

18. Participated in National Seminar on ‘Chemistry of Life’ organized by Miranda House held on 18-20, January, 2005, Miranda House, University of Delhi.

Research Guidance (*Supervision of Doctoral Thesis/Dissertations*)

NA

Awards and Distinctions

- Awarded the ‘**Certificate of Most Significant Societal Impact**’ for the project ‘Comparative analysis of heavy metal toxicity and pesticide contamination in vegetables collected from local sites and organic stores in Delhi during the Research Display at the Convocation Ceremony on 19th November, 2016.
- Awarded The **Best Speaker Award** for paper presentation at the International Conference on “Public Health: Issues, Challenges and Opportunities, Prevention, Awareness (Public Health, 2016) ” organized by Daulat Ram College, University of Delhi on 15-16 January, 2016
- Awarded **Young Scientist Award** by Association of Microbiologists on 13th November, 2014
- Qualified **National Eligibility Test (NET)** exam sponsored by Council for Scientific and Industrial Research (CSIR) year 2006 , Govt. of India
- Awarded JRF (Junior Research fellowship) 2007- 2009 sponsored by **CSIR Govt. of India**
- Awarded SRF (Senior Research fellow) from 2009- present sponsored by **CSIR Govt. of India**

- Awarded **certificate of excellence** for scoring the highest marks in post graduation, Miranda House, University of Delhi, India (2007)
- Awarded **certificate of excellence** for scoring the highest marks in graduation, Miranda House, University of Delhi, India (2005)

Memberships

- Member of the American Society for Microbiology (Member ID- 56763477)
- Member of Association of Microbiologists of India (Member ID- 3885-2014)

Other Academic Activities

Activities in Shivaji college:

- Helped in the successful organization of the annual Zoology fest 'Oyster, 2012' of Shivaji college as well as conducted the entire programme on stage.
- Helped in the successful organization of 'Bioconvergence', 26-27 march, 2014, the combined annual academic festival of Biochemistry, Botany and Zoology departments of Shivaji college.
- Organized the workshop, 'Workshop for Laboratory assistant /attendants of Chemical and Life Sciences' from 16- 18, July, 2014.
- Was the resource person in INSPIRE camp 14-18th December, 2016 held in Shivaji College, University of Delhi
- Was the resource person in the workshop entitled "3rd Lab Skill Training Workshop for Laboratory Attendants /Assistants of Chemical and Life Sciences" under Internal Quality Assurance Cell (IQAC) from July 10 -14, 2017 in Shivaji college, University of Delhi
- Organized an educational trip to Department of Anthropology to educate the students on the Evolution of Human/Mankind on 6th April, 2017
- Organized an educational trip to Department of Geology to educate the students on the Evolution of Human/Mankind on 6th April, 2018
- Helped in the successful organization of the annual Zoology fest 'Oyster, 2012' of Shivaji college as well as conducted the entire programme on stage.

Cultural/Extracurricular Activities

Organised Workshop 'Kisan Jagrukta Karyashala' in Najafgarh area on 28th September, 2016 to create awareness among farmers and educate them about use of pesticides.



Signature of Faculty Member