FACULTY PROFILE

Name	**NAVEEN KANGO**					Date of Birth: 12.07.1974				
Designation	PROFESSOR			Date of holding Present Post		31.03.2014				
Name of the Department and School	MICROBIOLOGY					SCHOOL OF BIOLOGICAL SCIENCES				
Contact Details	Email : nkango@gmail.com					Mobile: 9425635736				
Additional Responsibility in the university, if any	Co-ordinator, Sophisticated Instrumentation Centre									
Educational Qualifications (UG onwards)	M.Sc., Ph.D.									
Research Area/Specialization	Microbial Enzymes									
Awards/ Honors / Fellowship Conferred (With details thereof)	Fellow, Mycological Society of India (MSI)- 2019 Gold Medal in M.Sc. (Applied Microbiology and Biotechnology) 1995 Gour Samman for securing maximum marks in Life Science Faculty 1995 DoL Scarce Skill post doctoral fellowship, South Africa (2004) UGC-CIMO fellowship, Finland (2008-09)									
Summary of Publications (Number only)	Research Papers	**43**	Books	03	Chapter in Books	11	Seminars/ Conferences Proceedings	06	Projects	

Research Projects (Completed and Ongoing):

S.No.	*Title*	*Funding Agency*	*Duration*	*Sanction order No. & Date*	*Amount in Rs. Lakh*	*Completed/ongoing*
1.	Characterization of mannan hydrolyzing enzymes from microorganisms	UGC, New Delhi	2013-2017	F. No. 42-474/ 2013SR	10.50	Completed
2.	Production, scale-up and characterization of anti-leukemic L-asparaginases from some native actinomycetes and fungi.	M.P. Council of Science & Technology (MPCST), Bhopal	2015-2017	3589/CST/R&d/ Bio.Proj. / 2014	5.68	Completed
3.	Optimization and Scale-up of Process Parameters for high fructose syrup (HFS) production using *Aspergillus niger* OP-3 and Penicillium sp. NFCCI 2768 inulinase.	Madhya Pradesh Biotechnology Council (MPBC), Bhopal	2012-2015	PA-23/656 dt. 22.11.2012	6.58	Completed

PUBLICATIONS – 2013 onwards **:**

National Publications(Details of Research Papers – 2013 onwards):

2013	• Saxena A., Upadhyay, R. Kumar, D. and **Kango, N.** (**2013**) Isolation, antifungal activity and characterization of soil actinomycetes. **Journal of Scientific and Industrial Research** 72: 491-497(NISCAIR) **(IF 0.735)**
2015	• Saxena A., Upadhyay R. and **Kango, N.** (**2015**) Isolation and identification of actinomycetes for production of novel extracellular glutaminase free L-asparaginase. **Indian Journal of Experimental Biology**(NISCAIR) 53: 786-793 **(IF**
2015	• Rawat H. K., Soni H. and **Kango N.** (**2015**) Screening of inulinase producing fungi isolated from inulin containing sources and use of exoinulinase in generation of fructose. **Madhya Bharti**, 59: 10-14.
2016	• Agrawal, S., Rawat, H.K. and **Kango, N. (**2016**)** Isolation and screening of alkaline protease producing bacteria from different soil habitats, **Madhya Bharti** 60: 44- 48.

International Publications (Details of Research Papers – 2013 onwards):

2013	• Ganaie M.A., Gupta, U.S. and **Kango, N.** (**2013**)Screening microorganisms for Fructosyl Transferase (FTase) activity for generation of fructo-oligosaccharides (FOS). **Journal of Molecular Catalysis B: Enzymatic**97: 12– 17 • Soni H. and **Kango, N.** (**2013**) Hemicellulases in Lignocellulose Biotechnology: Recent Patents. **Recent patents in Biotechnology** 7: 207-218
2014	• Ganaie M.A., Rawat, H.K., Wani, O.A., Gupta, U.S. and **Kango, N.** (**2014**) Immobilization of fructosyltrasferase by chitosan and alginate for efficient production of fructo-oligosaccharides. **Process Biochemistry** 49: 840-44.**(IF 2.8)**

2015	• Rawat H.K., Ganaie, M.A. and **Kango, N.** (**2015**) Production of inulinase, fructosyltransferase and sucrase from fungi on low-value inulin-rich substrates and their use in generation of fructose and fructooligosaccharides. **Antonie van Leeuwenhoek** 107(3):799-811 **(IF 1.9)** • Rawat H.K., Jain S.C. and **Kango, N.** (**2015**) Production and properties of inulinase from *Penicillium* sp. NFCC 2768 grown on inulin containing vegetal infusions. **Biocatalysis and Biotransformation** 33(1):61-68 **(IF 1.6)** • Soni H., Ganaie A, Pranaw K and **Kango, N.** (**2015**) Design-of-experiment strategy for production of mannanase biocatalysts using palm kernel cake and its application to degrade locust bean and guar gum. **Biocatalysis and Agricultural Biotechnology** 4(2): 229-234 **(IF 2.14)**
2016	• Rawat H.K., Soni, H., Treichel, H. and **Kango, N.** (**2016**) Biotechnological potential of microbial inulinases: Recent perspective. **Critical Reviews in Food Science and Nutrition** 57 (18): 3818 - 3829 (**IF 6.7)** • Ahirwar, S., Soni, H., Rawat H.K., Ganaie, A., Pranaw, K. and **Kango, N.** (**2016**) Production optimization and functional characterization of thermostable β-mannanase from *Malbrancheacinnamomea* NFCCI 3724 and its applicability in mannotetraose (M4) generation. **Journal of the Taiwan Institute of Chemical Engineers** 63:344-353 (**IF 3.83)** • Soni, H., Rawat, H.K., Pletschke, B.I. and **Kango, N. (**2016**)** Purification and characterization of β-mannanase from *Aspergillus terreus* and its applicability in depolymerization of mannans and saccharification of lignocellulosic biomass. **3 Biotech** 6: 136 **(IF 1.78)** • Ahirwar, S., Soni, H., Rawat, H.K., Prajapati, B.P. and **Kango, N. (2016)** Experimental design of response surface methodology used for utilisation of palm kernel cake as solid substrate for optimised production of fungal mannanase. **Mycology,** 7 (3): 143-153 • Rawat H.K., Soni, H., Treichel, H. and **Kango, N.** (**2016**) Biotechnological potential of microbial inulinases: Recent perspective. **Critical Reviews in Food Science and Nutrition** 57 (18): 3818 - 3829 (**IF 6.7)** • Ahirwar, S., Soni, H., Rawat H.K., Ganaie, A., Pranaw, K. and **Kango, N.** (**2016**) Production optimization and functional characterization of thermostable β-mannanase from *Malbrancheacinnamomea* NFCCI 3724 and its applicability in mannotetraose (M4) generation. **Journal of the Taiwan Institute of Chemical Engineers** 63:344-353 (**IF 3.83)**
2017	• Ahirwar S., Soni H., Prajapati B., **Kango, N.** (2017) Isolation and Screening of thermophilic and thermotolerant fungi for production of hemicellulases from heated environment. **Mycology** 8: 125-134 • Rawat, H.K., Soni**,** H., **Kango, N.** and Ganesh kumar, C. (2017) Continuous generation of fructose from *Taraxacumofficinale* tap root extract and inulin by immobilized inulinase in a packed-bed reactor. **Biocatalysis and Agricultural Biotechnology** 9: 134-140. **(IF 2.14)** • Soni, H., Rawat, H.K., Ahirwar, S. and **Kango, N. (2017)** Screening, statistical optimized production, and application of β-mannanase from some newly isolated fungi. **Engineering in Life Sciences17(4), 392–401 (IF 2.3)**
2018	• Jana, U.K., Prajapati, B.K., Suryavanshi, R.K., Soni, H.K. and **Kango, N.** (**2018**) Production optimization and characterization of MOS generating β-mannanase from *Aspergillus oryzae*. **Biresource Technology**268: 308-314 **(IF 5.8)** • Agrawal S., Sharma I., Prajapati B.P., Suryawanshi R.K., **Kango N.(2018)** Catalytic characteristics and application of L-asparaginase immobilizedon aluminum oxide pellets. **International Journal of Biological Macromolecules** 114: 504–511 **(IF 4.7)** • Prajapati, B.P., Suryawanshi, R.K., Agrawal,S., Ghosh, M. and **Kango, N.** (**2018**) Characterization of cellulase from *Aspergillus tubingensis* NKBP-55 for generation of fermentable sugars from agricultural residues. **Bioresource Technology** 250: 733-740. **(IF 5.8)**
2019	• Choukade, R.. and **Kango, N. (2019)** Characterization of a mycelial fructosyltransferase from *Aspergillus tamarii* NKRC 1229 for efficient synthesis of fructooligosaccharides. **Food Chemistry** 286: 434-440**(IF 5.3)** • Suryawanshi, R.K., Jana, U.K., Prajapati, B.P. and **Kango, N. (2019)** Immobilization of *Aspergillus quadrilineatus* RSNK-1 multi-enzymatic system for fruit juice treatment and mannooligosaccharide generation **Food Chemistry** 289: 95-102 **(IF 5.3)** • Agrawal, S., Kango, N. (2019). Development and catalytic characterization of L-asparaginase nano-bioconjugates. **International Journal of Biological Macromolecules** 135: 1142–1150 **(IF 4.7)** • Ghosh, M., Dey, K.K. and **Kango, N.** (2019). Investigation of the Internal Structure and Dynamics of Cellulose by 13C-NMR Relaxometry and 2DPASS-MAS-NMR Measurements. **Journal of Biomolecular NMR** 73: 601–616 **(IF 2.319)** • Ghosh, M., Prajapati, B.P., **Kango, N.** and Dey, K.K. (2019). A comprehensive and comparative study of the internal structure and dynamics of natural β-keratin and regenerated β-keratin by solid state NMR spectroscopy. **Solid State Nuclear Magnetic Resonance**. 101: 1-11**(IF 2.02)** • Ghosh, M., Prajapati, B.P., Suryavanshi, R.K., Dey, K.K. and **Kango, N.** (2019). Study of the effect of enzymatic deconstruction on natural cellulose by NMR measurements. **Chemical Physics Letters** 727: 105-115 **(IF 1.86)**
2020	• Prajapati B.P., Jana U.K., Suryawanshi R.K., Kango, N. (2020)Sugarcane bagasse saccharification using *Aspergillus tubingensis* enzymatic cocktail for 2G bio-ethanol production. **Renewable Energy** 152: 653-663**(IF 5.3)** • Jana, U.K., Kango, N. (2020). Characteristics and bioactive properties of mannooligosaccharide derived from agro-waste mannans. **International Journal of Biological Macromolecules**. 149: 931-940 **(IF 4.7)**
Books Published – 2013 onwards	
2013	**Textbook of Microbiology by N. Kango** (2010; Reprint 2013) I.K. International Publishers and Distributors, New Delhi, ISBN 9789380026442. p 436.
2018	**Economic Botany and Biotechnology (2018).** (Dr. Anil K. Thakur, Dr. Susheel K. Bassi and **Dr. Naveen Kango)** S.P. Jain, B.E., S. Dinesh & Co., Jalandhar

Chapters in Books – 2013 onwards	
2013	Soni H. and **Kango, N.** (2013) Microbial mannanases: properties and applications In Advances in Enzyme Biotechnology (Eds. Shukla, P. and Pletscke, B.I.) Springer India pp. 41-56.
2017	**Kango, N.**Soni, H. and Rawat H. (2017) Extremophilic Xylanases In Extremophilic Bioprocessing of Lignocellulosic Feedstocks to Biofuels, Value-Added Products, and Usable Power (Eds. Rajesh K. Sani and R. Navanietha) Springer USA pp. 73-88.
2019	• **Kango, N.**, Jana, U. and Choukade, R. (2019) Fungal Enzymes: Sources and Biotechnological *In* Applications in *Advancing Frontiers in Mycology and Mycotechnology- Basic and Applied Aspects of Fungi*. (Eds. Satyanarayana, T., Deshmukh, S.K. and Deshpande, M.V.) pp. 515-536 • Sharma, I., Kapale, R. and **Kango, N.** (2019) Ethnic Fermented Foods and Beverages of Madhya Pradesh *InHistory, Culture and Science of Ethnic Fermented Foods and Alcoholic Beverages of India* (Ed. Tamang, J.P.) Springer Nature Singapore Pte Ltd., Singapore. (In Pres)

National Seminar/Conference/Workshops (Attended – 2013 onwards**)**

2020	Presented oral presentation on Microbial enzymes for generation of 2G-Bioehyanol and prebiotic oligosaccharides from Agrowaste in Science Communicators Meet 2020 held during 107th Indian Science Congress held at University of Agricultural Sciences, GKVK, Bengaluru. 5-6 January 2020
2019	Delivered MSI Fellowship lecture onCellulases and hemicellulases of Aspergillus tubingensis: Application in sugarcane bagasse and rice straw valorization in Recent Advances in Biodiversity, Biology and Biotechnology of Fungi & 46th Annual Meeting of the Mycological Society of India, Organized by Department of Biotechnology, Pondicherry University, Kalapet, Pondicherry, 7 - 9 Nov 2019,
2019	Delivered an invited talk on Milestones in Microbiology in the INSPIRE internship program organized by Gandhi PR college, Bhopal. 18 Oct 2019
2019	Delivered an invited talk on Characteristics of some interesting microbial enzymes Seminar on "Recent Trends in Biological Sciences Department of Microbiology, Barkatullah University, Bhopal 24 May 2019
2019	Delivered an invited talk on Recent trends in solid waste management., Y. C. Institute of Science, Satara, Maharashtra 30 Jan 2019
2019	Delivered an invited talk on Microbial glycosidases in Dept of Microbiology, M.D. University, Rohtak, Haryana 31 Jan 2019
2019	Delivered a talk as resource on Spectrophotometric Measurements in Biological Sciences in Refresher course organized by HRDC, Dr. HarisinghGourVishwavidylaya, Sagar 9 Jan 2019
2018	Delivered a talk on Exploring Microbial Diversity in Inspire Science Camp organized at Shivaji Science college, Amravati, Maharashtra 27 Dec 2018
2018	Delivered an invited lecture on Harnessing Microbial Diversity for green technologies in National conference on Botany in relation to society and environment held at Govt. TRS College, Rewa 30 March 2018.
2017	Delivered an invited lecture on Cellulase and hemicellulase from *Aspergillus tubingensis* National Conference on Fungal Biology: Recent Trends and Future Prospects & 44rd Annual Meeting of Mycological Society of India Department of Botany, University of Jammu, Jammu. 16 - 18 Nov 2017
2017	Delivered an invited lecture on Tools and Techniques in Microbiology Short Term Course (HRDC1-17) on Research Methodology 1st Jul - 06 Aug 2017
2017	Delivered a plenary talk on Harnessing Microbial Diversity For Green Technologies in National seminar on 'Toxicological Effects on Biodiversity' held at Govt. Girls PG college (GDC), Rewa. 28 March 2017
2017	Chaired a session in National seminar on Digitization of Biodiversity using DNA Barcodes held at Dept of Zoology, Dr. HarisinghGour Vishwavidyalaya, Sagar 12 Feb, 2017.
2017	Delivered a plenary talk in International Conference on Genetic Engineering and Biotechnology: 21st Century's Fortier science in the Department of Biotechnology, Jamshedpur Women's College (JSWC). 3-4 February, 2017.
2016	N. Kango Delivered an invited lecture on Mannanolytic Activities of Some Fungi in 43rd Annual meet of Mycological Society of India held at BISR, Jaipur 16-18 Nov 2016
2016	N. Kango Delivered an invited lecture on Harnessing Microbial Diversity for Enzyme Based Green Technologies in National Workshop on Biodesigning organized by Dept of Biological Science, RD University, Jabalpur 29 March 2016
2016	Delivered an invited lecture on 'Harnessing Microbial Diversity for Enzyme Based Green Technologies' in National Workshop on Higher Education and Bio-Designing Organized by Bio–Design Innovation Centre, R.D. University, Jabalpur 29 March, 2016
2016	Delivered an invited lecture on 'Production of inulinase, fructosyltransferase and sucrase from fungi and their use in generation of fructose and fructo-oligosaccharides' in National Conference on Emerging Trends in Fungal Biology and Plant Protection Organized by Centre of Advanced Study in Botany, Institute of Science, Banaras Hindu University, Varanasi. 16-18 Feb, 2016
2016	Delivered an invited lecture on 'Production optimization and functional characterization of thermostable β-mannanase from *Malbrancheacinnamomea* NFCCI 3724 and its applicability in mannotetraose (M4) generation' in National Seminar on Plants, Microbes and Environment: Interaction, Challenges and Remedies Organized by Department of Botany, Dr. H.S. Gour VV, Sagar M.P. 20-21 Feb, 2016
2016	Delivered an invited lecture on 'Microbial enzymes in green technology' Enzymes in State Level Seminar on Eco-Friendly Technology Organized by Department of Zoology, Govt. Auto. Girls P.G. College of Excellence, Sagar. Jan 27-28, 2016
2016	Delivered an invited lecture on Exploring Microbial Diversity for Industrial and Therapeutic Enzymes in 4th

	International Conference on Challenges in Environmental Science and Technology Organized by Faculty of Science and Engineering of Swami Vivekanand University, Sagar Feb 27-28, 2016
2015	Exploring Microbial Diversity for Industrial and Therapeutic Enzymes in National conference on Co-axial living with microbes: impact on health & environment Maharaja Ranjit Singh College, Indore 16 Oct 2015
2015	Lead lecture on Production and Characterization of Industrial and Therapeutic Enzymes from Native Microorganisms in National conference on Recent Trends In Applied Microbiology, Human Health and Enviornment Organized by Department of Microbiology, Bundelkhand University, Jhansi. 27 March 2015
2015	Delivered an invited talk on Exploring Microbial Diversity as a source of therapeutic and industrial enzymes on DBT funded 21 days refresher course on " Molecular cloning, DNA sequencing and Sequence analysis" (15 Sept -5 Oct, 2015) at Centre for excellence in Biotechnology (CEBT), MPCST, Bhopal 26 Sept 2015
2015	Exploring Microbial Diversity for Therapeutic and Industrial Enzymes National Workshop on Cell and Molecular Biology, People's University, Bhopal 23 Sept 2015
2015	Presented a paper on Isolation and screening of L-Asparaginase producing bacteria and actinomycetes from the soil samples National conference in evolving trends in biotechnology by Dept of Biotechnology, Dr. HSGVV, Sagar 28-30 March 15
2015	Participated and presented a paper in Intellectual Properties Rights Workshop held Sponsored by MPCST, Bhopal and organized by IG Govt. Engg. College, Sagar, MP 25 April 2015
2015	Delivered an invited talk on Biotechnological applications of microbial Enzymes: Therapeutic and Industrial Perspective in National conference on Bioremediation and our Environment, Noble college, Sagar, Sponsored by MPCST, Bhopal 16-17 May 2015
2013	Presented a paper entitled Production and properties of inulinase from *Arthriniumpucciniodes* NFCCI 2432 in Indian Science Congress held at Kolkata 5-7 Jan 2013

National Seminar/Conference/Workshops (Organised – 2013 onwards)

2013	MP Biotechnology Council sponsored Events on Microbial technology (22.2. 2013- 23.2. 2013) Quiz, Assay, Debate and Model making
2013	MP Biotechnology Council sponsored Events on Microbial technology (21.2.2014- 22.2.2014) Quiz, Assay, Debate and Model making
2014	MP Biotechnology Council sponsored Workshop (20.01.2014 - 3.02. 2014) Hand's on training on Microbial Biotechnology
2018	Course Coordinator, MHRD GIAN (25.06.2018- 30.06.2018) Beneficial plant microbe molecular interactions Foreign Expert Dr. Harsh Bais, University of Delaware, USA
2019	Convener, Workshop on Advance Imaging and Microscopy-2019 (25.02.2019- 27.02.2019) Advance Imaging and Microscopy

International Seminar/Conference/Workshops (Organised – 2013 onwards)

2014	Organizing secretary, DST-Purse International Conference (13.02.2014-15.02.2014) Frontier Discoveries and Emerging Opportunities in Life Sciences
2017	Convener (IPCBS) Sponsored by DST, DBT and UGC (11.01.2017 -13.01.2017) International Conference on Interface of Physical, Chemical and Biological Sciences

No. of Patents Filed (with date, title and other details – 2013 onwards)

Indian Patent Application No. 1911/MUM/2014 dated 12.06.2014 "A process for production of novel L-asparaginase with anti-leukemic activity "Indian Patent Application in the name Department of Biotechnology (**DBT), New Delhi & Dr. H. S. Gour Central University, Sagar**. Inventors: R. Upadhyay, A. Saxena and **N.Kango**. **(Under Examination)**

No. of Ph.D. Awarded:	06
No. of Ph.D. Scholars working:	08

No. of Foreign Visits : 02

Memberships in Academic Bodies:

- Life Member, Indian Science Congress Association
- Life Member, Association of Microbiologists (AMI) of India.
- Life Member, Mycological Society of India
- Life Member, Society of Basic and Applied Mycology

Other Academic Achievements :

(i) Membership of Editorial Boards: National/ International (With details of the journal(s) and duration)

- Section Editor, Kavaka (Journal of Mycological society of India) Joint Editor, Madhya Bharti

(ii) Reviewer of the Journal(s) (With details of the journal(s) and duration)

- Biotechnology for Biofuels, Food Biotechnology, International Jr. of Biological Macromolecules, Biotechnology Reports, Journal of Molecular Catalysis B: Enzymatic, Applied Microbiology and Biotechnology, Applied Biochemistry and Biotechnology, Indian Journal of Microbiology, Bioresource Technology, Letters in Applied Microbiology, Process Biochemistry, Biocatalysis and Biotransformation, African Journal of Microbiology Research, African journal of Biotechnology, Fungal Biology, Marine Biotechnology, Carbohydrate Polymers, 3 Biotech etc. (2014-2020)

(iii) Membership of the Board of Studies/School Board / Academic Council/ Executive Council (Within/ outside the university)

- Member BOS,I Microbiology, Bundelkhand University, Jhansi
- Chairman, BOS, Microbiology, Dr. HSGVV, Sagar
- Member, Academic Council, Dr. HSGVV, Sagar