Priya Ranjan Kumar

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PUBLICATIONS:

1. **Development of Artificial Neural Network Modeling of P-Cresol Biodegradation**. *International Journal of Advanced Biotechnology and Research,* 2014, Vol.-5 (1), 43-53.

2. **Study of Antioxidant and Antimicrobial Properties, Phytochemical screening and analysis of Sap Extracted from Banana (Musa acuminata) pseudostem**. *International Journal of Advanced Biotechnology and Research,* 2014, Vol.-5 (4), 649-658.

3. **Homology Modeling and Docking Studies of Japanese Encephalitis Virus Proteins like Envelope Protein and NS1 Protein**. *International Journal of Applied Biology and Pharmaceutical Technology [IJABPT]*, 2015, Vol.- 5(2), 126-131.

4. **Human Genome Project: Expectations and Current Status**. *Journal of Analytical & Pharmaceutical Research [JAPLR], 2016,* Vol.-2(4), 29.

5. **Identification of Metabolites through GC/LC–MS Processed Data using Different Reference Libraries and Their Comparison.** *J Pharm Biomed Sci,* 2016, Vol.-6 (6), 363-368.

EDUCATIONAL QUALIFICATION:

Educational Background	Educational Institution	Board/ University	Percentage/ CGPA	Year of completion
M.Tech (Bio-informatics)	IIIT-Hyderabad	IIIT-Hyderabad	7.58	2013
B.E. (Biotechnology)	BIET Davangere, Karnataka	V.T.U. Belgaum	70.00 %	2011
Intermediate	Urdu College, Gopalganj, Bihar	B.S.E.B. Patna	60.00 %	2007
X^{th} class	Madhaw High School, Gopalganj, Bihar	B.S.E.B. Patna	62.14 %	2004

EXPERIENCE:

- Currently working as **Assistant Professor** in Department of Biotechnology at **IMS Engineering College, Ghaziabad**. (**From Oct 2013**).

- **Assistant editor** of technical research journal of IMSEC, Ghaziabad "**Vivechan, International Journal of Research (VIJR)**". (**Dec 2013 to Dec 2015).**

- Worked on a **live project** funded by **DBT, Govt. of India,** aiming to develop "**Metabolomics Laboratory Information Management System (LIMS)**" under the project entitled "**Computational Core for Plant Metabolomics**" at IIIT-Hyderabad and JNU Delhi**. (May 2012- May 2013)**

- **Teaching Assistant** for the course "**Scripting and Computer Environment**" (Python, Shell Scripting, HTML, MySQL, PHP) at **IIIT-Hyderabad. (Aug 2012-Dec 2012)**

AREA OF INTEREST:

- Drug Designing, Genomic Sequence Analysis, Metabolomics

PROJECTS UNDERTAKEN:

Project Guided:

1. **Docking study of estrogen receptor alpha (ERa) protein to find its binding energy with potent inhibitors similar to breast cancer drugs**

2. **Quantitative Structure-Activity Relationship (QSAR) modeling for the analysis of Estrogen Receptor Beta modulators**

3. **Sequence Homology and SNP Detection in Abiotic Stress Responsive Genes in Rice.**

4. **Study of the implications of copy number variation on Human populations: "The Causes and consequences".**

5. **Study of LC/GC-MS based plant metabolomics data processing and analysis.**

Other Projects:

B.E. Project:

- **Study of Antioxidant and Antimicrobial Properties, Phytochemical screening and analysis of Sap Extracted from Banana Pseudostem (Jan 2011 – June 2011).**
Extraction of sap from banana pseudostem, Antioxidant analysis of the sap using phosphomolybdenum reduction assay, Phytochemical analysis (Qualitative and Quantitative) of the sap, Antimicrobial (Antifungal and Antibacterial) analysis of the sap by disc diffusion and well diffusion method.

M.Tech. Projects:

- **DBT, Govt. of India funded Project** entitled "**Computational Core for Plant Metabolomics**" at IIIT-Hyderabad and JNU Delhi.

  o **Identification and validation of Metadata, GC/LC-MS data Preprocessing and analysis methods for Plant metabolomics LIMS development. (May 2012 – July 2012)**
  Based on "Metabolomics Standard Initiative" (MSI) standard, Identification of minimum parameters to be reported in order to define details of experimental study designs in plant metabolomics studies. Further, study of GC/LC-MS data preprocessing and analysis methods specifically for plant metabolomics.

  o **Computational methods and algorithms for plant metabolomics data analysis:** *Normalization* **(Aug 2012 – Dec 2012)**
  Study of algorithms involved in different normalization methods for metabolomics data. Identification and validation of open source/web-based/commercial tools and R-packages available for data normalization.

  o **Identification and validation of NMR-based metabolomics 1D data pre-processing methods and softwares/R-packages (Jan 2013 – Feb 2013)**
  Identification and validation of methods, softwares and R-Packages available for NMR Data preprocessing.

  o **Identification and validation of softwares/R-package for multi-dimensional NMR data processing and bio-profiling. (March 2013 – May 2013)**
  Identification of steps, general pipeline and R-Package for multi-dimensional NMR data preprocessing and analysis. Open source plant metabolite libraries for NMR. Identification of the best tool/R-package and incorporation of individual steps in LIMS portal.

- **Mini Projects**
  o **Personal home page project on PHP and MySQL.**
  Development of personal home page along with the facility of user login, file upload/download and user specific contact library.
  o Development of **Home page for the DBT, Govt. of India funded Project** entitled "Computational Core for Plant Metabolomics".
  o Created a **Literature portal** for CCNSB, IIIT-Hyderabad and a **Wiki portal** for "Computational Core for Plant Metabolomics" project.

DISSERTATION & SEMINARS:

Insilico Drug Design, Adsorption Chromatography, Spirulina production, Biosteel, BT Food and its impact.

ACHIEVEMENTS:

- **GATE 2011** & **2015 qualified.**
- Got **2nd prize** in Regional level State wide **BIO QUIZ,** conducted by Department of IT- BT, Karnataka government.

TECHNICAL SKILLS:

Bioinformatics	GC/LC-MS & NMR Data processing, Biological data mining, Pymol, Rasmol, EMBOSS, BLAST, ClustalW, Autodock, ANN based tools etc.	
Biotechnology	DNA & Protein isolation, PCR, Characterization and Detection of Proteins (SDS-PAGE, Blotting, Immunodetection), Chromatography Techniques, Spectrophotometric Analysis, Gram staining, Biochemical analysis, Microbial techniques, etc.	
Computer Skills	**Language**	**Modules / Add-ons**
	Python	NumPy, SciPy, BioPython, Matplotlib, Tkinter
	C, C++	Data Structures and basics of OOPS
	R	CRMN (Normalization), NMRS, Metabonomic, ChemoSpec etc.
	Shell Scripting	
	PHP	
	Markup languages : HTML, CSS	
Database Management Systems – MySQL		
Web2py, LaTex, Microsoft Office, Open Office, **OS**: Windows and LINUX		

PERSONAL SKILLS:

- Adaptability to the nature of the work.
- Ability and readiness to work hard.
- A bility to deal with people diplomatically.
- Perseverance to accomplish a task.
- Effective Communication Skills**.**

EXTRA CURRICULAR:

- Was part of organizing committee for **National seminar** on **Managing Innovation through IPR in Knowledge Era** at IMS Engineering College, Ghaziabad.
- Was part of organizing committee for **National seminar** on **Herbal Research** at

IMS Engineering College, Ghaziabad.

- Was part of organizing committee for **1st Workshop on Computational Core for Plant metabolomics** at IIIT Hyderabad.

- Was part of organizing committee for National level Conference on **Airobiology** conducted by Bapuji Educational Association, Davangere.

- Was an active participant for organizing Freshers, Farewell and college fests.

- Presented a poster on **The Future Aspects of Nanotechnology** in ORTUS event conducted by B.V.B. Institute of technology Hubli.

- Presented an Idea on **Production and Application of BIOSTEEL** in BIOSATUM event conducted by B.I.E.T. Davangere.

- Attended a national microbiology CME & Workshop on **Role of Real Time PCR in Diagnosis of Infectious Diseases,** conducted by S.S. Institute of Medical Science and Research Centre, Davangere.

- Attended a National level conference on **Application of Nanotechnology in Medicine** conducted by Bapuji Educational Association, Davangere.

- Attended a workshop on **Clinical Research & Pharmacovigilance,** at S.S. Institute of Medical Science and Research Centre, Davangere

- Attended a Seminar on **Recent Trends in Nanotechnology,** conducted by B.I.E.T. Davangere.

- Attended 1st and 2nd annual symposium on **Current Trends in Computational Natural Sciences**, organized by CCNSB, IIIT-Hyderabad.

PERSONAL PROFILE:

Name	:	Priya Ranjan Kumar
Father's Name	:	Mr. Ramchandra Prasad
Sex	:	Male
Date of Birth	:	16-08-1989
Marital Status	:	Married
Nationality	:	Indian
Language Known	:	English, Hindi
Permanent Address	:	Vill.- Belokhara
		Po.- Thumha
		Dist.- Supaul (Bihar)
Place of Birth	:	Gopalganj, Bihar
Hobbies	:	Playing and watching Cricket, Listening music,

Traveling, Cooking, Reading Novels.

DECLARATION:

I, hereby declare that all the data furnished above are true to the best of my knowledge.

Date: April 30, 2016
Place: Ghaziabad (U.P.)   **Priya Ranjan Kumar**