


### Profile of the Faculty Member

1.	Name of the Faculty member	Mohammad Sufian Badar	
2.	Designation	Assistant Professor	
3.	Qualifications	PhD	
4.	State of Domicile	Bihar	
5.	Department & School	Computer Science and Engineering, School of Engineering Sciences and Technology	
6.	Details of Courses taught		
7.	Research Thrust Areas	Artificial Intelligence and Machine Learning, Drug Design, Structural Bioinformatics	
8.	Emails	msbadar@jamiahamdard.ac.in sufianbadar@gmail.com	
<b>PUBLICATIONS</b>			
9.	Publications in peer reviewed National & International journals, Citations, H-index	<p>For Publications Profile view at:  <a href="https://scholar.google.com/citations?user=XKJDIbgAAAAJ&amp;hl=en">https://scholar.google.com/citations?user=XKJDIbgAAAAJ&amp;hl=en</a></p> <p>Google Scholar:  <a href="https://scholar.google.com/citations?user=XKJDIbgAAAAJ&amp;hl=en">https://scholar.google.com/citations?user=XKJDIbgAAAAJ&amp;hl=en</a></p> <p>Scopus Author ID:</p> <p>ORCID:  <a href="https://orcid.org/0000-0003-2390-2667">https://orcid.org/0000-0003-2390-2667</a>            Give LINKS</p>	
<b>BOOKS &amp; BOOK CHAPTERS PUBLISHED</b>			
10.	Number of books published by National publisher		

11.	Number of books published by international publisher	1. A Guide to Applied Machine Learning for Biologists, Springer Nature, USA 2. Diagnosis and Analysis of Covid-19 Using Artificial Intelligence and Machine Learning-Based Techniques, Elsevier  <b>1.</b>
12.	Number of Book Chapters in Edited books of National Publishers	
13.	Number of Book Chapters in Edited books of International Publishers	10 Book Chapters
<b>RESEARCH GRANTS AND CONSULTANCY PROJECTS</b>		
14.	Number of research grants from govt. funding agencies as PI/Coordinator	
15.	Number of research grants from govt. funding agencies as Co-PI	
16.	Number of research grants from International and private sources as PI	
17.	Number of consultancy projects	
<b>RESEARCH SUPERVISION</b>		
<b>As Supervisor</b>		
18.	Number of Ph.D. Guided	
19.	Number of Master's theses/dissertations Guided	4
<b>As Co-supervisor</b>		
20.	Number of Ph.D. Guided	
21.	Number of Master's theses/dissertations Guided	4
<b>PATENTS</b>		

22.	Number of Patents Granted	
23.	Number of Patents Applied for	
<b>PRESENTATIONS IN CONFERENCES AS SPEAKER/ RESOURCE PERSON</b>		
24.	Number of presentations in National or International Conferences in India	5
25.	Number of presentations in International Conferences abroad	4
<b>NATIONAL AWARDS, HONOURS AND FELLOWSHIPS RECEIVED</b>		
26.		
<b>INTERNATIONAL AWARDS, HONOURS AND FELLOWSHIPS RECEIVED</b> Graduate Research Assistant, Louisiana Tech University, Ruston, LA, USA		
27.		
<b>STAFF DEVELOPMENT/REFRESHER/SHORT TERM TRAINING PROGRAMME/WEBINARS ORGANIZED</b>		
28.		
<b>MEMBER(S) OF NATIONAL COMMITTEES</b>		
29.		
<b>MEMBER(S) OF INTERNATIONAL COMMITTEES</b>		
30.		
<b>ADMINISTRATIVE RESPONSIBILITIES/ PARTICIPATION IN COMMITTEES OF JAMIA HAMDARD</b>		
31.		
<b>ANY OTHER</b>		
32.	Ongoing research:	

**Research Ongoing: (Area of Interest: Artificial Intelligence/Machine Learning)**

**1. Prediction and Prognosis of Breast Cancer by Machine Learning**

We are designing a model using an algorithm developed using Machine Learning. Our research proposes a model developed by different techniques of machine learning. It is a hybrid model of ensemble learning which combines the predictions of multiple models, leading to an improvement in the performance of the models. Ensemble learning uses multiple machine learning methods to make better predictions on a dataset. The predictions of these models are then combined in the ensemble model to make a final prediction.

**2. Predicting and Diagnosing COVID-19 Symptoms through Machine Learning**

We are currently developing a model that can predict whether a person is infected with Covid-19 based on symptoms only. We are training a decision tree family of classifiers using major and minor symptoms, such as fever, headache, sore throat, etc.

**3. Estimation of macro human emotions using non-invasive Bio-sensors.** We are developing a device embedded with biosensors like ECG, Oximeter, GSR, Body Temp, and Gyroscope. These sensors will periodically gather data non-invasively from a subject, along with feedback on their current emotion. This data will be further used to study the correlation between variations of these measurements and the provided emotional state at a point in time.

