



## University Faculty Details Page on DU Web-site

Title	Prof.	First Name	Subhendu	Last Name	Ghosh	Photograph
Designation		<b>Professor &amp; Head</b>				
Department		<b>Biophysics</b>				
Address (Campus)		<b>Department of Biophysics, Biotech Bldg (3<sup>rd</sup> Floor), University of Delhi South Campus, Benito Juarez Road, New Delhi 110021. New Delhi 110021</b>				
	(Residence)	<b>Flat # 3, Type V, Block I, University of Delhi South Campus, Benito Juarez Road, New Delhi 110021.</b>				
Phone No (Campus)		<b>91-11-24157279</b>				
	(Residence) optional					
Mobile		<b>91 9968018654</b>				
Email		<b><a href="mailto:profsubhendu@gmail.com">profsubhendu@gmail.com</a>; <a href="mailto:subho@south.du.ac.in">subho@south.du.ac.in</a></b>				
Web-Page		<b><a href="https://sites.google.com/view/profsubhendughosh">https://sites.google.com/view/profsubhendughosh</a></b>				
<b>Education</b>						
Subject		Institution		Year		Details
Ph.D.		Jawaharlal Nehru University, New Delhi		1984		Thesis topic: Mathematical Modeling of Ligand DNA Interaction
M.Phil.		Jawaharlal Nehru University, New Delhi		1980		Subject: Biophysics
M.Sc.		Jawaharlal Nehru University, New Delhi		1978		Subject: Physics
B.Sc.		Presidency College (Calcutta University)		1975		Chemistry, Physics, Mathematics
<b>Career Profile</b>						
Organisation / Institution		Designation		Duration		Role
Jawaharlal Nehru University, New Delhi		Research Officer		1985-86		Teaching & Research
University of Delhi South Campus		Research Associate		1986-1988		Teaching & Research
University of Delhi South Campus		Assistant Professor		1988-1998		Teaching & Research
Northwestern University Medical School, Chicago, USA		Visiting Scientist		1992		Research
University of Delhi South Campus		Associate Professor		1998-2005		Teaching & Research
University of Chicago Medical School, USA		Visiting Scientist		1998		Research
University of Hyderabad		Professor		2005-2007		Teaching & Research
University of Delhi South Campus		Professor		2006 onward		Teaching & Research
Max Planck Institute for Physics of Complex Systems, Dresden, Germany		Guest Scientist		2010-2011		Research
Technical University of Dresden, Germany		Visiting Research Scientist		2013, 2014, 2015, 2016, 2017, 2019		Research
<b>Research Interests / Specialization</b>						
<b>Membrane Biophysics, Ion Channels, Neuro-Biophysics, Cognitive Neuroscience, Theoretical &amp; Mathematical Biology</b>						
<b>Teaching Experience ( Subjects/Courses Taught)</b>						
34 years. Physical Methods in Biology, Molecular Biophysics, Biomathematics, Membrane Biology, Ion Channels & Electrophysiology, Bioenergetics, Information Processing & the Brain.						

Honors & Awards: (i) Member, Special Committee for Fundamental Research, CCRH, Ministry of AYUSH, Govt. of India. (ii) Member of Selection Committee of Several Boards/ Institutes/ Universities.

**Publications (LAST FIVE YEARS)**

**Books / Monographs**

<u>Year of Publication</u>	<u>TitleC</u>	<u>Publisher</u>
1.	Subhendu Ghosh. <i>Collective Behavior: From Cells to Society</i> . 2019 (to be published) <i>CRC Press, USA</i> .	
2.	Subhendu Ghosh. <i>Biophysical Chemistry</i> . In: Textbook of Biotechnology, Ed. H.K. Das, Wiley, 5 <sup>th</sup> Edition (2017) pp131-148.	
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**In Indexed/ Peer Reviewed Journals (selected from last Five Years)**

<u>Year of Publication</u>	<u>Title</u>	<u>Journal</u>	<u>Co-Author</u>
1.	Malik, C. & Ghosh, S. (2020). <i>Quinidine Partially Blocks Mitochondrial Voltage-Dependent Anion Channel (VDAC)</i> . <b>Eur. Biophys. J.</b> <b>49</b> , 193-205.		
2.	Talukdar, S., Shrivastava, R. & Ghosh, S. (2019). <i>Modeling Activity Dependent Reduction in After hyper-polarization with Hodgkin Huxley Equation of Action Potential</i> . <b>Biomed. Phys. Eng. Express</b> <b>5</b> , 047001.		
3.	Dey, D., Siddiqui, Shumaila I, Ghosh, S., Mamidi, P., Kumar, C.S., Chattopadhyay, S., Subhendu Ghosh & Manidipa Banerjee (2019) <i>The effect of amantadine on a ion channel protein from Chikungunya virus</i> . <b>PLoS Neglected Disease</b> <b>13</b> (7), e0007548, 1-22.		
4.	Gupta, R., & Ghosh, S. (2017). <i>Phosphorylation of purified mitochondrial Voltage-Dependent Anion Channel by c-Jun N-terminal Kinase-3 modifies channel Voltage-Dependence</i> . <b>Biochimie Open</b> <b>4</b> , 78-87.		
5.	Gupta, R., & Ghosh, S. (2017). <i>Putative roles of mitochondrial Voltage-Dependent Anion Channel, Bcl-2 family proteins and c-Jun N-terminal Kinases in ischemic stroke associated apoptosis</i> . <b>Biochimie Open</b> <b>4</b> , 47-55.		
6.	Gupta, R., & Ghosh, S. (2017). <i>JNK3 phosphorylates Bax protein and induces ability to form pore on bilayer lipid membrane</i> . <b>Biochimie Open</b> , <b>4</b> , 41-46.		
7.	Shrivastava, R., Malik, C. & Ghosh, S. (2016) <i>Open channel current noise analysis of S6 peptides from KvAP channel on bilayer lipid membrane shows bimodal power law scaling</i> . <b>Physica A</b> , <b>451</b> , 533-540.		
8.	Gupta, R. & Ghosh, S. (2015) <i>Bax and Bif-1 proteins interact on Bilayer Lipid Membrane and form pore</i> . <b>Biochem. Biophys. Research Comm.</b> <b>463</b> ,751-755.		
9.	Gupta, R. & Ghosh, S. (2015) <i>Phosphorylation of Voltage-Dependent Anion Channel by c-Jun N-terminal Kinase-3 leads to Closure of the Channel</i> . <b>Biochem. Biophys. Research Comm.</b> <b>459</b> ,100-106.		
10.	Bhattacharjee, A., Das, M.K. & Ghosh, S. (2014) <i>Synchronization in a Ring of Unidirectionally Coupled FN Neurons</i> . <b>Int. J. Biomaths.</b> <b>7</b> (1), 1450009.		
	a. For details pl. visit <a href="https://sites.google.com/view/profsubhendughosh">https://sites.google.com/view/profsubhendughosh</a>		

**Articles**

1. Talukdar, S. & Ghosh, S. (2015) *How Repeated Listening helps Learning a Musical Pattern?* Proceedings of the International Symposium: Frontiers of Research on Speech & Music, IIT Kharagpur, pp86-89.
2. Ghosh, S. (2013) *Socio-Cultural basis of Brain Activities during Perception and Cognition of Music*. Ed. S. Bandopadhyay, Proceedings "International Seminar on Creating & Teaching Music Patterns", Kolkata.

**Conference Presentations (selected, Last Five Years)**

1. **Gordon Research Conference on Molecular & Ionic Clusters**, Ventura, CA, USA, 26-30 January, 2020.
2. Summer Soltice 2019: Conference on Discrete Models of Complex Systems, **Max Planck Institute of Physics of Complex Systems, Dresden, Germany**, 15-17 July, 2019.
3. Workshop on Musical Pattern Formation in East & West, **Technical University of Dresden, Germany**, 11<sup>th</sup> July, 2019.
4. National Symposium on Applied Spectroscopy, **U.P. College, Varanasi**, 19-20 February, 2019.
5. Recent Advancements in Neurophysiology and Neuropharmacology-2018RANN 2018, **GLA University, Mathura**, 2-3 November, 2018.
6. Delivered invited talks at the **Technical University of Dresden, Germany**, 2<sup>nd</sup> & 3<sup>rd</sup> November, 2016.

<ol style="list-style-type: none"> <li>7. Delivered invited talks &amp; chaired sessions at the <b>International Symposium: Frontiers of Research on Speech &amp; Music, Allenhouse Institute of Technology, Kanpur</b>, 6-7 July, 2019, <b>NIT Rourkela</b>, 15-16 December, 2017, <b>IIT Kharagpur</b>, 23-24 November, 2015, <b>AIISH, Mysore</b>, 13-14 March, 2014, <b>Jadavpur University</b>, 5-7 March, 2013.</li> <li>8. Delivered invited talks at the <b>Workshop on Differential Equations &amp; Mathematical Modeling</b> (INSA sponsored), <b>Delhi University</b>, (a) 11-13 October, 2018, (b) 27-29 September, 2017.</li> <li>9. Delivered invited talks at the <b>Workshop on Mathematical Biology, University of Delhi South Campus</b>, 23<sup>rd</sup> April, 2018.</li> <li>10. Chaired sessions at the <b>International Meet on Advanced Studies in Cell Signaling Network. IICB, Kolkata</b>, 2016, 2014, 2012.</li> <li>11. Delivered invited talk at symposium on <b>Innovations in Product Design</b> at <b>IITDM, Jabalpur</b> from 11-13 May, 2015.</li> <li>12. Delivered invited talk at the symposium <b>Recent Trends in Mathematical Biology, JNU</b>, 16<sup>th</sup> April, 2015.</li> <li>13. Delivered invited talk at a Refresher Course in Physics at <b>Deptt. of Physics, DU</b>, 17<sup>th</sup> October, 2016.</li> <li>14. Delivered invited talk at a Refresher Course in Basic Sciences at <b>Jamia Milia Islamia</b>, 6<sup>th</sup> May, 2015.</li> <li>15. Delivered invited talk at <b>University of Heidelberg, Deptt. of Physical Chemistry</b>, 26<sup>th</sup> June, 2014.</li> <li>16. Delivered invited talks at several Universities &amp; Institutes in India.</li> </ol>
<b>Total Publication Profile</b> optional
<u>Books/ Chapters</u> 5
<u>In Indexed/ Peer Reviewed Journals</u> 44
<u>Articles</u> 12
<u>Conference Presentations</u> 118
<b>Public Service / University Service / Consulting Activity</b>
<b>Acted as the Head of the Department of Biophysics from 2002-2005. Presently acting as the Head of the Department of Biophysics since April, 2017.</b>
<b>Professional Societies Memberships</b>
<ul style="list-style-type: none"> <li>○ <b>Indian Biophysical Society (life member)</b></li> </ul>
<b>Projects (Major Grants / Collaborations)</b>
<ol style="list-style-type: none"> <li>I. <i>DNA Conformation, Dynamics and Radiation Damage</i> funded by DST under Young Scientists' Scheme during 1985-86.</li> <li>II. <i>Gating of Protein Channels in Biomembranes</i> (CSIR, Govt. of India funded).</li> <li>III. <i>Mitochondrial Porin: Studies on its Regulation</i> (CSIR, Govt. of India funded).</li> <li>IV. <i>Gating Kinetics of Passive Diffusion Channels: A Dynamic Approach</i> (CSIR, Govt. of India funded).</li> <li>V. <i>Investigating Collective Behavior of Passive Diffusion Channels</i> (DST funded).</li> <li>VI. <i>Role of Voltage Dependent Anion Channel in Mitochondria Mediated Apoptosis: Studies on Interaction with MAP kinase and Bax</i> (BRNS, BARC, DAE funded).</li> <li>VII. R &amp; D projects of University of Delhi during 2008-9, 2009-10, 2010-11, 2012-13, 2013-14, 2014-15, 15-16.</li> <li>VIII. <i>Structure-Function studies on a membrane protein from Chikungunya Virus</i> (DBT funded).</li> </ol>
<b>Other Details</b>
Research collaborations with Institute of Molecular Physiology & Genetics, Bratislava (Slovakia), IIT Delhi, IIT Bombay, IIT Madras, IIT

