

## **BRIEF**

# CONTACT

**DEPARTMENT: Mathematics** 

SCHOOL OF STUDIES: School of Sciences

DATE OF JOINING: 21.09.2006

ADDRESS: DD -26, Salt Lake city, Sector I, Kolkata- 700064.

PHONE: +91 4066 3217

WEBSITE: www.nsou.ac.in

EMAIL: director.sosc@wbnsou.ac.in

# DR. KAJAL DE

Professor of Mathematics & Director, School of Sciences

# **ACADEMIC QUALIFICATION**

M.Sc., M.Phil., Ph.D.

## **TEACHING EXPERIENCE**

**Netaji Subhas Open University, Professor of Mathematics** [21.09.2006 – till date]

Vidyasagar University, Lecturer /Reader of Mathematics [25.05.1992 – 20.09.2006]

## **AWARD AND FELLOWSHIP**

UGC-JRF in 1992

### **RESEARCH INTERESTS & EXPERIENCE**

Working almost 30 years on Information Theory, Operations Research, Graph Theory & Open Distance Learning.

#### **ADMINISTRATIVE EXPERIENCE**

- 1. **HEAD OF THE DEPARTMENT** OF APPLIED MATHEMATICS, VIDYASAGAR UNIVERSITY, MIDNAPORE, WEST BENGAL DURING DEC, 2005 TO SEPT., 2006.
- 2. **CHAIRPERSON** OF I) UG BOARD OF STUDIES IN MATHEMATICS
  - II) PG BOARD OF STUDIES IN MATHEMATICS
- III) SUBJECT COMMITTEE OF MATHEMATICS IN DISTANCE EDUCATION AT VIDYASAGAR UNIVERSITY, MIDNAPORE, WEST BENGAL.
- 3. **DIRECTOR, SCHOOL OF SCIENCES** OF NETAJI SUBHAS OPEN UNIVERSITY FROM AUGUST, 2008 TO AUGUST, 2011 AND AGAIN FROM 01.07.2013 TILL DATE (FIFTH 3 YEARS' TERM RUNNING).
- 4. **REGISTRAR** (ACTING) OF *NETAJI SUBHAS OPEN UNIVERSITY* FROM JUNE, 2010 TO OCTOBER, 2010.

- 5. MEMBER OF THE **EXECUTIVE COUNCIL** OF *NETAJI SUBHAS OPEN UNIVERSITY* SINCE AUGUST, 2008 TILL DATE.
- 6. MEMBER OF **ACADEMIC COUNCIL** OF NETAJI SUBHAS OPEN UNIVERSITY SINCE 2007 TILL DATE.
- 7. DRAFTED THE FIRST STATUTE (REVISED) OF NETAJI SUBHAS OPEN UNIVERSITY IN 2013-14 AS THE CONVENER, STATUTE REVIEW COMMITTEE.
- 8. DRAFTED PH.D. REGULATIONS OF NSOU AS **CONVENOR**, **PH.D. RULE COMMITTEE** IN 2013.
- 9. MEMBER OF THE **RESEARCH ADVISORY COMMITTEE**, **NSOU** FROM 2009 TILL DATE.
- 10. **DIRECTOR, IQAC**, *NSOU* DURING 2014-2017 AND MEMBER OF **CIQA**, *NSOU* SINCE 2017 TILL DATE.
- 11. **CHAIRPERSON**, WOMEN HARASSMENT PREVENTION CELL, *NSOU* DURING 2011-2015 AND **PRESIDING OFFICER**, INTERNAL COMPLAINTS COMMITTEE, *NSOU* IN 2016.
- 12. **HEAD OF THE DEPARTMENT** OF MATHEMATICS, NETAJI SUBHAS OPEN UNIVERSITY, KOLKATA, WEST BENGAL SINCE SEP, 2019 TILL DATE.
- 12. **CHAIRPERSON** OF I) UG BOARD OF STUDIES IN MATHEMATICS, PHYSICS, CHEMISTRY, GEOGRAPHY, BOTANY & ZOOLOGY
- II) PG BOARD OF STUDIES OF MATHEMATICS, GEOGRAPHY, ZOOLOGY & ENVIRONMENTAL SCIENCE AT NSOU 13. MEMBER OF DIFFERENT **SELECTION BOARD** AND SCREENING COMMITTEE FOR APPOINTMENT OF TEACHERS AT NSOU.
- 14. ACTED AS **PAPER SETTER / EXAMINER** IN SSC-WB, WBCS, SSC ODISHA, & WBJEE EXAMINATIONS.
- 15. PERFORMED DIFFERENT ACADEMIC AND EXAMINATION RELATED WORKS AT DIFFERENT INSTITUTES LIKE NAAC, NCERT, JADAVPUR UNIVERSITY, KALYANI UNIVERSITY, BURDWAN UNIVERSITY, VIDYASAGAR UNIVERSITY, GOUR BANGA UNIVERSITY, ST. XAVIERS' COLLEGE ETC.

# **UG & PG TEACHING ASSIGNMENTS**

- 1. POST GRADUATE MATHEMATICS
- 2. UNDER GRADUATE MATHEMATICS
- 3. COURSE WORK OF PH.D. IN MATHEMATICS

# NO. OF CANDIDATE AWARDED/ REGISTERED FOR PH.D

3 (THREE) AWARDED + 6 (SIX) REGISTERED

#### MEMBERSHIP OF DIFFERENT COMMITTEES OF NSOU

- 1. Executive Council of NSOU
- 2. Academic Council of NSOU
- 3. Research Advisory Committee of NSOU
- 4. Admission Committee of NSOU
- 5. CIQA, NSOU
- 6. UG Boards of Studies Mathematics, Physics, Chemistry, Botany, Geography & Zoology
- 7. PG Boards of Studies- Mathematics, Geography, Zoology & Environmental Science
- 8. Departmental Research Committee- Mathematics, Geography, Physics, Chemistry, Zoology & Computer Science
- 9. Building Committee of NSOU
- 10. Purchase & Tender Committee
- 11. Library Committee
- 12. School Council of School of Sciences

#### MEMBERSHIP OF PROFESSIONAL BODIES

CALCUTTA MATHEMATICAL SOCIETY (VICE PRESIDENT)

#### **ELIGIBILITY TEST CLEARED (NET/SET/GATE etc.):**

SI. No.	Details
1	NET in Mathematics in June 1991

# **RESEARCH PROJECTS:**

SI.	Name of the Project	Funding Agency	Period	Grant Mobilized	Outcome
No.					
1	Inaccessibility of Study	UGC-DEB	2019	Rs. 5,00,000/-	Research
	Centres: Challenges faced by				Papers, Book
	Distance Education in building				chapter
	Educated Societies				
2	Teaching of Science in Open	UGC-DEB	2015	Rs. 4,50,000/-	Research
	and Distance Learning (ODL)				papers
	mode: Emerging Pedagogy				
3	Entropy Optimization with	UGC	2005	Rs. 15,000/-	Project Report
	some Applications				

#### **E-CONTENT**

SI. No.	Details	Quadrant I/II/III/IV	Link
1	PGMT VIIIB SoSci AVL-63 2017	1	https://www.youtube.com/embed/ns5IX4ZMUj4

2	PGMT VIIIB SoSci AVL-64 2017	1	https://www.youtube.com/embed/oUJkz8THP8c
3	PGMT VIIIB SoSci AVL-65 2017		https://www.youtube.com/embed/On3aC7hN8mU
4	PGMT VIIIB SoSci AVL-66 2017		https://www.youtube.com/embed/QKySP_jqPrM
5	PGMT VIIIB SoSci AVL-67 2017	1	https://www.youtube.com/embed/Srzv5KwqU88
6	PGMT VIIIB SoSci AVL-68 2017	1	https://www.youtube.com/embed/MR4NaNv7-pM

# DETAILS OF PUBLICATIONS (BOOKS/ EDITED VOLUME / RESEARCH PAPERS/REVIEW): [Last 10 Year]

SI. No.	Title of the paper vol. No., Issue No., Page No., Year	Publisher	Year of publication	ISSN/ ISBN
1.	On Almost *-RICCI Soliton', Vol.13, Issue 2, pg 33-41	Gulf Journal of Mathematics	2022	2309-4966
2.	Fuzzy chordal graphs and its properties, 7(2), 1-12	International Journal of Applied and Computational Mathematics	2021	
3.	Fuzzy mixed graphs and its application to identification of COVID 19 affected central regions of India, 40 (1), 1051-1064	Journal of Intelligent & Fuzzy Systems	2021	1064-1246
4.	Implication of Innovative Ideas for Academic Counselling: A Case Study, Pg. 117-124	National Centre for Innovation in Distance Education, IGNOU	2021	978-93-5568-097-6
5.	Complete neighbourhood centrality and its application	4th International Conference on Computational Intelligence and Networks, ISI Kolkata, IEEE	2020	
6.	A Study on Discrete Mathematics: Sum Distance in Neutrosophic Graphs with Application, Vol. 35, Pg 220-231	Neutrosophic sets and Systems, (SCOPUS) University of New Mexico	2020	
7.	Generalized Neutrosophic Competition Graphs, Vol. 31, Pg 156-171	Neutrosophic sets and Systems, (SCOPUS) University of New Mexico	2020	
8.	Mitigation of 'Inaccessibility' in Open and Distance Learning (ODL) Systems: A Fuzzy Graph Approach, pp 61-74	Netaji Subhas Open University	2018	978-93-82112-66-2
9.	Distance Education and its Obscurities: Addressing the Inaccessibility Conundrum in Mathematics and Other Disciplines	Netaji Subhas Open University	2018	978-93-82112-66-2
10	An Introspection of the Responses of the Ruralites and the Elderly to Information and Communication Technology in Open Distance Learning, pg: 227-242	Springer Nature Singapore	2018	978-981-13-2990-0 978-981-13-2300-3 (eBook)
11	Empowering the Elderly Indians through Open Distance Learning, Conference Proceedings of the International Conference on Developmental Interventions and Open Learning for Empowering and Transforming Societies	K.K Handiqui State Open University	2017	978-81-934669-0-2
12	Interrogation, (Volume – II)	Netaji Subhas Open University	2016	978-93-82112-25-9
13	Identity and Deception in the realm of Cyber Space: Crime against Women, pp 259-286	Netaji Subhas Open University	2015	978-93-82112-24-2

14.	Open and Distance Learning for	International Journal of	2015	2348-537X (ISI
	Empowering Women through Science	Multidisciplinary Approach and		Impact Factor
	Teaching: The Performance and Promise of	Studies		2014: 2.593)
	Open and Distance Education in West			
	Bengal, India, Vol.2, No.4, pp 134-142,			
	July-August			
15.	Women, Violence and Law: An Intimate	Netaji Subhas Open University	2015	978-93-82112-24-2
	Interrogation', (Volume –I)			
16.	Gender Sensitization, Women	Netaji Subhas Open University	2014	978-93-82112-12-9
	Empowerment and Distance Education:			
	History, Society, Culture			

# PAPERS PRESENTED AT SEMINARS, CONFERENCES, WORKSHOPS, ETC.: [Last 10 Year]

SI. No.	Title of Paper/ Lecture	Organizing Institute	Conference, Seminar, workshop etc	Role (Paper presenter/ invited talk/ chairperson)	International (Within Country)/ International (Abroad)/National
1.	Valedictory Session (Online)	Calcutta Mathematical Society	CIMPA-CMS Research School 2022: Groups and Geometry, 2022	Chairperson	International
2.	Technical session (N.R.Sen Memorial Lecture)	Calcutta Mathematical Society,	International Conference on 'Recent Developments in Mathematics and Mathematical Sciences (ICRDMMS 2021)	Chairperson	International
3.	Complete Neighbourhood Centrality and its Application	Indian Statistical Institute, Kolkata & KIIT, Bhubaneswar	4 <sup>th</sup> International Conference on 'Computational Intelligence and Networks (CINE 2020)	Paper presenter	International
4.	Talk on Basics of Mathematics Learning	Naihati Narendra Vidya Niketan, 24 pgs (N) & Calcutta Mathematical Society	State Level Mathematics Workshop, 2019	Invited talk	State
5.	Technical session	Calcutta Mathematical Society	National Conference on 'Mathematical Analysis and Mathematical Modelling', 2018	Chairperson	National
6.	Mitigation of 'Inaccessibility' in Open and Distance Learning (ODL) Systems: A Fuzzy Graph Approach	Netaji Subhas Open University	One Day National Conference titled 'Distance Education and its Obscurities: Addressing the "Inaccessibility" Conundrum in Mathematics and other Disciplines, 2018	Paper presenter	National

7.	Technical Session	Netaji Subhas Open University	3-Day In-Service Training and Sensitization	Chairperson	State
			Programme, 2018		
8.	Technical Session	Calcutta Mathematical Society,	International Conference on 'Geometry and Mathematical Models in complex Phenomena', 2017	Chairperson	International
9.	Lecture on Abstract Algebra	Muragachha Govt. College, Nadia	Two Days National Seminar-cum- Workshop on 'Recent Advances in Mathematics and Mathematical Sciences: Its Teaching and Learning', 2017	Invited Talk	State
10	Content cum Pedagogy Enrichment in Mathematics	Regional Institute of Education, Bhubaneswar, NCERT	'Content cum Pedagogy Enrichment Programme for Master Trainers in Mathematics at Higher Secondary Stage in West Bengal', 2015	Resource Person	National
11	Fuzzy Graphs as a Network in Open and Distance Learning Systems	Gauhati University	National Seminar on Advances in Mathematical Sciences (NSAMS- 2015	Paper Presenter	National
12	Learners in Science Subjects for Post Graduate Degree: A Brief Comparative Analysis	Tamil Nadu Open University	XX IDEA Annual Conference 2015 on 'Empowering India through Open and Distance Learning: Breaking down Barriers, Building Partnership and Delivering Opportunities	Paper presenter	National
13	Identity and Deception in the realm of Cyber Space: Crime against Women	Netaji Subhas Open University	National Seminar on Women, Violence and Law: An Intimate Interrogation – Open Distance Paradigm, 2014	Paper presenter	National
14	Approach of Teaching- Learning Process in Mathematical and Biological Science Teaching in Distance Education: A Case Study	University of Jammu	19 <sup>th</sup> IDEA Conference, Directorate of Distance Education, 2014	Paper Presenter	National

# PROGRAMMES COORDINATED/ ORGANISED AS CONVENER / ORGANISING SECRETARY AT NETAJI SUBHAS OPEN UNIVERSITY: [Last 5 Year]

SI. No.	Programme Name	Sponsored by	Period
1.	National seminar on 'Only One Earth: Our One Environment' (Chairperson)	NSOU	June, 2022
2.	International Webinar on 'Recent Trends in Mathematical Sciences (with Special Emphasis on Mathematical Physics and Number Theory)' (IWRTMS-2022)- (Convener)	Calcutta Mathemati cal Society	February, 2022
3.	7th Srinivasa Ramanujan Memorial Lecture (Chairperson)	NSOU	Nov, 2021
4.	One Day Webinar on 'Advance Level Study on Chemical Sciences (Chairperson)	NSOU	Oct, 2020
5.	NSOU Online Special Lecture Series in Mathematics-2020 (OSLSM-2020) –(Chairperson)	NSOU	June- December, 2020
6.	Special Lecture Series in Life Sciences (SLS-LSc) (Chairperson)	NSOU	Sept-Oct, 2020
7.	Workshop On Preparation of Self Learning Materials of UG Mathematics under CBCS at NSOU' (Chairperson)	NSOU	April, 2019
8.	`		July, 2018
9.	National Seminar on "Environmental Management with the Application of GIS and Geoinformatics" (Chairperson)	NSOU	September, 2017
10	Brain-Storming Session on "The proposed new UG syllabus by UGC & WBSCHE" (Convener)	NSOU	March, 2017
11	Workshop on 'Proficiency Improvement of Laboratory Counselling: An ODL Initiative' (Chairperson)	NSOU	September, 2016
12	National Workshop on 'Skill Development in Science Subjects through ODL Mode: Advancement in Pedagogy'. (Chairperson)	NSOU	October, 2015
13	6 <sup>th</sup> Srinivasa Ramanujan Memorial Lecture (Chairperson)	NSOU	February, 2015

# **RESEARCH GUIDANCE:**

SI. No.	Year of	University	Name of Student	Year of	Topic
	admission			Award	
1.	2022	Netaji Subhas Open University	Swadesh Halder	Admitted	Mathematics
2.	2022	Netaji Subhas Open University	Shaikh Ibrahim	Admitted	Mathematics
			Abdullah		
3.	2021	Netaji Subhas Open University	Arghyatanu Manna	Registered	Mathematics
4.	2021	Netaji Subhas Open University	Santanu Saha	Registered	Mathematics
5.	2021	Netaji Subhas Open University	Koushik Das	Registered	Mathematics
				Registered	
6.	2017	IIEST, Shibpur, Howrah	Sriparna Chowdhury	Registered	Mathematics
7.	2007	Netaji Subhas Open University	Muniraja G.	2012	Mathematics
8.	2008	Netaji Subhas Open University	Arindam Chaudhuri	2011	Computer Science
9.	2001	Vidyasagar University	Milan Kumar De	2004	Mathematics

**Declaration:** 

Signature Date

ate 01.12.2022