JSS Mahavidyapeetha



JSS Academy of Technical Education, Noida Department of chemistry



# FACULTY PROFILE

## **Department: Chemistry**

## **Personal Details**

NAME	Dr. Archana Singh	
DEPARTMENT	CHEMISTRY	
DESIGNATION	ASSISTANT PROFESSOR	123
PHONE	9265293140	
EMAIL ID	Archu.svnit@gmail.com	A CAN
Date of Joining (JSSATEN)	01-03-2025	

## Experience

			Research: -3 Years
Total Experience in Years:4.5	Teaching: 4.5	Industry: - Nil	(JRF in IIT-GN)

## Qualifications

COURSES	SPECIALIZATION		INSTITUTION	UNIVERSITY
Five Year Integrated M.Sc	Applied Chemistry	2013	Sardar Vallabhbhai National Institute of Technology Surat.	S.V.N.I.T- Surat
Ph.D	Organic Chemistry (Supramolecular Chemistry)	2020	National Institute of Technology Karnataka	N.I.T.K-Surathkal

#### **Research & Publications**

Papers Published in		
Web of Science indexed	International: 12	National: 2
Journals		
Papers Published in		
SCOPUS indexed	NIL	NIL
Journals		
Papers Published in	NIL	NIL
other Journals		INIL
Papers Presented in		
Conferences /	NIL	NIL
Symposium		
Books / Book chapters Published	NIL	

### **Research Guidance- M.Sc Guided Student**

- 1. Simple Colorimetric Receptors For Naked Eye Detection Of Biologically Important Fluoride, Acetate And Phosphate Anions In Oraganic And Aqueous Media Studied Using Spectrosopic Methods: Real Life Application (M.Sc project work, NISHITH UDDAMPADY from S. D. M. Postgraduate Centre (Autonomous), Ujire ).
- Effect of -NO2 group on sensitivity of chromogenic chemosensors for detection of biologically important anions in aqueous medium: Insight in real life application (M.Sc project work, GIRISH GOWDA R, from S. D. M. Postgraduate Centre (Autonomous), Ujire).
- 3. Design And Synthesis Of Novel Colorimetric Anion Sensors For Naked Eye Detection Of Fluoride And Acetate Anions Based On Aminophenol (M.Sc project work, SILJA TOM, from St. Agnes College, Mangalore)
- Design Synthesis & Characterisation Of A Novel Colorimetric Anion Sensor For Naked Eye Detection Of Fluoride And Acetate Anions Based On 5-Amino-2-Mercapto Benzimidazole (M.Sc thesis work, KARNA NAIR, Department Of Chemistry National Institute Of Technology Karnataka, Surathkal, Mangalore – 575025)

5. Chromogenic Selective Detection Of Sodium Floride anions In Aqueous Medium (M.Sc thesis work , Karishma Arya, Department of Chemistry Gautam Buddha University, Greater Noida).

### Grants

### **Funds Received (Projects)**

Project Name	Grant Amount	Date of receiving the Grant	Duration	Grant issuing authority/ Body / Organization
-	-	-	-	-

## Patents

Sl. No.	Title Details	Details of award of patent / Filed
1	•	-
2	-	-

## Consultancy

Title of the work	Amount in Rs.	Date of receiving the Grant	Duration	Grant issuing authority/ Body / Organization
-	-	-	-	-

## **Awards Received**

Awards	Synthetic, spectroscopic and structural chemistry (SSSC-2019)" conducted by Govinda Dasa College Surathkal, 15-16 March 2019 (First Prize in poster presentation)
"Best	
Paper	Nation Conference On National Symposium On Environmental Pollution
Award"	Prevention and Control: Further Perspective (EPPC:FP-2019) (First prize in
	oral presentation)

## Publications

# **International Journals**

Sl. No	Title of the paper	Name(s) of Author( s)	Name of the Journal	Volum e No. Issue No. Year	WOS / Scopu s / Both	Impac t Factor	Publishe r
1	Chromogenic detection of fluoride, dihydrogen phosphate, and arsenite anions based on 2,4- dinitrophenyl hydrazine receptors: Spectral and electrochemica l study	Nagaraj K; Archana Singh; A. Nityanan da Shetty, Dr Darshak TRIVED I	Supramolecul ar Journal Taylor and Frances,	-	SCI	2.7	Taylor and Frances,
2	Design and synthesis new colorimetric receptors for naked-eye detection of biologically important fluoride and acetate anions in organic and arsenite in aqueous medium based on ICT mechanism: DFT study and test strip application	Singh, A., Mohan, M., & Trivedi, D. R	Spectrochimi ca Acta Part A: Molecular and Biomolecular Spectroscopy	225, 117522	SCI	4.7	elsevier
3	Design and synthesis of malonohydrazi de based colorimetric receptors for discrimination of maleate over fumarate	Singh, A., Mohan, M., & Trivedi, D. R.	Spectrochimi ca Acta Part A: Molecular and Biomolecular Spectroscopy	229, 117883	SCI	4.7	elsevier

	and detection of F-, AcO- and AsO2- ions.						
4	Spectroscopic studies of colorimetric receptors for detection of biologically important inorganic F–, AcO– and H2PO4– anions in organo- aqueous medium: Real- life application	Singh, A., Nishith, U., & Trivedi, D. R.	Inorganic Chemistry Communicati ons	115, 107874	SCI	2.695	elsevier
5	Substituent effect on colorimetric detection of biologically and environmentall y relevant anions: Insight in real-life applications	Singh, A., Gowda, R. G., & Trivedi, D. R.	Spectrochimi ca Acta Part A: Molecular and Biomolecular Spectroscopy,	219, 517- 529	SCI	4.7	elsevier
6	Chemosensor Based on Hydrazinyl Pyridine for Selective Detection of F Ion in Organic Media and CO3 2– Ions in Aqueous Media: Design, Synthesis, Characterizatio n and Practical Application.,	Singh, A., Mohan, M., & Trivedi, D. R.	ChemistrySel ect	4(48), 14120- 14131	SCI	2.4	weily
7	Aminophenol based colorimetric chemosensor for naked-eye	Singh, A., Tom, S., & Trivedi, D. R	Journal of Photochemist ry and Photobiology A: Chemistry	353, 507- 520	SCI	5	elsevier

	detection of biologically important fluoride and acetate ions in organo- aqueous medium: Effective and simple anion sensors						
8	Colorimetric anion sensors based on positional effect of nitro group for recognition of biologically relevant anions in organic and aqueous medium, insight real-life application and DFT studies.	Singh, A., Sahoo, S. K., & Trivedi, D. R.	Spectrochimi ca Acta Part A: Molecular and Biomolecular Spectroscopy,	188, 596- 610	SCI	4.7	elsevier
9	Naked-eye' detection of biologically important anions in aqueous media by colorimetric receptor and its real life applications.	Singh, A., & Trivedi, D. R.	Spectrochimi ca Acta Part A: Molecular and Biomolecular Spectroscopy,	179, 95-103.	SCI	4.7	elsevier
10	Green synthesis of 1, 4- benzodiazepin es over La2O3 and La(OH)3 catalysts: possibility of Langmuir– Hinshelwood adsorption.	Singh, A., Palakollu , V., Pandey, A., Kanvah, S., & Sharma, S.	RSC Advances,	6(105), 103455 - 103462.	SCI	3.7	RSC
11	Study on thermo physical	Malek, N. I., Singh,	The Journal of Chemical	74, 103- 118	SCI	3	elsevier

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	properties of	R., &					
	binary systems	Ijardar,					
	of ionic	S. P.					
	liquids.						
	I:[Cnmim][PF						
	6](n= 6, 8) and						
	alkyl acetates.,.						
12	Combustion synthesized La2O3 and La(OH)3: recyclable catalytic activity towards Knoevenagel and Hantzsch reactions.,.	Gangwar , B. P., Palakollu , V., Singh, A., Kanvah, S., & Sharma, S.	RSC Advances	4(98), 55407- 55416	SCI	3.7	elsevier

## **National Journals**

Sl. No	Title of the paper	Name(s) of Author(s )	Name of the Journal	Volum e No. Issue No. Year	WOS / Scopus / Both	Imp act Fact or	Publisher
1	Naked-eye detection of inorganic fluoride and acetate ion in an aqueous medium using organic receptor: Real life application	Singh, A., & Trivedi, D. R.	AIP Conference Proceedings	2142, No. 1, p. 190009	Scopus	1	AIP Conferenc e Proceedin gs
2	Colorimetric detection of biologically important anion based on ICT Between Donor– Acceptor (D– A): Experimental	Trivedi, D. R., Singh, A., & Mohan, M.	International Journal of Photochemistr y,	5(1), 49-56.	Scopus	1	Internatio nal Journal of Photoche mistry

and DFT			
studies.			
International			
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y, 5(1), 49-56.			

## Conferences

Sl. No.	Title of the paper	Name(s) of Author(s)	Name of the Conference	Volume No. Issue No. Year	WOS / Scopus	Impact Factor	Publisher
-	-	-	-	-	-	-	-

# Workshops /Conferences Attended

Sl. No.	Name of the workshop / Conference	Organizer	Date
1	Schiff Base Colorimetric Chemosensor for 7 the Detection of Biologically Important Anions". Paper presented in	"International Conference on Science & Technology: Futher Challenge and Solutions (STFCS-2016)" Mysore	August 8-9,
2	Naked-Eye Detection of Bioactive Anion Colorimetric Anion Sensor: Insight Real Life Application". Paper presented	"International Conference on Crystal Ball Vision on Science & Engineering for Societal Upliftment"	August 7- 8, Goa.
3	Colorimetric detection of biologically important anion based on ICT Between Donor– Acceptor (D–A): Experimental and DFT studies"	"International Conferences on advanced materials, energy & environmental substainablity (ICAMEES-2018)"	14-15 December 2018, Dehradun
4	Design and synthesis of colorimetric anion chemosensor for naked-eye detection of biologically important fluoride and acetate ion.	national conference on "synthesic, spectroscopic and structural chemistry (SSSC- 2019)"	15-16 March 2019, govinda dasa collage
5	"Naked-eye detection of inorganic fluoride and acetate ion in an aqueous medium using	international conference on advance in basic science (ICABS19)	7-9, February 2019, GDC memorial collage, bahal,

	Organic receptor: Real life application"		district bhiwani (Haryana) india.
6	Naked-eye detection of biologically important anions based on a new colorimetric receptors and its application in real sample analysis"	national conference on national symposium on environmental pollution prevention and control: further perspective (EPPC:FP-2019)"	23-25, August 2019.
7	"Synthesis and spectroscopic study of simple naked- eye colorimetric chemosensor for bioactive anions in organic and aqueous medium: Real- life application"	international conference on emerging advancement in science & technology& 10th India-Japan science & technology conclave	September 5- 6, 2019 New Delhi.
8	Colorimetric anion chemosensor for naked-eye detection of biologically important fluoride and acetate ion in aqueous media.	International Conference on Molecules to Materials (MTM – 2021) organized by Department of Chemistry, Sardar Vallabhbhai National Institute of Technology (SVNIT), Surat-07, Gujarat	17-18th December 2021.

# Workshops / Conference (Organized)

Sl. No.	Name of the workshop / Conference	Organized by	Date	Role
-	-	•	-	-

# Conference Attended (those sponsored by AICTE / ISTE/IETE/TEQIP or any other sponsoring body)

Sl. No.	Name of the workshop / Conference	Organizer	Date
-	-	-	-

#### Details of NPTEL / COURSERA courses completed

Sl. No.	Name of the subject	Organized by	Date of completion / Award	Grade / Marks

#### **Membership of Professional Bodies:**

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Any other information you will like to share about your professional experience

#### WORKSHOP ATTENTED

- 1. National workshop on "Nano-structural material and their application in catalysis & Fuel Cells" organized by Department of Chemical Engineering NITK Surthkal from Semptember 29th- 1th, 2016.
- Software and Application of Single Crystal X-Ray Diffraction, 29th–31th August 2019 at Department of Chemistry, Smt. S.S.Patel Nootan Science& Commerce Colleage Visnagar, Dist- Mehsana, Gujarat-384315.
- 3. National workshop on "Recent Advances in Material Chemistry (RAMC)" organized by Department of Chemistry NITK Surthkal on 26 Semptember 2019.