


## FACULTY PROFILE

<b>NAME</b>	<b>BIJU K P</b>	
<b>DESIGNATION</b>	<b>ASSISTANT PROFESSOR</b>	
<b>QUALIFICATION</b>	<b>Ph.D</b>	
<b>EMAIL ID</b>	<b>biju.kp@gmail.com</b>	
<b>ADDRESS</b>	8/428 A, KOOLIYAKKIL NANMINDA-14 NANMINDA CALICUT, 673613	

### POSITIONS HELD IN COLLEGE

- Member in PG admission committee
- Purchase Committee Member

### TEACHING INTERESTS

Material Science and Thin films  
Semiconductor device Physics and Electronics  
Computational Physics  
Solid State Physics

### RESEARCH AREAS

Resistive memory, Humidity Sensors and Group III Nitrides Semiconductors, Thin films, Photocatalysis

### RESEARCH GUIDESHIP AND CENTRE

**RESEARCH CENTRE: PG & RESEARCH DEPARTMENT OF PHYSICS, FAROOK COLLEGE**

### Ph.D GUIDED

SL.NO	NAME OF THE STUDENT	TITLE	UNIVERSITY & WORK CENTRE	MONTH/ YEAR
1	K M Shafi	Development of TiO <sub>2</sub> and ZnO based transparent resistive random access memory devices	Farook College	June 2020

2	Muhammed Shibu	ZnO/TiO <sub>2</sub> Multilayer Stalk to Improve the Quality and Stability of Humidity Sensor	Farook College	June 2020
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#### **RESEARCH PROJECTS/GRANTS/FELLOWSHIPS RECEIVED**

SL.NO	TITLE	INVESTIGATORS	SPONSORING AGENCY	MONTH/YEAR
1	Understanding the origin of Resistance switching mechanism for Non-volatile memory application	Biju K P	UGC - MRP(S)-0226/12- 13/KLCA062/UGC- SWRO	2012-2013

#### **MEMBERSHIPS IN BOARD/ ASSOCIATION/ PROFESSIONAL AFFILIATIONS**

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#### **INVITED TALKS/IN MEDIA/ANY OTHER**

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#### **JOURNAL PUBLICATIONS**

SL. NO	TITLE	NAME OF JOURNAL / VOL. NO / ISSUE NO / PAGE NOS	ISSN NO	MONTH / YEAR
1	Role of growth pressure on Structural, optical and electrical properties of indium Nitride thin films prepared by modified activated reactive evaporation <a href="https://doi.org/10.1016/j.matpr.2022.05.554">https://doi.org/10.1016/j.matpr.2022.05.554</a>	Materials today: Proceedings		June 2022
2	Low Temperature Sol-Gel Processed Zirconium Oxide Based Transparent Resistive Random Access Memory Devices <a href="https://doi.org/10.1149/10701.14547ecst">https://doi.org/10.1149/10701.14547ecst</a>	ECS Transactions, Volume 107, Number 1, 14547		2022
3	Sol-Gel Processed ZrO <sub>2</sub> Based Forming-Free Resistive Switching Memory Devices <a href="https://doi.org/10.4028/www.scientific.net/MSF.1048.198">https://doi.org/10.4028/www.scientific.net/MSF.1048.198</a>	Materials Science Forum 1048 198-202		2022
4.	Resistive switching characteristics of thermally oxidized TiN thin films <a href="https://doi.org/10.1063/1.5028793">https://doi.org/10.1063/1.5028793</a>	AIP Conference Proceedings 1942, 060023		2018

5.	The origin of polarity dependent switching type in solution processed Pt/TiO <sub>2</sub> /Pt memory devices <a href="https://doi.org/10.1063/1.4917850">https://doi.org/10.1063/1.4917850</a>	AIP Conference Proceedings 1665, 060015		2015
6	Resistive switching characteristics and mechanism of thermally grown WO <sub>x</sub> thin films <a href="https://doi.org/10.1063/1.3633227">https://doi.org/10.1063/1.3633227</a>	Journal of Applied Physics 110, 064505 (2011)		2011
7	Surface modification of sol gel TiO <sub>2</sub> surface with sputtered metallic silver for Sun light photocatalytic activity: Initial studies <a href="https://doi.org/10.1016/j.solmat.2012.01.023">https://doi.org/10.1016/j.solmat.2012.01.023</a>	Solar Energy Materials and Solar Cells 101 (2012): 241-248		2012
8	Improved resistive switching properties of solution processed TiO <sub>2</sub> thin films <a href="https://doi.org/10.1149/1.3494433">https://doi.org/10.1149/1.3494433</a>	<i>Electrochemical and Solid State Letters</i> 13.12 (2010): H443		2010
9	Growth of InN nanocrystalline films by activated reactive evaporation <a href="https://doi.org/10.1166/jnn.2009.1123">https://doi.org/10.1166/jnn.2009.1123</a>	<i>Journal of nanoscience and nanotechnology</i> 9, no. 9 (2009): 5208-5213	9	2009
10	Growth of InN thin films by modified activated reactive evaporation <a href="https://doi.org/10.1088/0022-3727/41/15/155409">https://doi.org/10.1088/0022-3727/41/15/155409</a>	<i>Journal of Physics D: Applied Physics</i> 41.15 (2008): 155409.	15	2008
11	Annealing studies on InN thin films grown by modified activated reactive evaporation <a href="https://doi.org/10.1016/j.jcrysgro.2009.01.105">https://doi.org/10.1016/j.jcrysgro.2009.01.105</a>	<i>Journal of crystal growth</i> 311.8 (2009): 2542-2548.	8	2009
12	Low-temperature growth of polycrystalline GaN films using modified activated reactive evaporation <a href="https://doi.org/10.1016/j.jcrysgro.2009.01.127">https://doi.org/10.1016/j.jcrysgro.2009.01.127</a>	<i>Journal of crystal growth</i> , 311(8), 2275-2280.	8	2009
13	Role of Charged Species on the Growth of GaN Films by Modified Activated Reactive Evaporation <a href="https://doi.org/10.1149/1.3512991">https://doi.org/10.1149/1.3512991</a>	<i>Electrochemical and Solid State Letters</i> 14.1 (2010): H46.		2010
14	Bipolar resistance switching in the Pt/WO <sub>x</sub> /W nonvolatile memory devices <a href="https://doi.org/10.1016/j.cap.2010.11.124">https://doi.org/10.1016/j.cap.2010.11.124</a>	<i>Current Applied Physics</i> 11.2 (2011): e62-e65		2011
15	The effect of rf power on the growth of InN films by modified activated reactive evaporation <a href="https://doi.org/10.1016/j.apsusc.2008.05.297">https://doi.org/10.1016/j.apsusc.2008.05.297</a>	<i>Applied surface science</i> , 254(22), 7259-7265.	22	2008
16	Highly asymmetric bipolar resistive switching in solution-processed Pt/TiO <sub>2</sub> /W devices for cross-point application <a href="https://doi.org/10.1016/j.cap.2011.07.018">https://doi.org/10.1016/j.cap.2011.07.018</a>	<i>Current Applied Physics</i> , 11(4), S102-S106.		2011
17	Coexistence of filamentary and homogeneous resistive switching in graded WO <sub>x</sub> thin films <a href="https://doi.org/10.1002/pssr.201004455">https://doi.org/10.1002/pssr.201004455</a>	<i>Physica status solidi (RRL)–Rapid Research Letters</i> , 5(3), 89-91,2011		2011

18	Asymmetric bipolar resistive switching in solution-processed Pt/TiO <sub>2</sub> /W devices. <a href="https://doi.org/10.1088/0022-3727/43/49/495104">https://doi.org/10.1088/0022-3727/43/49/495104</a>	Journal of Physics D: Applied Physics, 43(49), 495104.2010		2010
19	Effect of crystallization on humidity sensing properties of sol-gel derived nanocrystalline TiO <sub>2</sub> thin films <a href="https://doi.org/10.1016/j.tsf.2007.06.147">https://doi.org/10.1016/j.tsf.2007.06.147</a>	Thin Solid Films, 516(8), 2175-2180,2008		2008
20	Sol-gel derived TiO <sub>2</sub> :ZrO <sub>2</sub> multilayer thin films for humidity sensing application <a href="https://doi.org/10.1016/j.snb.2007.06.029">https://doi.org/10.1016/j.snb.2007.06.029</a>	Sensors and Actuators B: Chemical 128.2 (2008): 407-413		2008
21	Effect of polyethylene glycol additive in sol on the humidity sensing properties of a TiO <sub>2</sub> thin film. <a href="https://doi.org/10.1088/0957-0233/18/9/033">https://doi.org/10.1088/0957-0233/18/9/033</a>	Measurement Science and Technology, 18(9), 2991		2007

### CONFERENCE PUBLICATIONS

SL.NO.	TITLE	NAME OF CONFERENCE	VENUE, MONTH / YEAR
1.	Low Temperature Sol-Gel Processed Zirconium Oxide Based Transparent Resistive Random-Access Memory Devices	Vol. 1 No. 01 (2021): Smart Green Connected Societies	29/11/2021 and 30/11/2021
2.			
3.			

### ARTICLES IN PERIODICALS/MAGAZINES/ANY OTHER

SL.NO.	TITLE	NAME OF PERIODICAL	MONTH/ YEAR

### BLOG/WEB ARTICLES

SL.NO.	TITLE	URL	SUBJECT	MONTH / YEAR

### BOOKS AS AUTHOR/EDITED/CHAPTERS/REVIEWS

SL.NO	TITLE	AUTHOR NAMES	ISBN NO.	MONTH/ YEAR
1.				

### SEMINARS ORGANIZED

SL.NO	NAME OF THE SEMINAR	NAME OF THE ORGANISER & SPONSORING AGENCY	VENUE & DATE	POSITION HELD	LEVEL *
1.					
2.					
3					

**\*state/national/international**

**MOOC COURSE CONDUCTED**

SL.NO	NAME OF THE PROGRAMME	NAME OF THE ORGANISER & SPONSORING AGENCY	VENUE & DATE	LEVEL *
1.				
2.				

**E-CONTENT DEVELOPED**

SL.NO	SUBJECT	TOPIC	WEBSITE LINK
1.			
2.			

**PAPER PRESENTATION AT STATE / NATIONAL/ INTERNATIONAL PROGRAMMES**

SL.NO	TITLE OF THE PAPER	NAME OF THE INSTITUTION	NAME OF THE ORGANISER & SPONSORING AGENCY	VENUE & DATE
1.	Existence of hydrostatic strain in InN film grown by modified activated reactive evaporation	SRM Institute Of Science And Technology	"International Conference On Advanced Materials And Mechanical Characterization (ICAMMC-2021)"	2-4 December 2021
2.				

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**SEMINARS/CONFERENCES/WORKSHOPS ATTENDED**

SL.NO	NAME OF THE PROGRAMME	NAME OF THE ORGANISER & SPONSORING AGENCY	VENUE & DATE	LEVEL *
4.				
5.				
6.				

**OTHER PROGRAMMES ATTENDED**

SL.NO	NAME OF THE PROGRAMME	NAME OF THE ORGANISER & SPONSORING AGENCY	VENUE & DATE	LEVEL *
1.				
2.				

**PARTICIPATION /DEPUTAED IN PROJECTS/EXTENDED ACTIVITIES INITIATED BY GOVERNMENT**

SL.NO	NAME OF THE PROGRAMME	NAME OF THE ORGANISER & SPONSORING AGENCY	PERIOD/DURATION
1.			
2.			

**AWARDS/ACHIEVEMENTS/ POSITIONS/ OTHERS**

SL.NO.	NAME OF AWARDS/ ACHIEVEMENTS/OTHERS	DESCRIPTION	MONTH/ YEAR

1.			
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**OTHER RELEVANT INFORMATION IF ANY**