Kalaignar karunanidhi Government Arts College for women (Autonomous), Pudukkottai-622001

STAFF PROFILE

i) General Information

a) Name : **A. MONAMARY**

b) Address (Residential) : **M – 210; PHASE II; ANNA NAGAR; TIRUCHIRAPPALLI – 620026.**

c) Designation : **GUEST LECTUREE**

d) Department : **PHYSICS**

e) Date of Birth : **05/07/1989**

f) E-mailid : monamary.mvr@gmail.com

g) Area of Specialization : THIN FILMS, NANOMETERIALS

A) Academic Qualifications

Exam Passed	Subjects	Board/ University	Year	Division/ Grade/ Merit, etc.
High School	TAMIL, ENGLISH, MATHS, SCIENCE, SOCIAL SCIENCE	STATE BOARD	2004	72%
Higher Secondary or Pre-degree	MATHS, PHYSICS, CHEMISTRY, COMPUTER SCIENCE	STATE BOARD	2006	62 %
UG	B.Sc PHYSICS	Bharathidasan University, Trichy	2009	63 %
PG	M.Sc PHYSICS	Bharathidasan University, Trichy	2012	87 % **(Distinction)**
M.Phil.,	PHYSICS	Bharathidasan University, Trichy	2013	87 % **(Distinction)**
Ph.D.,	PHYSICS	Bharathidasan University, Trichy	2018	**Highly Commended**
National Educational Testing (NET) UGC				
State Level Educational Testing (SLET)				

ii) Research Experience & Training

Research Stage	Title of work / Thesis	University where the work was carried out
M. Phil.	Characterization and Synthesis of thin films prepared by spray pyrolysis deposition	Bharathidasan University, Trichy
Ph.D.	Preparation and characterization of thin films for gas sensing application	Bharathidasan University, Trichy
Post-Doctoral		
Publications (give a list separately)	**Annexure-I**	-------
Research Guidance (give names of students guided successfully)	**Annexure-II**	-------
Training (please specify)	**Annexure-III**	-------

B) Research Projects carried out

S. No.	Title of the Project	Name of the Funding Agency	Duration	Remarks
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C)* Seminars, Conferences, Symposia Workshops etc. attended *(If necessary, give a separate list)

Name of the Seminars / Conferences / Symposia / Workshops etc	Name of the Sponsoring Agency	Place and Date
Annexure-IV p-type Ni:TiO_2 nanorods fabricated on ITO substrate for H_2 sensing application, **Oxford Instruments Seminar on Bringing the Nanoworld together,** 3-4 2015, IIT Madras. ➢ Effect of Ni incorporation on the properties of TiO_2 nanoparticles synthesized by microwave technique, **International Conference on Recent Advancements in Advanced Materials**, 19-20 Sep		

2016, Ananda College, Devakottai.

- Effect of post deposition annealing on the properties of nano fibrous MnO_2 film prepared on c-cut sapphire by novel spray pyrolysis, **International Conference on Materials for Sustainable Future**, 14-15 July 2016, Sastra University, Thanjavur.

- Electron beam and spray technologies fabrication of hybrid Fe:TiO_2 nanocomposite on ITO for detection of hydrogen at room temperature, **International conference on Frontiers in Advanced Materials and their Applications**, 9th Jan 2018, Bishop Heber College, Tiruchirappalli.

iii) Teaching Experience

Courses Taught	Name of the University / College / Intuition	Duration
iv) UG (BA / B.Sc., etc. Pass) (BA / B.Sc., etc. Hons.)	Kalaignar karunanidhi Government Arts College for women	January (2023) to till date
v) PG (MA / M.Sc., etc.)	Kalaignar karunanidhi Government Arts College for women	January (2023)) to till date

Total Teaching Experience (in years and months):

a) Under-graduate (Sci.) : Six month

b) Under-graduate (Hons.) : Six month

c) Post-graduate : Six month

d) Research :

:

viii) **Innovations/ Contributions in Teaching** ***(If necessary, give a separate list)***

a) Design of Curriculum:	
b) Teaching methods:	
c) Laboratory experiments:	
d) Evaluation methods:	
e) Preparation of resource material including books, reading materials, laboratory manuals etc.:	
f) Remedial Teaching / Student Counseling (academic) :	
g) Any other:	

a) **Extension Work/ Community Service *(If necessary, give a separate list)***

i) Please give a short account of your contribution to:

ii) Community work such as values of National Integration, secularism, democracy, socialism, humanism, peace, scientific temper, flood or drought relief, small family norms etc. :

b) National Literacy Mission : Positions held / leadership role played in organizations linked with Extension Work National Service Scheme (NSS), or NCC or any other similar activity :

c) D. Participation in Corporate Life

d)

Please give a short account your contribution to:

a) College/ University / Institution	
b) Co-curricular Activities	
c) Enrichment of Campus Life (Hostels, sports, games, cultural activities)	
d) Students Welfare and Discipline	
e) Membership / Participation in Bodies / Committees on Education and National Development	
f) Professional Organization of Teachers	

E.

(a) Membership of Professional Bodies, Societies etc. : Nil

- **Reviewer**:
- **Member:**
- **Life Member:**

(b) Editorship of Journals: Nil

F. Any other information :

(Signature of the Teacher)

Annexure-I

Publication

1. Fe overlayered hybrid TiO_2/ITO nanocomposite sensor for enhanced hydrogen sensing at room temperature by novel two-step process, **A. Monamary**, K. Vijayalakshmi, and S. David Jereil, **Sensors and Actuators B: Chemical** 287 (2019) 278-289. (**Impact factor: 7.460**)

2. Influence of post-deposition annealing and the ITO underlayer on the properties of hybrid TiO_2/ITO nanocomposite for enhanced hydrogen sensing at room temperature, **A. Monamary**, K. Vijayalakshmi, and A. Renitta, **Ceramics International** 44 (2018) 993-1001. (**Impact factor: 4.527**)

3. Substantial effect of palladium overlayer deposition on the H_2 sensing performance of TiO_2/ITO nanocomposite, **A. Monamary**, and K. Vijayalakshmi, **Ceramics International** 44 (2018) 22957-22962. (**Impact factor: 4.527**)

4. Novel hydrogen sensor based on p-type Ni:TiO_2 nanorods fabricated on ITO substrate, K. Vijayalakshmi, and **A. Monamary**, **Journal of Materials Science: Materials in Electronics** 27 (2016) 140-145. (**Impact factor: 2.478**)

5. Hybrid Cr/TiO_2/ITO nanoporous film prepared by novel two step deposition for room temperature hydrogen sensing, **A. Monamary**, K. Vijayalakshmi, and S. David Jereil, **Physica B: Condensed Matter** 553 (2019) 182-189. (**Impact factor: 2.436**)

6. Highly sensitive hydrogen sensor based on nickel incorporated TiO_2 nanostructures operating at room temperature, **A. Monamary**, and K. Vijayalakshmi, **Journal of Materials Science: Materials in Electronics**, 29 (2018) 5316-5326. (**Impact factor: 2.478**)

7. Highly sensitive H_2O_2 sensor based on annealed MnO_2/Al_2O_3 nanofibers prepared by a novel spray pyrolysis deposition, K. Vijayalakshmi, and **A. Monamary**, **Journal of Analytical and Applied Pyrolysis**, 128 (2017) 268-274. (**Impact factor: 5.541**)

8. Substantial effect of Pd incorporation in MnO_2 synthesized by spray pyrolysis on MWCNTs/Ta electrode for better H_2O_2 sensitivity, S. David Jereil, K. Vijayalakshmi, and **A. Monamary**, **Ceramics International** 45 (2019) 3782-3790. (**Impact factor: 4.527**)

9. Fabrication of highly sensitive MnO_2/F-MWCNT/Ta hybrid nanocomposite sensor with different MnO_2 overlayer thickness for H_2O_2 detection, S. David Jereil, K. Vijayalakshmi, **A. Monamary**, **Ceramics International** 44 (2018) 8064-8071. (**Impact factor: 4.527**)

10. Substantial effect of Pd incorporation on the room temperature hydrogen sensing performance of ZnO/ITO nanowires prepared by spray pyrolysis method, K. Vijayalakshmi, A. Renitta, and **A. Monamary**, **Journal of Materials Science: Materials in Electronics**, 29 (2018) 21023-21032. (**Impact factor: 2.478**)

11. Novel two-step process for the fabrication of MnO_2 nanostructures on tantalum for enhanced electrochemical H_2O_2 detection, K. Vijayalakshmi, A. Renitta, K. Alagusundaram, and **A. Monamary**, **Materials Chemistry and Physics**, 214 (2018) 431-439. (**Impact factor: 4.094**)

Annexure-II

<u>Research Experience & Training : Research Guidance</u> Ph.D. /M.Phil., (Department name)

S.No	Name of the Scholar	M.Phil ./ Ph.D.	Year	FT/PT	University	Pursuing/ Completed/ Awaiting for Viva
1.						
2						
3						
4						

Annexure-III

S.No.	Name of the Training	Name of the sponsoring agency	Place and Date
1			
2			
3			

Annexure IV

S.No.	Name of the Event	Name of the sponsoring agency	Place and Date
1			
2			
3			
4.			
5.			