

BIODATA

Name of the college : Sri Meenakshi Government Arts College for Women, Madurai-2

PERSONAL DATA

1	Name	J.S.P.CHITRA
2	Qualification	M. Sc, B.Ed, PGDCA, M.Phil, Ph.D
3	Designation & Department	ASSISTANT PROFESSOR, PHYSICS
4	Age & Date of Birth	52, 16.04.1970
5	Sex	Female
6	Date of Joining in Government Collegiate Service	26.12.2007
7	Date of joining in collegiate service	2.8.1995
8	Mode of Selection	TRB
9	Communal Turn	GT
10	Marks obtained	38/39, First Mark, Rank - 4
11	Marital status	Married
12	Nationality	Indian
13	Indicate category: SC/ST/OBC/General category	OBC
14	Area of specialization	THIN FILMS
15	Teaching experience	25 years

Educational Qualification

Courses	University	Year of passing	Class	Subject
M.Sc	Madurai Kamaraj University	1992	First , Rank 4 in MKU	Physics
M.Phil	Alagappa University	1995	First , Rank 2 in ALU – highly recommended	Physics – Thin films
Ph.D	Alagappa University	2003	Highly recommended	Physics – Thin films
B.Ed	Madurai Kamaraj University	1993	First	Physical science
PGDCA	Madurai Kamaraj University	1994	First	Computer application

Research Experience :

Research stage	Title of the work /Thesis	University where the work was carried out
M.Phil	Synthesis and characterization of WSe₂ thin films	Alagappa University
Ph.d	Studies on Electroplated Cu₂O thin films for Solar Cell Applications	Alagappa University

Orientation / Refresher courses / other programmes and Training

Nature of the course	Place	Duration	Sponsoring Agency
Orientation course	Bharathidasan University, Tiruchirappalli	26.12.2007 - 24.1.2008	Tamilnadu state council for Higher Education, Chennai & UGC
Refresher course	Madurai Kamaraj University, Madurai.	3.11.2009- 23.11.2009	UGC
Refresher course	Tamil University, Thanjavur.	22.12.2010- 11.01.2011	UGC
Training under the intel teach to the Future Programme	Lady Doak College, Madurai	July – September' 2002 (3 months)	Intel innovation in Education
Training programme on Research instruments	AyyaNadarJanaki Ammal college, Sivakasi	28.9.12, 29.9.12	Instrumentation center, ANJAC, Sivakasi & UGC , New Delhi
Training on Photovoltaic power system – Assembly and installation	Sri Meenakshi Govt. Arts College for women, Madurai-2.	8.1.2015	Gemco Renewable Energy Training institute
Training on Materials characterization Techniques	IRC, Kalasalingam University	9.1.2015	International Research Centre, UGC
Training on PCB Design and Layout	Sri Meenakshi Govt. Arts college for women, Madurai-2.	7.1.2015	e-careerpluz, Info (India) Private Ltd.
Training on New Materials and Devices for Photovoltaic applications	Dept. of Material science, School of Chemistry	10-12 Feb'2011	Madurai Kamaraj University, UGC
Training on Solar Thermal and Photovoltaic Techniques	Dept. of Solar Energy, School of Energy, Environment Resources	5.10.2017, 6.10.2017	Madurai Kamaraj University, UGC
Short Term certificate course	Department of Applied Chemistry, Karunya Institute of Technology and Sciences, Coimbatore.	19.04.2021 - 23.04.2021	5 days

Refresher course in Physics	UGC-Human Resource Development Centre, Madurai Kamaraj University	10.11.2021 – 23.11.2021	14 days
------------------------------------	--	------------------------------------	----------------

Papers Published in Journals – Citations – 432 , h-index - 6

S.No	Title with Page Nos.	Journal	ISSN/ISBN No.	Impact factor
1	Galvanostatic deposition and characterization of cuprous oxide thin films. –(304-310)	International- Journal of Crystal growth	0022-0248	3.972
2	Preparation and microstructural studies of electroplated Cu ₂ O thin films- (1802-1807)	International- Materials letters	0167-577x	2.79
3	Potentiostatic deposition and characterization of cuprous oxide thin films-(1-5)	International- Semiconductor Science and Technology	0268-1242	2.305
4	Characterization of Pulse plated Cu ₂ O thin films- (111 – 114)	International- Surface coatings and Technology	0257-8972	2.36
5	Structural and annealing studies of potentiostatically deposited Cu ₂ O thin films- (209-216)	International- Solar energy materials & Solar cells	0927-0248	5.337
6	Photoelectro chemical solar cell studies on electroplated Cu ₂ O thin films – (519-523)	International- J.Mater.Sci: Mater Electron	0957-4522	2.019

**Seminar / conference / workshop conducted by the department –
Participated and involved in organization**

Name and level of the programme	Title	Place	Period
National Seminar	Current trends in Crystal growth and solar energy	Sri Meenakshi Govt. Arts College for women, Madurai-2	22.1.2013
National Seminar	Recent developments in Space Technology and Astrophysics	Sri Meenakshi Govt. Arts College for women, Madurai-2	5.1.2015
UGC Workshop	Solar energy based photovoltaic power system- Assembly and Installation	Sri Meenakshi Govt. Arts College for women, Madurai-2	8.1.2015
workshop	PCB Design and Layout	Sri Meenakshi Govt. Arts College for women, Madurai-2	7.1.2015
International Conference	Recent trends in Material science and applications	Sri Meenakshi Govt. Arts College for women, Madurai-2	6.1.2017
National Conference	Achievements in space science and astrophysics	Sri Meenakshi Govt. Arts College for women, Madurai-2	20.1.2017
Workshop	PCB design and Layout	Sri Meenakshi Govt. Arts College for women, Madurai-2	7.1.2015
webinar	Magnetic materials	Sri Meenakshi Govt. Arts College for women, Madurai-2	30.4.2022

Seminar / Workshop / Symposium / Training - Attended / Presented / Accepted :

S.No	Title	Nature of the Program	Conducted by	Date	Venue	
1	Characterization of Cu ₂ O Thin Film for Solar Cell Applications	International Conference - Presented	Dept. of Physics, Thiagarajar College of Engineering	January (7-9) 2009	Thiagarajar College of Engineering, Madurai.	
2	Current and Future radiation research between India and Japan	International Seminar - Attended	Dept. of Physics, Kalasalingam University, India and School of Biomedical Sciences, Nagasaki University, Japan	February 5, 2009	Kalasalingam University, Krishnankoil.	
3	Studies on Cu ₂ O thin film based Solar Cell for rural development	National Conference - Presented	Gandhigram Rural University	March 26, 2009	Gandhigram Rural University, Gandhigram.	
4	Nanotechnology for Energy and Environmental Applications - 2009	National Seminar - Attended	Dept. of Chemistry / Centre for Nanotechnology	April 9, 2009	Kalasalingam University, Krishnankoil	
5	Stone Cold Science - Bose Einstein Condensation	National Seminar - Attended	Dept. of Physics, Thiagarajar College of Engineering	Sep.23-24, 2009	Thiagarajar College of Engineering, Madurai	
6	Youth empowerment and release of the book "Be Ambitious" by Dr.C.SylendaraBabu	State Level Seminar - Attended	American College	Dec. 15, 2009	American College , Madurai	
7	Photoelectrochemical Solar Cell Studies on electroplated cuprous oxide thin films	International Symposium - Accepted	Mexican Academy of Materials Science	August (21-25), 2005	Mexican Academy of Material Science, Cancun, Mexico	
8	Potentiostatic Deposition and Characterization of Cu ₂ O thin films	National Seminar - Accepted	Central Electrochemical Research Institute	July 1998	CECRI, Karaikudi	
9	Conductivity enhancement of Cu ₂ O thin films	43rd DAE Solid State Physics Symposium - Accepted	Guru Chasidas University, Sponsor-Board of Research in Nuclear Sciences, DAE, Govt. of India	Dec. (27-31) 2000	Guru Chasidas University, Bilaspur (M.P)	
10	Pulse plating and characterization of	43rd DAE Solid State	Guru Chasidas University, Sponsor-	Dec. (27-31)	Guru Chasidas University,	

	Cu ₂ O thin films	Physics International Symposium - Accepted	Board of Research in Nuclear Sciences, DAE, Govt. of India	2000	Bilaspur (M.P)	
11	Spectroscopical Analysis and Characterization of Cu ₂ O thin films for photovoltaic applications	National Seminar - Presented	Physics Section, Faculty of Engineering and Technology	March (25 – 26) 2004	Annamalai University, Annamalainagar.	
12	Characterization of pulsed plated Cu ₂ O thin films for constructing high efficiency solar cells	National Conference - Accepted	PG Dept. of Physics & Electronics	Sep. (24-26) 2004	DAV College, Amritsar	
13	Training under Intel Teach to the Future program	Training Programme - Attended & Presented Report	Intel Innovation in Education	(Jul -Sep) 2002	Lady Doak College, Madurai	
14	Recent Advancement in Astrophysics	State Level Seminar - Attended	Dept. of Physics - VVV College for Women	07.10.2010	VVV College for Women(A), Virudhunagar.	
15	New Materials and Devices for Photovoltaic Applications	International Conference & Workshop - Attended	Dept of Materials Science, School of Chemistry	Feb (10-12) 2011	Madurai Kamaraj University, Madurai.	
16	Advanced Functional Materials & Applications	National Conference - Attended	Dept of Chemistry & Centre for Nanotechnology	December (16-17) 2011	Kalasalingam University, Krishnankoil	
17	Orientation & Refresher Course	NAAC Peer Team Review Meeting - Attended	Academic Staff College	24.01.2012	Madurai Kamaraj University, Madurai.	
18	State Level Two Days Lecture cum Training Programme on Research Instruments	State Level Training - Attended	Instrumentation Centre, ANJAC, Sivakasi.	Sep (28-29) 2012	AyyaNadarJanakiAmmal College, Sivakasi.	
19	Current Trends in Crystal Growth and Solar Energy	National Seminar - Attended	Dept. of Physics, Sri Meenakshi Govt. Arts College	22nd Jan 2013	Sri Meenakshi Govt. Arts College for women (A), Madurai	
20	Approaches to Classroom - based Research Methods	National Seminar - Attended	Centre for Educational Research	Feb (8-9) 2013	Madurai Kamaraj University,	

					Madurai	
21	Recent Developments in Space Technology and Astrophysics	National Seminar - Attended	Dept of Physics, Sri Meenakshi College for Women, MDU-2	5th Jan 2015	Sri Meenakshi Govt. College for Women(A), Madurai	
22	Progress in Condensed Matter Physics	State Level Seminar - Attended	Research Centre and PG Dept. of Physics	Jan 7 - 2015	Madura College, Madurai.	
23	PCB Design and Layout	Workshop – Attended	e-careerpluz Info (India) Private Limited	6th Jan. 2015	Sri Meenakshi Govt. Arts College for Women(A), Madurai	
24	Solar Energy based Photovoltaic Power System - Assembly and Installation	Workshop - Attended	Gemco Renewable Energy Training Institute	8th Jan 2015	Sri Meenakshi Govt. Arts College for Women(A), Madurai	
25	Materials Characterization Techniques	Workshop - Attended	International Research Centre	9th Jan 2015	Kalasalingam University, Krishnankoil	
26	Recent Trends in Material Science and Applications	International Conference - Attended	Dept of Physics, Sri Meenakshi Govt. Arts College	6th Jan 2017	Sri Meenakshi Govt. Arts College for women (A), Madurai	
27	Achievements in Space Science and Astrophysics	National Conference - Attended	Dept of Physics, Sri Meenakshi Govt. Arts College	20th Jan 2017	Sri Meenakshi Govt. Arts College for women(A), Madurai	
28	Solar Thermal and Photovoltaic Techniques	National Seminar - Attended	Department of Solar Energy	oct (5-6) 2017	Madurai Kamaraj University, Madurai	
29	Understanding Quantum Mechanics	State Level Seminar - Attended	Department of Physics	Aug (29-30) 2019	V.H.N.Senthikumar Nadar College, Virudhunagar.	
30	Revolutionary Era of Medical Physics	National Seminar - Attended	Dept. of Physics	27 th Jan 2020	V.V.Vanniaperumal College for women(A), Virudhunagar.	
31	Current Trends in Physics	National Seminar -	Department of Physics	5 th Feb. 2020	Sri Meenakshi Govt. Arts	

		Attended			College for women(A), Madurai	
32	Transpiring trends and challenges in Forensic Science	National Seminar - Attended	Department of Applied Chemistry, School of sciences, Arts, Media and Management, Karunya Deemed University	2 nd Jul 2021	Department of Applied Chemistry, School of sciences, Arts, Media and Management, Karunya Deemed University, Coimbatore	
33	Recent Trends in natural products research and their applications (RTNPRA-21)	Indo-Malaysian Two – Day International Econference Attended	School of chemistry, Madurai Kamaraj University and BioSES Research interest Group, Faculty of science and marine environment, University of Malaysia.	Sep. (16,17) 2021	School of chemistry, Madurai Kamaraj University.	
34	Overview of securities market and career growth	Webinar- Attended	BSE investors protection fund	22 nd Oct. 2021	Department of MBA Sri Meenakshi Govt. Arts College for women(A), Madurai	
35	Multi-wavelength astronomy from ground and space	National webinar - Attended	PG & Research department of physics, NMS S. VellaichamyNadar College, Madurai	24 th Nov. 2021	PG & Research department of physics, NMS S. VellaichamyNadar College, Madurai	
36	Carbon materials for energy applications	National e-Workshop Attended	Indian Carbon Society , CSIR-National Physical Laboratory, New Delhi , India	13 th Dec. 2021	Indian Carbon Society , CSIR-National Physical Laboratory, New Delhi , India	
37	Development of new cost-effective nano formulations for	National Webinar – Attended	Department of chemistry, SRM University, Delhi	18 th Dec. 2021	Department of chemistry, SRM University, Delhi	

	chemotherapeutics					
38	Silicon crystal growth for photovoltaic applications	Indo-Japan Workshop- Attended	SSN College of Engineering , Chennai, & Nagoya University, Japan	7 th Jan. 2022	SSN Research centre, SSN college of Engineering, Kalavakkam, Chennai.	
39	Raman Spectroscopy and its Applications in Materials Science	International Webinar Attended	Department of Chemistry, Sethu Institute of Technology	28 th January 2022	Department of Chemistry, Sethu Institute of Technology	
40	Functional materials for energy, environment and biomedical applications	Indo-Norwegian International online conference Attended	Institute for Energy Technology, University of Oslo, Norway and Madurai Kamaraj University, India	2-4 , Feb. 2022	Dept. of Physics Madurai Kamaraj University, Madurai	
41	Materials Science and Computational methods	International online workshop Attended	PG and Research dept. of Physics, Jamal Mohamed college(A),Tiruchirappalli under DBT Star College Scheme	15,16 Feb. 2022	PG and Research dept. of Physics, Jamal Mohamed college(A), Tiruchirappalli	
42	Women Empowerment	National level virtual power seminar Attended	AnnaiVailankanni Arts and Science College,Thanjavur,Tamilnadu in collaboration with ICT Academy	8 th Mar.2022	AnnaiVailankanni Arts and Science College, Thanjavur,	
43	Current trends in nanomaterials	One day International Webinar - Attended	PG and Research Department of Physics, DST-FIST sponsored	29 th March 2022	Sri Sarada College for Women (A), Salem.	
44	Magnetic materials	Webinar - Attended	Department of physics	30 th April 2022	Sri Meenakshi Govt. Arts College for women(A), Madurai	
45	Materials– Properties, Measurements and Applications	International conference – Attended	Research and postgraduate department of physics	9 to 13 May 2022	Fatima Mata National College, Kollam, Kerala	

Guidance for M.Sc

Year	Title of Thesis	Name of the students
(2014-2015)	Synthesis and characterization of CdS Thin films	K.Malarkodi,K.Jeeva
(2015-2016)	Studies on I – section girders by non-uniform bending techniques.	S.Vinothini
(2015-2016)	Studies on I-section girders by uniform bending techniques.	G.Gowsalya
(2016-2017)	Studies on Fraunhofer spectral lines for solar cell applications	R.Sathyapriya
(2017-2018)	Rock analysis by Physical techniques	M.Murugeswari
(2018-2019)	Studies on effect of cell phone radiation and radisafers	P.Vennila
(2019-2020)	Studies on various salts of medical applications	K. Muthulakshmi
(2020-2021)	Studies on role of water parameters on human health	S. Bharathirani
(2021-2022)	1.Studies on quality and usage of coffee for medical applications 2. studies on quality and usage of tea for medical applications	K. Kamali S. Swetha

Other Responsibilities hold in service

a) Student related co-curricular , extension activities and field based activities

S.No.	Name of the service/committee	No. of years	Period
1	Youth welfare coordinator	2	2009-2011
2	Science forum incharge	1	2010-2011
3	CLP coordinator	11/2	2011-2013
4	Consumer forum coordinator	½	2012-2013
5	AVE (Audio – Visual incharge)	2	2012-2014
6	EDUSAT incharge	2	2012-2014
7	AISHE Nodal officer	6	2014-2020
8	Decoration incharge	2	2008-2010
9	Union accounts incharge	2	2019-2021

b) Contribution to management of the department

S.No.	Name of the service/committee	No. of years	Period
1	Time table and examination duty	1	2008-2009
2	Practical exam incharge (UG&PG)	2	2015-2017
3	Admission incharge	3	2009-10,13-14,16-17
4	Teacher incharge	4 periods	2008-10, 11-14, 15-17, 19-21
5	Student incharge	1	2010-2011
6	Circular incharge	1	2010-2011
7	Indent incharge (state,UGC)	3	2009-2012
8	Major lab incharge	3	2009-2012
9	Service and repairing incharge	3	2009-2012
10	Auction incharge	3	2009-2012
11	Furniture incharge	4	2008-09, (14-17)
12	RT incharge	2	2015-17
13	Board of studies incharge	5	2017-2022
14	Model exam incharge	5	2017-2022
15	Association meeting related works	13	2008-2022
16	Board of studies member	9	2012-2021

Extension Activity – (2012-2013)

Students are trained to explain mini projects to students in nearby government school. Students in the government school came to our college and they enriched their knowledge through the activities.

Field Trip – (2009-2010), (2013-2014)

1. Field trip to Kappalursipkod. Students visited many companies and they get more knowledge about the function of many machines.
2. Students gone to Madurai Kamaraj university and they got knowledge about energy science.

Study visit and student seminar

1. Participated in **NAAC committee peer meeting** about **Orientation and refresher course** conducted in Madurai Kamaraj University academic staff college.(2012)
2. Visited **Kalasalingam University for M.Sc project work**.(2014)
3. **Visited AyyaNadarJanakiammal college for instrumental training**.(2012)
4. Visited **Thiagarajar engineering college for student seminar** about stone cold science by Dr.Eric A. Cornel, Nobel prize Laureate in Physics.(2009)
5. Visited American college **for youth welfare seminar** about youth empowerment and release of book “Be Ambitious” by Dr.C.SylendraBabu.(2009)
6. Visited **Center for Educational Research** in Madurai Kamaraj University. (2013)
7. Visited **V.H.N. College for students related academic activities** in Virudhunagar.(2019)

Syllabus framed and modified

PG SYLLABUS

1. Electromagnetic Theory
2. Quantum Mechanics-I
3. Quantum Mechanics-II
4. Laser and nonlinear optics
5. NME – Batteries and its applications

UG SYLLABUS

1. Astronomy
2. Electromagnetism
3. Physical and laser optics
4. Electronics
5. Digital electronics

Study materials prepared for UG and PG papers

UG papers – Tamil translation

1. Skill based paper - Physics for competitive examinations (250 questions)
2. Skill based paper - Spectroscopy
3. Skilled based paper - Energy science - 1 Unit
4. Core paper - Atomic physics

PG papers

1. Classical and statistical mechanics
2. Quantum mechanics – I
3. Quantum mechanics –II
4. Laser and non linear optics

Question Bank prepared for UG papers

1. Skill based paper – Photography
2. Skill based paper – Spectroscopy
3. Skill based paper – Physics for competitive examinations
4. Basic electronics
5. Physical laser optics

Subjects handled from 2007

1. Heat and thermodynamics
2. Energy physics

3. Thermal physics
4. Basic electronics
5. Electricity & Electronics
6. Mechanics, properties of matter and sound
7. Analog and digital electronics
8. General knowledge
9. Environmental studies
10. Optics, spectroscopy and modern physics
11. Modern photography
12. Physical and laser optics
13. Physics in every day life
14. Physics for competitive examinations
15. Optoelectronics
16. Material science
17. Spectroscopy
18. Electromagnetism
19. Atomic physics
20. Nuclear physics
21. Classical and statistical mechanics
22. Quantum Mechanics-I
23. Quantum Mechanics-II
24. Laser and nonlinear optics

J.S.P.Chitra

Signature

Dr J.S.P. CHITRA
ASSISTANT PROFESSOR
DEPARTMENT OF PHYSICS
BIODATA