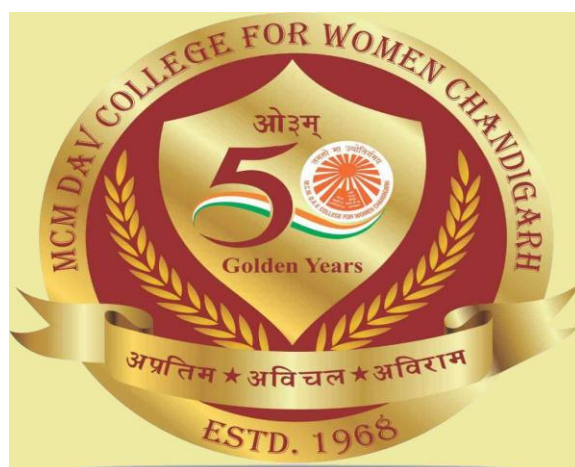


# Report of Physics Department (2021-22)



**Mehr Chand Mahajan  
DAV College for Women  
Sector-36 (Chandigarh)**

[www.mcmdavcw-chd.edu](http://www.mcmdavcw-chd.edu)

0172- 2603355, 0172- 2624921

1. Name of the Department: Physics
2. Names of Programmes/Courses offered (UG, PG, M.Phil, Ph.D, Integrated Masters etc.)
  - i. B.Sc. Non medical
  - ii. B.Sc. Vocational
  - iii. B.Sc. Physics Hons.
3. Number of teaching posts:

Permanent	
Assistant Professor	Dr. Renu Bala
Contractual	
Assistant Professors	<ol style="list-style-type: none"> <li>1. Dr. Runjun Sarma</li> <li>2. Dr. Pallavi Gupta</li> <li>3. Dr. Ishita Sharma</li> <li>4. Dr. Swati Khatta</li> <li>5. Dr. Gurjit Kaur</li> <li>6. Dr. Sandeep Kaur</li> </ol>

4. Details of Publications by the Faculty in the session: (Hard Copies of the Title Page of the Journal/Contents and First page of the Paper to be collected by the HODs)

Permanent Faculty/ Contractual faculty	Title of Paper	Title of the Journal with ISSN	Month/Year	PEER Reviewed/Refereed	UGC/CARE Enlisted (Yes/No)	URL
Contractual faculty	Novel gold nanoparticle-protein-semiconductor quantum dot hybrid system: synthesis, characterization and application in cancer cell imaging	Nanosystems: Physics, Chemistry, Mathematics	December 2021	PEER Reviewed	Yes	<a href="http://nanojournal.ifmo.ru/en/wp-content/uploads/2021/12/NPCM126P749-762.pdf">http://nanojournal.ifmo.ru/en/wp-content/uploads/2021/12/NPCM126P749-762.pdf</a>

Contractual faculty	Conjugation of curcumin with Ag nanoparticle for improving its bioavailability and study of the bioimaging response	Nanosystems: Physics, Chemistry, Mathematics	August 2021	PEER Reviewed	Yes	<a href="http://nanojournal.ifmo.ru/en/wp-content/uploads/2021/08/NPCM124P528-535.pdf">http://nanojournal.ifmo.ru/en/wp-content/uploads/2021/08/NPCM124P528-535.pdf</a>
Contractual faculty (Dr. Ishita Sharma)	Fusion dynamics of $^{16}\text{O}+^{72,76}\text{Ge}\rightarrow^{88,92}\text{Zr}$ Reactions using Skyrme Energy Density Formalism	Journal of Physics: Conference Series 1742-6596	22/04/2022	Peer Reviewed	Yes	<a href="https://iopscience.iop.org/article/10.1088/1742-6596/2267/1/012090/pdf">https://iopscience.iop.org/article/10.1088/1742-6596/2267/1/012090/pdf</a>

**5. Details of Publication of Books/Chapters in Books by the Faculty in the session (Hard Copies of the Title Page of the Journal/Contents and First page of the Paper/Book to be collected by the HODs)**

Permanent Faculty/ Contractual faculty	Title of Book	Month/ Year	Name of the Publisher	National/ International	ISBN
Dr Renu Bala	Statistical Physics I	2021	Mahindra Publishing House	National	978-93-90758-27-2
Dr Renu Bala	Statistical Physics II	2022	Mahindra Publishing House	National	978-93-90758-72-2

<b>Dr. Pallavi Gupta</b>	Condensed Matter Physics -I	May 2021	Mahindra Publishing House	National	978-93-90758-37-1
<b>Dr. Runjun Sarma</b>	Vibrations, Waves & EM Theory-I	May 2021	Mahindra Publishing House	National	978-93-90758-32-6
<b>Dr. Runjun Sarma</b>	Vibrations, Waves & EM Theory-II	Jan 2022	Mahindra Publishing House	National	978-93-90758-80-7
<b>Dr. Swati Khatta</b>	Mechanics-I	May 2021	Mahindra Publishing House	National	978-93-90758-28-9
<b>Dr. Swati Khatta</b>	Mechanics-II	Jan 2022	Mahindra Publishing House	National	978-93-90758-73-9
<b>Dr. Ishita Sharma</b>	Nuclear and Particle Physics-I	May 2021	Mahindra Publishing House	National	978-93-90758-42-5
<b>Dr. Ishita Sharma</b>	Nuclear and Particle Physics-II	Jan 2022	Mahindra Publishing House	National	978-93-90758-71-5

**6. Awards/ Recognitions received by faculty:**

<b>Name and Designation of the Faculty</b>	<b>Name of the Award</b>	<b>Name of the Agency</b>	<b>Month/Year</b>
<b>Dr. Pallavi Gupta</b>	Faculty Development Program on QUANTUM COMPUTING	IIIT Dharwad,	2021

<b>Dr. Runjun Sarma</b>	AICTE Training And Learning (ATAL) Academy Online  Elementary FDP on "Nanotechnology for Electronic and Photonic Devices (NanoDev-2021)"	Punjab Engineering College (Deemed to be University).	12-7-2021 to 16-7-2021
<b>Dr. Runjun Sarma</b>	Completed 200 hours of ICT skill course on "Course on Computer Concepts"	INFOWIZ, A Software solution, Sector 34, Chandigarh	March - May 2022

**7. List of eminent Academicians and Scientists/ visitors to the department:**

- Dr. Manas Kulkarni, Research Scientist at International Centre for Theoretical Sciences (ICTS), Bangluru delivered an educational lecture on "*Engineering Exotic States of Light and Matter*".
- Dr. Daljeet Kaur faculty at DAV University, Jalandhar talked about "*Basics of Quantum Physics and Quantum Computers*".

**Student Enrichment Programmes organized by the Department**

**8. Seminars/Conferences organized by the department in the session: Kindly include the sponsoring/funding agency:**

<b>Event: Seminar/ Conferences (National/International)</b>	<b>Date</b>	<b>Title of the Event</b>	<b>Name of the Funding Agency</b>	<b>Funds Received</b>	<b>No. of Students benefited</b>
1. Webinar	23 <sup>rd</sup> May, 2022	online webinar "Awareness on IPR, IP Management and Legal Framework	Ministry of Commerce and Industry, Government of India	---	119

2. Webinar	14 <sup>th</sup> May	online webinar <i>"Physics: Innovation-Startup-Entrepreneurship"</i>	Institutions Innovation Council (4.0), Mehr Chand Mahajan DAV College for Women	Rs. 2000/-	67
3. Webinar	24 <sup>th</sup> February 2022	Online Webinar on "Emerging Topics and Opportunities in Physical Science	MCM Vigyan Manch Sponsored by Department of Science and Technology, Chandigarh	Rs. 2000/-	73
4. Webinar	7 <sup>th</sup> March 2022	Innovation in Nanotechnology	Women Development Cell.	Rs. 2000/-	82
5. Webinar	7 <sup>th</sup> March 2022	Role of women in Science	Women Development Cell	Rs. 2000/-	82
6. Webinar	7 <sup>th</sup> January 2022	The journey of the semiconductor transistors and Moor's Law	Mehr Chand Mahajn DAV College for Women, Sector 36, Chandigarh	Rs. 2000/-	50
7. Seminar	21 <sup>st</sup> May, 2022	<i>Basics of Quantum Physics and Quantum Computers</i>	Mehr Chand Mahajn DAV College for Women, Sector 36, Chandigarh	Rs. 2000/-	153
8. Seminar	21 <sup>st</sup> May, 2022	<i>Engineering Exotic States of Light and Matter</i>	Mehr Chand Mahajn DAV College for Women, Sector 36, Chandigarh	Rs. 2500/-	153

**17. Skill-based Workshops/ Extension Lectures/Panel Discussions organized by the department in the session:**

<b>Title of the Workshop/ Extension Lectures/Panel Discussions</b>	<b>Date</b>	<b>Objective</b>	<b>No. of Students benefitted</b>
Collage making competition	14 <sup>th</sup> December 2021	Save Energy, Save Future	35

Poster Making	14 <sup>th</sup> May 2022	Physics in everyday life	
Essay Writing	14 <sup>th</sup> May 2022	Women in Science	
Physics Quiz	14 <sup>th</sup> May 2022	Fundamentals of Physics & Science	
Power Point presentations	14 <sup>th</sup> May 2022	Indian Scientists and their contributions	
Innovative Working Models	17 <sup>th</sup> May 2022	----	
Scientific Rangoli	21 <sup>st</sup> May 2022	-----	

**Projects/ Awards/Positions bagged by students:**

Event	1 <sup>st</sup> position	2 <sup>nd</sup> Position	3 <sup>rd</sup> position	Consolidated	Class
Poster making	Aditi	Samridhi	Jashanpreet Kaur	-	B.Sc. I (NM)
Essay writing	Avneet	Ashneet	Harshdeep	-	B.Sc. I (Voc)
Physics Quiz	Shruti, Harsha Saini, Preeti, Farhat Khan	Tamanna, Jahnvi, Kamanshi	Simran Kaur, Pooja, Rizul Singla, Aditi Aggarwal, Diksha	-	B.Sc. II (NM)
PPT making	Tushar	Manya	Kavita	-	B.Sc. II (Voc)
Innovative working model	Supreet Kaur, Harsimran, Ravneet, Isha Gupta	Isha, Tanya, Anjali, Garima	Arushi, Dainty, Harneet, Khushboo	Annaya, Yukta, Aditi, Varnika, Mehaknoor, simran, bhavna, nitika, Komoljoot	B.Sc. III (NM)
Rangoli Making	Gurnoor, Aditi, Mansi	Ritika, Ramanpreet	Tanu, Navneet, Sakshi	-	B.Sc. III (Voc)