



# Mehr Chand Mahajan DAV College for Women Sector 36-A, Chandigarh (U.T.)

## Progress Report for Star College Scheme (Session 2017-18)

Submitted to

Department of Biotechnology  
Ministry of Science and Technology, Govt. of India



# *MCM DAV College for Women*

## *AN INSTITUTION PAR EXCELLENCE*

*MCM DAV College for Women – an institution which has carved a niche for itself in the national academic circles, has become a definitional as an institution that caters not only to the educative and scholarly development of its stakeholders but also promises a well – rounded and holistically progressive future for them. Founded in 1968 to commemorate the exemplary contribution of Justice Mehar Chand Mahajan, Ex-Chief Justice of India and former Prime Minister of Kashmir, the college has been a seat of learning to reckon with. Be it academics, sports or cultural and social activities, the college has been an invincible victor. The secret behind this story of success abounding is the strong foundation of the college, which exudes the core values of our culture and tradition and is still open to absorbing the changes that come our way in the fast moving world around us. The college is a rare example of a temple of learning that not only maintains the value-system of the yester years, but also creates a way to organically involve in it the ever- changing scenarios of the global world, with its technological and business demands.*

# *Acknowledgement*

*We greatly acknowledge that the facilities provided under the STAR College scheme in the pursuit of excellence has been proved very beneficial for the MCM DAV College for Women, Chandigarh in taking one more step towards implementing your objective to provide academic and physical infrastructure for achieving excellence in teaching and unique exposure of students to experimental science.*

*The STAR College scheme provide us a great platform in combining and imparting scientific as well as holistic education to the students. The grant provided under the scheme enabled the institute to emphasized more on practical training to students by providing specialized infrastructure and consumables. Well-equipped modern laboratories, library, teaching aids, and other training facilities in our college, helped us in enhancing scientific interest among the students and also in promoting research based learning at undergraduate level in the college.*

*The provided opportunities under the scheme to learn from stalwarts, visits to nearby institutes and universities, workshops, seminars and various other forums, helped us in improving critical thinking and substantial increase in the percentage of "hands on" experimental work among the students. This scheme has been proved equally beneficial for the students and the teachers, as it helped us in scaling up the skills of the teachers by organising different faculty programs.*

*Star College scheme proved a great opening for the students as it equipped them with the modern research methodologies techniques, innovative minor research projects and the skills for their professional growth. The scheme has a significant positive impact on the students' awareness about the scientific research, methodologies and their implementation. The scheme has armed us to promote and increase our efforts in disseminating quality learning scientific knowledge with the special emphasis on the practical training and also to provide access and exposure to students to modern research laboratories and industries in the country.*

*Dr. Nisha Bhargava  
Principal*



# Contents

S. No	Contents	Page No.
I.	Name of Departments supported and their Coordinators	
II.	<b>Annexure –I:</b> <ol style="list-style-type: none"> <li>1. Name of the College:</li> <li>2. Status(Govt./ Govt. Aided/ Autonomous/Pvt)</li> <li>3. Women’s College or Co-educational</li> <li>4. Urban/Rural</li> <li>5. No. of departments supported</li> <li>6. NAAC Ranking + Year</li> <li>7. Details of extramural funding received in the last 3 years</li> </ol>	
<b>III. Quantitative data (Submitted by all departments in the order: Department of Food Science, Chemistry, Botany, Physics and Zoology)</b>		
8.	No. of applicants vs No. of seats in each department	
9.	Number of students admitted year wise in different courses supported under the Star College Scheme	
10.	Change in the cut off percentage/admission	
11.	Change in the dropout rate	
12.	Data on pass percentage (UG level)	
13.	Data on how many students opted for PG courses	
<b>IV. Qualitative data (Submitted by all departments in the order: Department of Food Science, Chemistry, Botany, Physics and Zoology)</b>		
14.	List of additional practicals introduced	
15.	List of minor projects implemented, name of students and supervisor	
16.	Faculty improvement activities such as training courses, seminars etc. conducted and their impact	
17.	Outreach activities conducted and their impact/ follow-up	

18.	Any outstanding achievement by student/faculty (merit, award, research paper, presentation in national/international conference/ etc.; full citation to be provided)	
19.	List of Short term training courses/workshops conducted for students and faculty, including title, duration, no. of beneficiaries	
20.	Guest Lectures (details like name of scientist, topic, no. of students)	
21.	Visits to industries, institutes etc. (name of place, duration of visit and no. of students)	
22.	List of Lab manuals/SOPs generated for all participating departments	
23.	Feedback mechanism adopted	
24.	Any special innovative approach adopted by the college in improving the UG education	
25.	A summary on “how the Scheme helped in strengthening of the UG education and what would not have been possible without this”	
26.	Suggestions/feedback for improving the scheme	
ANNEXURE-II: B.Sc. MFT I <sup>st</sup> Year (2017-18)		
ANNEXURE-III: B.Sc. MFT II <sup>nd</sup> Year (2017-18)		
ANNEXURE-IV: B.Sc. MFT III <sup>rd</sup> Year (2017-18)		
ANNEXURE-V: B.Sc. Ist Year Medical (2017-18)		
ANNEXURE-VI: B.Sc. II <sup>nd</sup> Year Medical (2017-18)		
ANNEXURE-VII: B.Sc. III <sup>rd</sup> Year Medical (2017-18)		
ANNEXURE-VIII: B.Sc. MFT - Workshop on Start-Up Stand-up for Potential Young Entrepreneurs (2017-18)		
ANNEXURE-IX: B.Sc. MFT - Workshop on ‘Awareness Generation and Dissemination of Knowledge and Skills about Recent Advances in Nutrition and Food Safety		

ANNEXURE- X: B.Sc. MFT - Production of functional Bio-molecules from Probiotic bacteria (2017-18)
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ANNEXURE-XI: B.Sc. (MFT) - Entrepreneurship Development Programme (2017-18)
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## *I. Name of the departments supported*

*Department of Food Science*

*Dr. Geeta Mehra*

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*Department of Chemistry*

*Dr. Shefali Dhiman*

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*Department of Botany*

*Dr. Purnima Bhandari*

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*Department of Physics*

*Dr. Renu Bedi*

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*Department of Zoology*

*Dr. Neetu*

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*Overall coordinator (Member Secretary)*

*Dr. Geeta Mehra*

*Asst. Professor Deptt. Of Food Sc.*

*Cell No. 9815638247*

*Fax No. 2613047*

*Email: [mails4geeta@gmail.com](mailto:mails4geeta@gmail.com)*

## *Annexure –I*

1. **Name of the College:** MCM DAV College for Women, Sector 36-A, Chandigarh.
2. **Status (Govt./ Govt. Aided/ Autonomous/Pvt):** Govt. Aided
3. **Women's College or Co-educational:** Women's College
4. **Urban/Rural:** Urban
5. **No. of departments supported:** 05
6. **NAAC Ranking + Year:** Re-accredited "A" GRADE BY NAAC (2016)
7. **Details of extramural funding received in the last 3 years (UGC, DBT, DST; duration, period and amount):**

Grant of Rs. 93 lakhs received, for a period of three years (2016-2019) under Star College Scheme, from Department of Biotechnology, Ministry of Science and Technology, Government of India.

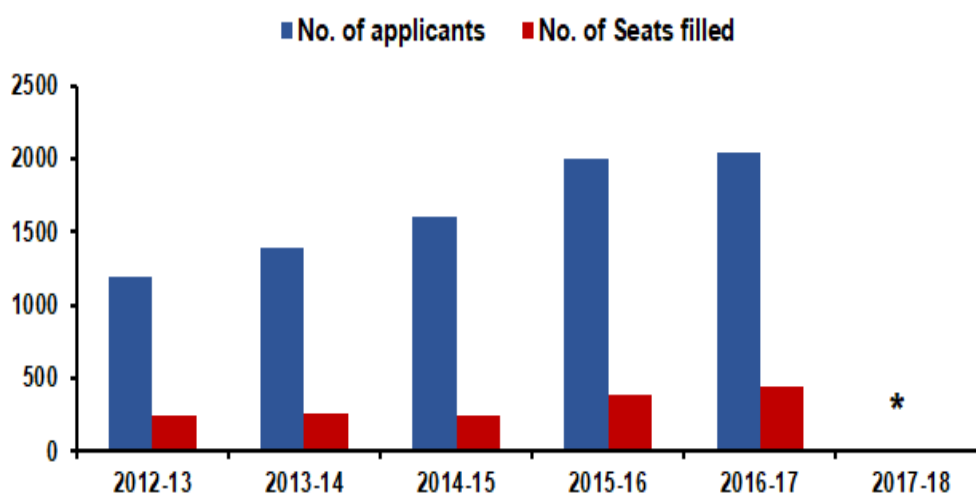


### *III. Quantitative data (Submitted by all departments)*

#### **8. No. of applicants vs. No. of seats in each department**

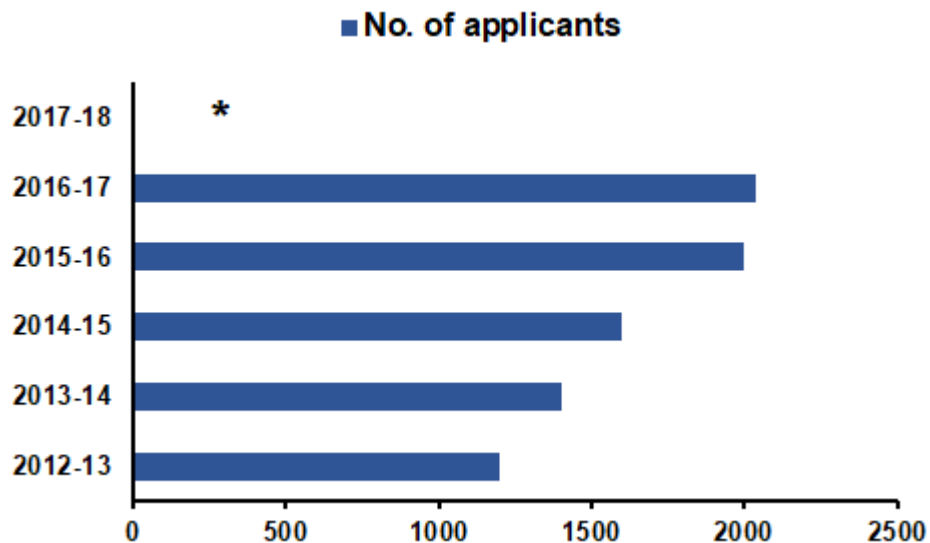
There is no fixed number of seats. Seats are filled according to the infrastructure availability. However, in case of MFT course, fixed number of seats (n=70) are filled.

Year	No. of applicants	No. of Seats filled
2012-13	1200	244
2013-14	1400	259
2014-15	1600	252
2015-16	1999	384
2016-17	2040	441
2017-18	Centralized Counselling*	334



Centralized Counselling\*

Year	No. of Applicants
2012-13	1200
2013-14	1400
2014-15	1600
2015-16	1650
2016-17	1700
2017-18	Centralized Counselling*

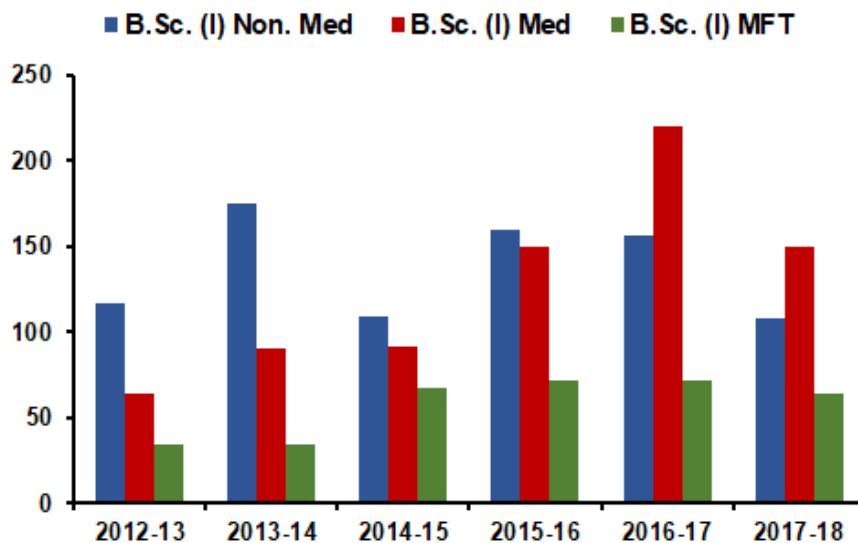


Centralized Counselling\*

**9. Number of students admitted year wise in different courses supported under the Star College Scheme**

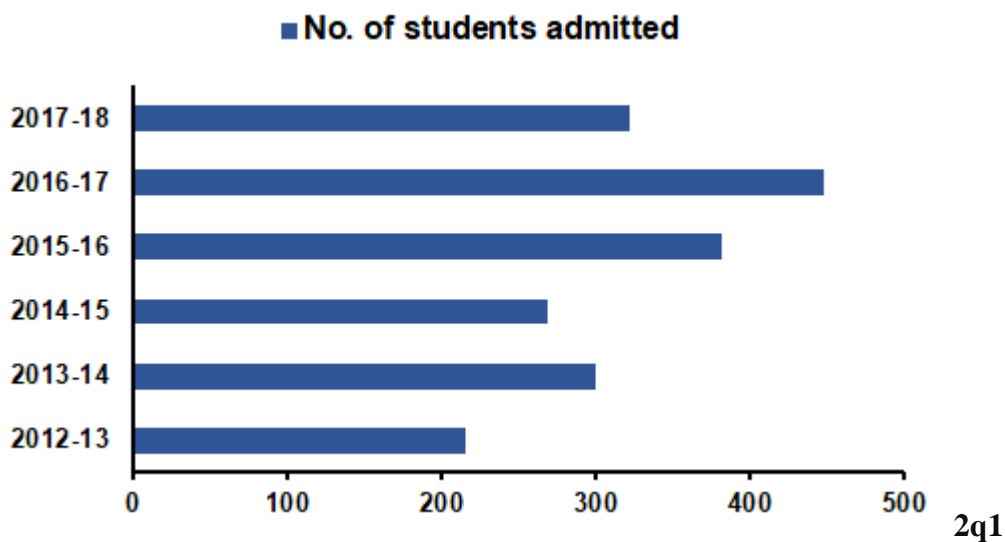
Year	No. of students admitted in different courses		
	B.Sc. (I) Non. Med	B.Sc. (I) Med	B.Sc. (I) MFT
2012-13	117	64	35
2013-14	175	90	35
2014-15	109	92	68
2015-16	160	150	72
2016-17	157	220	72
2017-18	108	150	64

\*All passed students of I<sup>st</sup> and 2<sup>nd</sup> year are admitted to 2nd and 3rd year respectively under same course.



\*All passed students of 1<sup>st</sup> and 2<sup>nd</sup> year are admitted to 2<sup>nd</sup> and 3<sup>rd</sup> year respectively under same course.

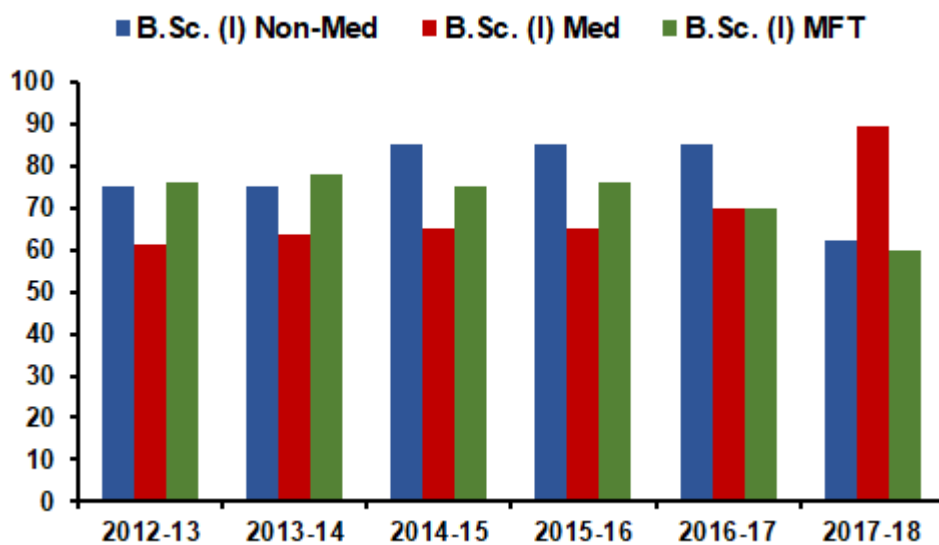
Year	No. of students admitted in different courses
2012-13	216
2013-14	300
2014-15	269
2015-16	382
2016-17	449
2017-18	322



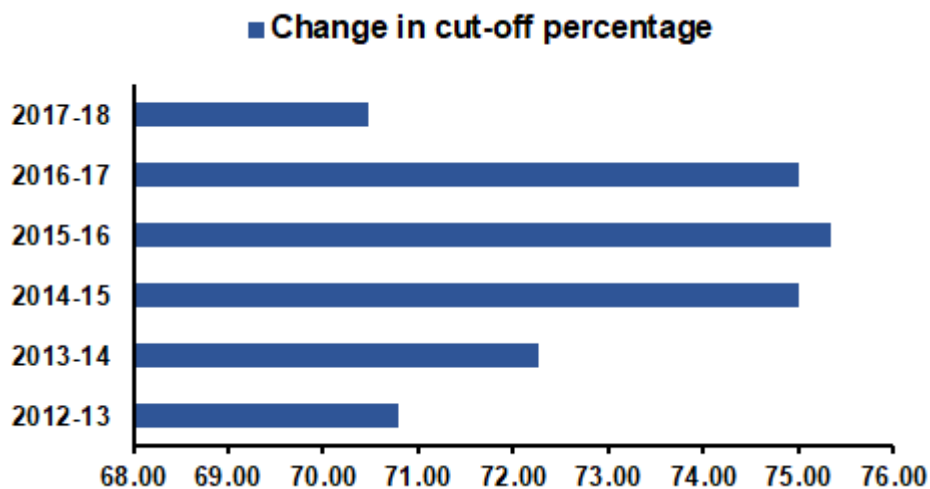
**10. Change in the cut off percentage/admission in different courses:**

Year	Cut- off percentage/admission in different courses		
	B.Sc. (I) Non Med	B.Sc. (I) Med	B.Sc. (I) MFT
2012-13	75	61.4	76
2013-14	75	63.8	78
2014-15	85	65	75
2015-16	85	65	76
2016-17	85	70	70
2017-18	62	89.4	60

\*All passed students of 1<sup>st</sup> and 2<sup>nd</sup> year are admitted to 2<sup>nd</sup> and 3<sup>rd</sup> year respectively under same course.

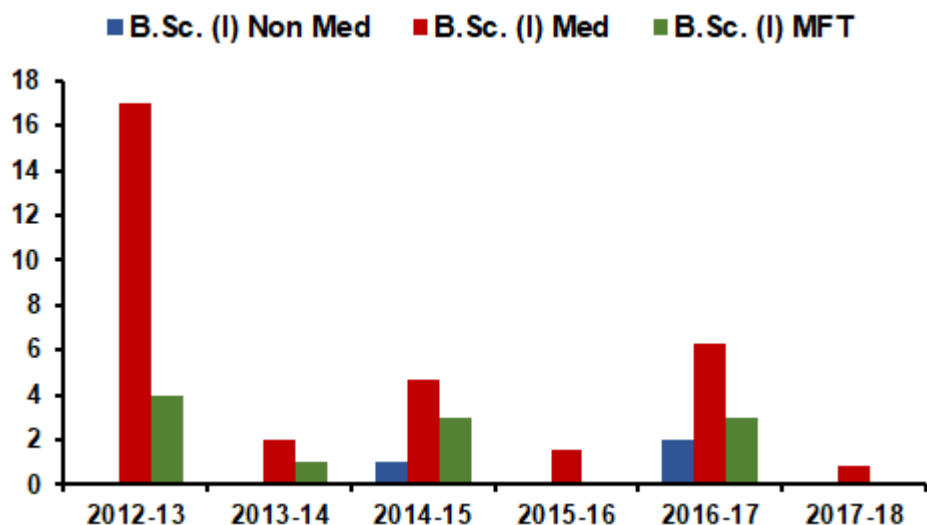


Year	Change in cut-off percentage
2012-13	70.80
2013-14	72.27
2014-15	75.00
2015-16	75.33
2016-17	75.00
2017-18	70.47

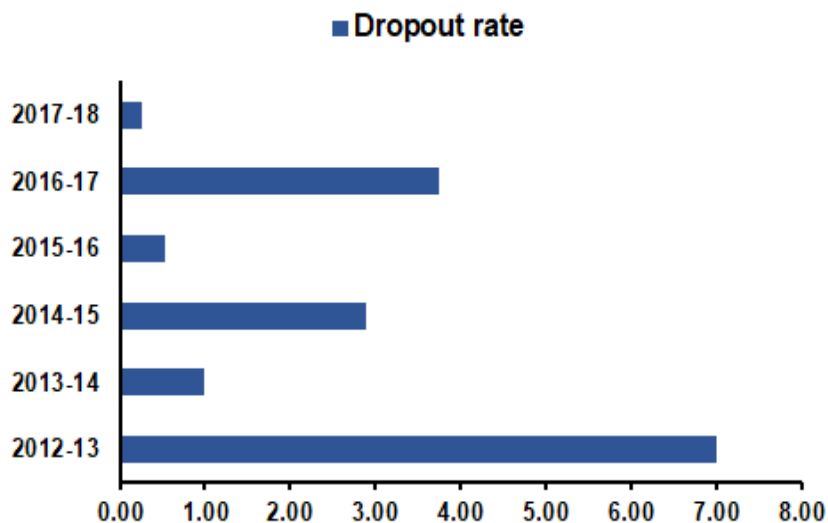


## 11. Change in the dropout rate

Year	Dropout in different courses		
	B.Sc. (I) Non Med	B.Sc. (I) Med	B.Sc. (I) MFT
2012-13	0	17	4
2013-14	0	2	1
2014-15	1	4.68	3
2015-16	0	1.58	0
2016-17	2	6.25	3
2017-18	0	0.8	0

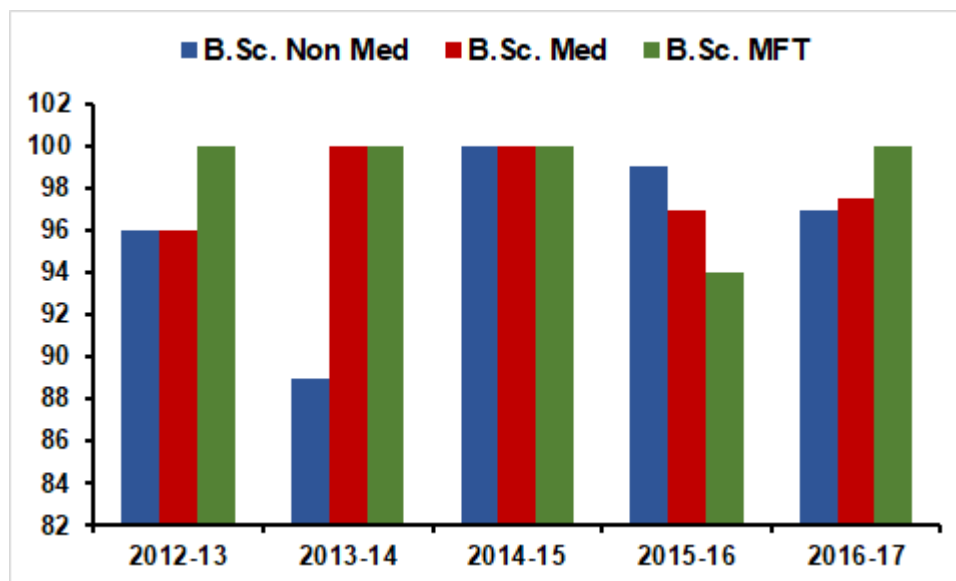


Year	Change in Dropout Rate
2012-13	7.00
2013-14	1.00
2014-15	2.89
2015-16	0.53
2016-17	3.75
2017-18	0.27

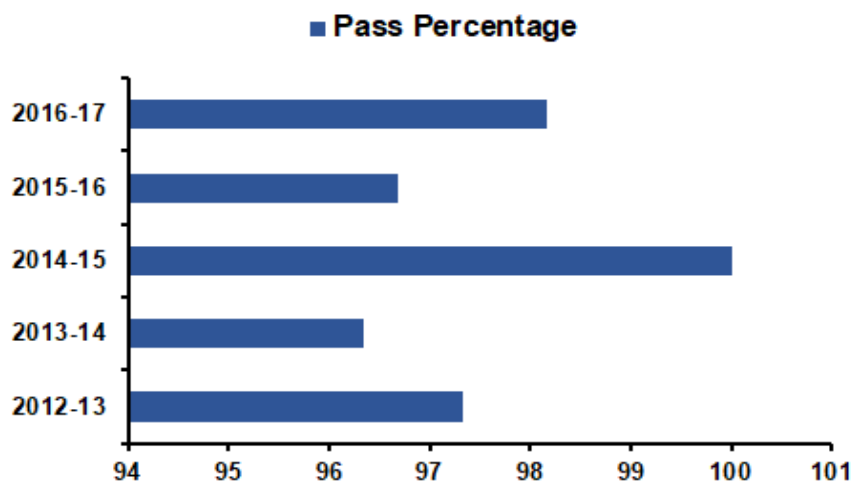


## 12. Data on pass percentage

Year	B.Sc. Non Med	B.Sc. Med	B.Sc. MFT
2012-13	96	96	100
2013-14	89	100	100
2014-15	100	100	100
2015-16	99.07	97	94
2016-17	97	97.5	100



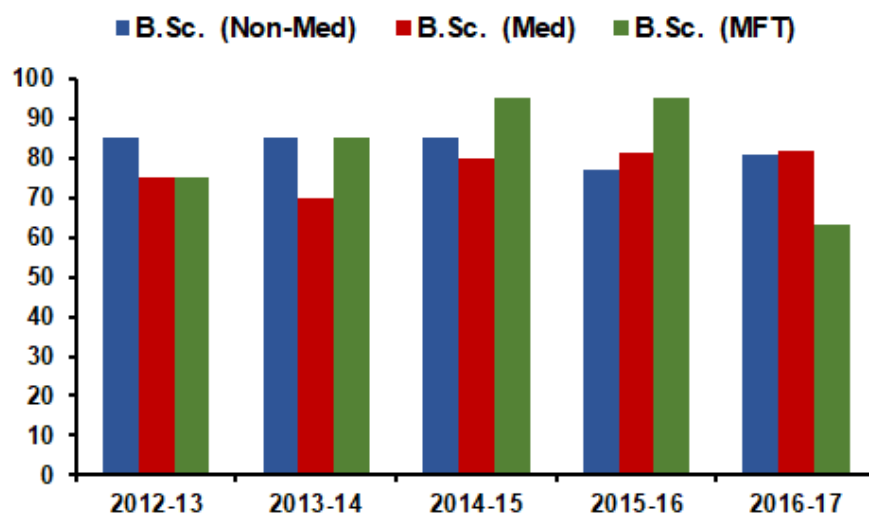
Year	Pass Percentage
2012-13	97.58
2013-14	97.37
2014-15	98.22
2015-16	98.56
2016-17	100



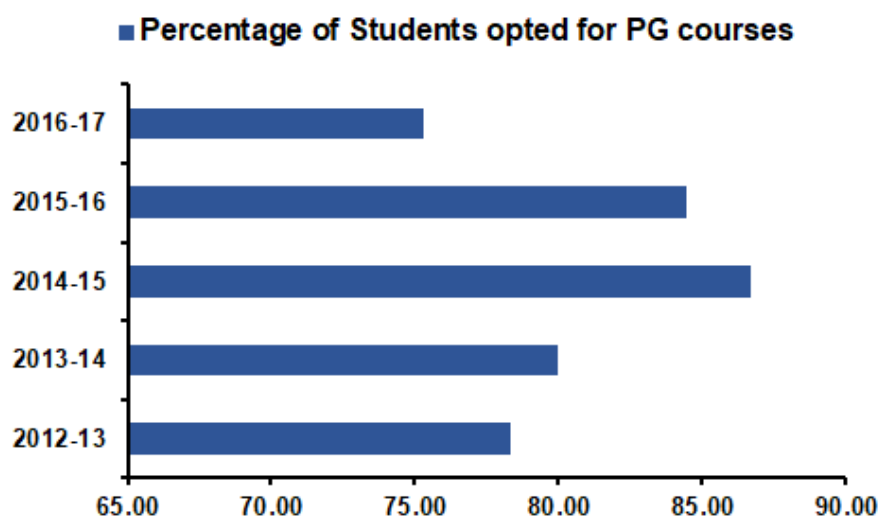


13. Data on how many students opted for PG courses

Year	Percentage of students opted for PG courses		
	B.Sc. (Non-Med)	B.Sc. (Med)	B.Sc. (MFT)
2012-13	85	75	75
2013-14	85	70	85
2014-15	85	80	95
2015-16	77	81.4	95
2016-17	81	81.9	63



Year	Percentage of Students opted for PG courses
2012-13	78.33
2013-14	80.00
2014-15	86.67
2015-16	84.47
2016-17	75.30



## *IV. Quantitative Data (Submitted by all Departments)*

### **14. LIST OF ADDITIONAL PRACTICALS INTRODUCED (2017-18)**

#### **Department Of Food Science:**

##### **B.Sc (Microbial & Food Technology) – I<sup>st</sup> Year (64 students) [Annexure II]**

1. Solubility and barfoed test added for qualitative estimation of carbohydrates.
2. Qualitative test for proteins in food samples.
3. Estimation of carotenoids as  $\beta$ -carotene in different food samples.
4. Estimation of lycopene content in different food samples.
5. To demonstrate the motility of organism by soft agar method.
6. To study the colony morphology of different bacterial and fungal isolates
7. To quantify the bacterial load by drop method.

Faculty members involved were Dr. Geeta Mehra, Dr. Vandana Sharma, Dr. Sandeep Kaur, and Dr. Sucheta

##### **B.Sc (Microbial & Food Technology) – II<sup>nd</sup> Year (59 students) [Annexure III]**

1. Cut-out analysis of canned food products.
2. Curcumin content in curcumin powder sample.
3. Separation of dyes by column chromatography.
4. Comparison of nutrient and minimal media to study mutations.
5. To study repair mechanisms after exposure to U.V radiations.
6. Isolation of DNA from *Staphylococcus* using lysozyme enzyme.

Faculty members involved were Dr. Geeta Mehra, Dr. Sandeep Kaur, Dr. Ruchi Chauhan, Dr. Bindu.

##### **B.Sc (Microbial & Food Technology) – III<sup>rd</sup> Year (66 students) [Annexure IV]**

1. Isolation of amylase producing bacteria from compost samples. Isolation of protease producing bacteria from vermicompost samples.
2. Isolation of cellulase producing bacteria from degraded wood samples.
3. Estimation of TS, TDS and TSS from sewage samples.
4. BOD measurement of tertiary treated and sewage treatment plant water samples.
5. COD measurement of tertiary treated and sewage treatment plant water samples.
6. Detection of coliforms by MPN method in tertiary treated water samples.

Faculty members involved were Dr. Geeta Mehra, Dr. Vandana Sharma, Dr. Ruchi Chauhan, Dr. Bindu

**Department of Chemistry:**

S.No.	Title	Class	No. of students
1.	Volumetric estimation of strength of NaOH solution of unknown concentration using standard acid solution.	B.Sc I	290
2.	Preparation of primary standard of (N/10 Oxalic acid) for standardization of secondary solution.	B.Sc I	290
3	Study of effect of dilution on viscosity (2.5%, 5%, 10% solution of Glycerol).	B.Sc I	290
4.	Determination of percentage of $\text{Ca}^{2+}$ ions from a sample of chalk by back titration method.	B.Sc II	296
5.	Comparison of hardness of water from different areas around tricity (Chandigarh, Panchkula and Mohali).	B.Sc II	296
6.	Determination of melting point of different organic compounds synthesized in lab.	B.Sc III	296
7.	Conductometric titration of weak acid (Acetic acid) with strong base (NaOH) and determination of ionization constants of weak acid.	B.Sc III	296
8.	Comparison of saponification/Iodine value of oils extracted from different seeds (Groundnut, Linseed, and Mustard Oil).	B.Sc III	296
9.	Structure elucidation of the synthesized organic compounds by IR and NMR spectroscopy.	B.Sc III	296

**Department of Botany:**

S. No.	Title	Number of beneficiaries	Names of Students	Year	Name of Teacher/(s) involved
1.	To calculate the mitotic index of the given sample	125 B.Sc. I (Medical)	Annexure-V	2017-18	Dr. Jasleen Kaur Dr. Gunjan Sud Dr. Geetika Singh
2.	To determine the soil pH of the different samples by the pH paper method				Dr. Jasleen Kaur Dr. Gunjan Sud Dr. Geetika

					Singh
3.	Demonstration of Spread plating and streaking methods of bacteria	125 B.Sc. I (Medical)	Annexure-V	2017-18	Dr. Purnima Bhandari Dr. Vandana Sharma
4.	To study morphology of leaf	124 B.Sc. II (Medical)	Annexure - VI	2017-18	Dr. Gunjan Sud
5.	To study types of inflorescence in campus plants				
6.	Permanent slide preparation as well as comparative study of monocot and dicot	124 B.Sc. II (Medical)	Annexure-VI	2017-18	Dr. Purnima Bhandari
7.	Demonstration of the use of vertical laminar flow, autoclave and pH meter	124 B.Sc. II (Medical)	Annexure-VI	2017-18	Dr. Purnima Bhandari Dr. Jasleen Kaur
8.	Comparative analysis of presence of proteins in sample of five different families.	118 B.Sc. III (Medical)	Annexure-VII	2017-18	Dr. Purnima Bhandari Dr. Geetika Singh Dr. Aditi Shreeya Bali
9.	Demonstration of the use of spectrophotometer				
10.	Estimation of Chlorophyll content in the different plant species.				
11.	To study seed germination in 5 different species of leguminosae family	118 B.Sc. III (Medical)	Annexure-VII	2017-18	Dr. Geetika Singh Dr. Aditi Shreeya Bali
12.	To calculate the diameter of trees growing in a given area				
13.	To calculate frequency of species in a given area by quadrat method				

**Department of Physics:**

Sr. No.	Classes	Title	No. of students	Session	Teachers involved
1.	B.Sc (I)	<b>1. Arduino Night Security Alarm</b> This project is concerned with motion sensing arduino alarm using a passive infrared sensor and an Arduino microcontroller.	20	2017-18	Dr. Renu Bedi Ms. Poonam Jain
		<b>2. Bluetooth controlled Robot</b> The android application controlled robot communicates via mobile Bluetooth to the Bluetooth module present on the robot. While pressing each button on the application, corresponding commands are sent via Bluetooth to robot.	20	2017-18	Ms. Poonam Jain Ms Raman Chadha
		<b>3. Bluetooth Home Automation</b> It is based on wireless Bluetooth technology used to control home electronic appliances through the android phones	20	2017-18	Dr. Yogita, Dr. Renu Bala
		<b>4. Dual tone Multi functioning Robot (DTMF)</b> DTMF controlled Robot runs over mobile. This technology exists in Dial Tone i.e. adding or	20	2017-18	Dr. Yogita, Dr. Renu Bala

		mixing two or more frequencies generate DTMF Tone.			
2.	B.Sc. (II)	<p>1. DTMF Home Automation It is used to control home appliances wirelessly. This project also works over mobile DTMF technology that exists in dial tone.</p> <p>2. Line Follower It is an autonomous robot which follows either black line in white area or white line in black area.</p>	20  20	2017-18  2017-18	<p>Ms. Meetika, Ms. Rimple</p> <p>Dr. Kirandeep, Ms. Shifali</p>
3.	B.Sc. (III)	<p>1. Light with remote control The brightness of the room lights can be adjusted with the help of this simple remote based technique.</p> <p>2. Electronic Voting machine (EVM) EVMs run on an ordinary 6 Volt alkaline battery manufactured by Bharat Electronics Ltd., Bangalore and Electronic Corporation of India Ltd., Hyderabad. With this technique, it can be operated in the area with no power supply.</p> <p>3. To study Poisson and Gaussian distributions using a GM Counter.</p> <p>4. To study absorption of gamma rays in Pb and Fe absorbers.</p>	20  20  27  27  27	2017-18  2017-18  2017-18  2017-18  2017-18	<p>Dr. Yogita, Dr. Kirandeep</p> <p>Dr. Renu Bala, Ms. Meetika</p> <p>Dr. Yogita, Dr. Renu Bala</p> <p>Dr. Kirandeep, Dr. Renu Bala</p> <p>Dr. Yogita, Dr.</p>



		5. To design an Astable multivibrator of given specifications using 555 Timer IC.	27	2017-18	Renu Bala
		6. To study logic gates and clocked JK Master-Slave flip flops using IC's.	27	2017-18	Dr. Yogita, Dr. Kirandeep
		7. To measure resistivity of semiconductor at different temperatures using four probe method and the deduce band gap of the semiconductor.			Dr. Yogita, Dr. Renu Bala

#### Department of Zoology:

Title	Number of Students	Names of Students	Names of teachers involved
1. To isolate midgut from mosquito larvae for genotoxicity studies. 2. To cut thin sections of processed tissues 3. To perform Haematoxylin & Eosin staining of a given slide 4. To sterilize the laboratory apparatus 5. Determination of protein concentration 6. To study the process of centrifugation. 7. To separate coagulated milk from mixture of fresh milk and acetic acid by centrifugation. 8. To determine the relationship of speed of centrifugation with the coagulation of milk which separates from mixture 9. To isolate DNA from fruit flies 10. To study the principle and process of Agarose gel electrophoresis of genomic DNA 11. To study the principle and process of SDS polyacrylamide gel electrophoresis of protein samples	118 B.Sc. III (Medical)	Annexure-VII	Dr. Neetu Dr. Sarabjeet Dr. Radhika Dr. Harpreet
12. To study taxonomic characters of mosquito larvae 13. To test cell viability using Trypan blue exclusion method	124 B.Sc. II (Medical)	Annexure-VI	Dr. Neetu Dr. Sarabjeet

14. To study the life cycle of <i>Drosophila melanogaster</i> 15. To study food preferences of <i>Drosophila</i> 16. To study the effect of temperature on oviposition in <i>Drosophila</i> 17. To isolate salivary glands from <i>Drosophila</i> larvae for the study of polytene chromosomes. 18. To study the principle and process of DNA Amplification, Southern Blotting, Western Blotting and Northern Blotting. 19. Use of taxonomical keys to identify insects of various orders.			Dr. Ravneet
20. Sketching of microscopic objects using Camera lucida. 21. Measurement of microscopic objects using oculometer and stage micrometer. 22. To study various ICZN categories, Scheduled and non- scheduled list of animals. 23. Study of at least 3 endangered or threatened wild animals of India through photographs, specimens and models. 24. Exercise on mean, median and standard deviation, Tests of statistical significance.	125 B.Sc. I (Medical)	Annexure-V	Dr. Neetu Dr. Harpreet Dr. Radhika Dr. Ravneet

## 15. LIST OF MINOR PROJECTS IMPLEMENTED, NAME OF STUDENTS AND SUPERVISOR

### Department of Food Science:

S. No.	Student's Name	Roll No.	Research Project	Faculty Supervisor
1.	Navya, Simran, Chetansi, Aastha	4964, 4972, 4968, 4976	Study of flowers for their flavonoids, total phenols, tannin levels and antioxidant activity	Dr.Geeta Mehra
2.	Palak, Simran Nagrani, Simran Saini, Ravneet	4921, 4928, 4903, 4927	Study of fresh and commercial fruit juices for their flavonoids, total phenols, pH acidity, TSS, fructose content, tannin levels and antioxidant activity	Dr.Geeta Mehra
3	Sanveer, Dipti,	4907 4933,	Proximate and Physicochemical analysis of	Dr.Geeta Mehra

S. No.	Student's Name	Roll No.	Research Project	Faculty Supervisor
	Dibjot	4941	cereals. Pseudocereals and Millets	
4	Prashasti and Saima	4961 4965	Isolation and characterization of alkaliphilic fungi and its effect on geomaterial.	Dr. Vandana
5	Prerna and Vaishnavi	4908 4913	Isolation and characterization of alkaliphilic bacteria for biofilm production.	Dr. Vandana
6	Ankita and Ramandeep	4974 4952	Isolation of bacteria from compost and vermicompost samples producing cocktail of enzymes.	Dr. Vandana
7	Jasleen and Aanchal	4983 4946	Isolation of plant pathogens and their control.	Dr. Vandana
8	Meera and Bharti	4904 4945	A study on hygienic conditions kept in home refrigerators	Dr. Vandana
9	Prabhleen, Nikita Kundu, Vaani Angra	4935, 4938, 4956	Optimisation of Mushroom Cultivation from Domestic waste	Dr. Sandeep Kaur
10	Tejroop and Ritika	4937 4918	Effect of Probiotics on mental health	Dr. Sandeep Kaur
11	Simran and Abhiruchi	4903 4911	Role of microbes in environmental sustainability	Dr. Sandeep Kaur
12	Aditi Sharma, Aditi Chauhan	4932 4943	Eucalyptus oil extraction and study of its anti-biofilm potential against <i>P.aeruginosa</i>	Dr. Sandeep Kaur
13	Sumehar, Nitika	4906 4912	Anti-biofilm effect of eucalyptus oil against <i>S.aureus</i>	Dr. Sandeep Kaur
14	Navreen Kaur, Ananya	4907 4985	Importance of nutrigenomics in food	Dr. Ruchi Chauhan

S. No.	Student's Name	Roll No.	Research Project	Faculty Supervisor
15	Vasavi Sood, Divya	4960 4980	Microbial fuel cells	Dr.Ruchi Chauhan
16	Twinkle, Dharna	4931 4954	A study on prevalence of microorganisms on toilet door handles	Dr.Ruchi Chauhan
17	Sukhleen, Jasmine	4942 4947	A study on microbiological quality of sliced fruits sold at road side in Chandigarh	Dr.Ruchi Chauhan
18	Ramandeep, Jaspreet, Sumedha	4979, 4929, 4906	A study on mushroom cultivation from vegetable and fruit wastes	Dr.Ruchi Chauhan
19	Aishwarya, Jasmine K. Cheema, Vaishali	4902, 4901, 4955	Awareness or willingness of consuming organic food in Chandigarh-are we eating clean and green?- a survey	Dr.Sucheta
20	Panvi, Riya	4950, 4978	Antimicrobial behavior against newer methods of food processing	Dr.Sucheta
21	Manika Jaryal, Ritika	4973, 4918	Optimization of osmotic dehydration of kinnow peel and their shelf study	Dr.Sucheta
22	Kanika, Amanjot Kaur, Anjali, Tanvi	4967, 4957, 4962, 4984	Evaluation of antioxidant activity of fresh and dried fruits locally consumed in Chandigarh	Dr.Sucheta
23	Isshu, Priyanka, Sanya	4949, 4944, 4940	Angle of repose and coefficient of friction measurement machine designing (Instrumentation)	Dr. Bindu
24	Avni, Saakshi, Rathi, Neha	4977, 4966, 4970	To prepare mead from various sources for honey and their characterization	Dr. Bindu
25	Ashmita, Rashmi	4975, 4986	Preparation of edible cutlery from pseudo cereals.	Dr. Bindu

S. No.	Student's Name	Roll No.	Research Project	Faculty Supervisor
26	Navpreet, Jasmine Kaur Multani, Vajayanti Dagar	4936, 4905, 4919	Preparation of edible films from protein source and their application of seasonal fruits.	Dr. Bindu
<b>Interdisciplinary Research Projects with Dept. of Botany [Annexure-VI]</b>				
27.	Ramandeep Kaur Virk, Dipti, Sanya ,Panvi	4952, 4933, 4940, 4950	Aqueous eucalyptus extract :an eco-friendly substitute for chemical disinfectants	Dr.Vandana, Dr.Purnima
28	Manika	4973	Effect of neem and eucalyptus extracts on coliforms isolated from local soda drinks	Dr.Vandana, Dr.Purnima
29.	Nitika, Aanchal, Akshima	4912, 4946, 4948	Antimicrobial potential of Eucalyptus extract against <i>S.aureus</i>	Dr.Sandeep, Dr.Purnima
30.	Simran Sharma, Simran Saini, Palak Soni, Rashmi, Jasmine Multani	4922, 4903, 4921, 4986, 4905	Role of coenzyme in bioremediation of polluted sewage water	Dr.Vandana, Dr.Shefalli
31.	Avni, Sakshi	4977, 4966	Effects of coenzyme on physico-chemical parameters of beverage industrial waste	Dr.Vandana, Dr.Shefalli,

**Department of Chemistry:**

S.No.	Name of the student	Name of the Supervisor and institution	Topic of project
1.	Vishruti Sharma	UGC-DAE Cosotium for Scientific research, Indore	Summer Training
2.	Sakshi Kumari	UGC-DAE Cosotium for Scientific research, Indore	Summer Training

3.	Yashasvi	Dr. Arijit Kumar De, IISER Mohali	Synthesis and characterization of Cd-Se Quantum Dots for solar cells application
4.	Namrata Rana	Dr. Anshuman Roy Choudhary, , IISER Mohali	Organic synthesis (Trisubstituted Triptycene)
5.	Nancy	DR. Arijit Kumar De, IISER Mohali	Synthesis and characterization of CdSe Quantum Dots for solar cells application
6.	Aanchal Bhalla	1. Dr Santanu Kumar Pal, IISER Mohali  2. Dr. Deepak Salunke, Panjab University Chandigarh	Synthesis of discotic liquid crystals  Synthesis of protected alcohol amines using lewis acid catalysts
7.	Navpreet Kaur	Dr. Santanu Kumar Pal, IISER Mohali	Synthesis of climatic liquid crystals
8.	Arpita	1. Dr. Santanu Kumar Pal, IISER Mohali 2. Dr. S.K. Mehta, Panjab University Chandigarh	Synthesis of climatic liquid crystals  Basics of Fluorescence Spectroscopy and its mechanisms (PCT, PET and FRET)
9.	Bharti Sharma	Dr. Santanu Kumar Pal, IISER Mohali	Synthesis of climatic liquid crystals
10.	Abhilasha	1. Dr. Debashis Adhikari, IISER Mohali 2. Dr. S.K. Mehta, Panjab University Chandigarh	Inorganic synthesis of small activated molecules  Graphene and its Composites
11.	Tanvi Pathania	Dr. Sanjay Singh, IISER Mohali  Dr. S.K. Mehta, Panjab University Chandigarh	Synthetic aspects of chemistry while working in the area of P/N macrocycles , and characterization of samples ( NMR and IR) Niosome formulation as drug delivery vehicle



12.	Kamalpreet Kaur	Netsparked Infotech, Mohali	Summer Internship in Industry
13.	Nancy Chahal	Dr. Arijit Kumar De, IISER Mohali	Synthesis and characterization of Quantum Dots
14.	Naindeep	Dr. Shweta Sharma, Panjab University Chandigarh	Screening Test of Toxic Plants

**Department of Botany:**

*Departmental projects*

S.No.	Title of the Project	Number of beneficiaries	Class	Supervisor
1.	To study the effect of freezing temperature on the rate of germination	10	B.Sc. (II) Medical	Dr. Jasleen Kaur
2.	To study the uses and economic importance of spices used in the Indian subcontinent.	15	B.Sc. (I) Medical	Dr. Jasleen Kaur
3.	Study of Phototropism under different light conditions	10	B.Sc. (III) Medical	Dr. Geetika Singh
4.	Effect of climatic factors on the vegetative propagation in some plants	10	B.Sc. (I) Medical	Dr. Geetika Singh
5.	To prepare an inventory of trees in college campus	28	B.Sc. (II) Medical	Dr. Gunjan Sud
6.	To evaluate the habit of plants in the college campus	51	B.Sc. (II) Medical	Dr. Gunjan Sud
7.	To identify different types of insect pests and host plants in the college campus	20	B.Sc. (II) Medical	Dr. Gunjan Sud Dr. Ravneet Kaur
8.	To study the effect of plant water extracts on growth and germination of different seeds	10	B.Sc. (III) medical	Dr. Aditi Shreeya Bali
9.	Ethnobotanical survey of medicinal plants growing in an area	8	B.Sc. (III) medical	Dr. Aditi Shreeya Bali
10.	Comparative analysis of chickpea genotypes under salinity stress	5	B.Sc. (III) medical	Dr. Purnima Bhandari
11.	Study the role of glucose	5	B.Sc. (III)	Dr. Purnima

	in alleviating salinity in chickpea		medical	Bhandari
12.	Study the ameliorative role of nitrous oxide in alleviating salinity in chickpea	5	B.Sc. (III) medical	Dr. Purnima Bhandari
13.	To study the effect of eco-enzyme on growth of potted plants	10	B.Sc. (III) Non-medical	Dr. Purnima Bhandari Dr. Shefali Dhiman

***Interdepartmental projects***

S.No.	Title of the Project	Number of Students	Class	Department involved	Supervisor
14.	Spread plating and streaking methods of bacteria	15	B.Sc. (I) Medical	Botany Food Science	Dr. Purnima Bhandari Dr. Vandana Sharma
15.	To identify different types of insect pests and host plants in the college campus	20	B.Sc. (II) Medical	Botany Zoology	Dr. Gunjan Sud Dr. Ravneet Kaur
16.	To study the effect of eco-enzyme on germination traits of a legume	10	B.Sc. (I) Non-Medical & Medical	Botany Chemistry	Dr. Purnima Bhandari Dr. Shefali Dhiman
17.	To study the effect of eco-enzyme on growth of potted plants.	12	B.Sc. (I) Non-Medical & Medical	Botany Chemistry	Dr. Purnima Bhandari Dr. Shefali Dhiman

**Department of Physics:**

ROLL NO	Name	Project Title	Teacher's name
2467	KAJAL DHIMAN	Project on web designing	Ms. Poonam Jain
2474	RAJINDER KAUR	Worked on Black Holes	Ms. Rimple
2475	DREAMSY MNCHANDA	Thin film deposition and structural analysis of iron nitrides and iron oxy nitrides	Dr. Yogita, Dr. Renu Bala
2476	PRIYAL DHEMBA	To study the properties of neutron star	Ms. Poonam Jain

3061	AVEKSHA SHARMA	Worked on Feeding India	Dr. Renu Bedi
3067	AARYA MISHRA	Worked on Floor Cleaner	Ms. Raman Chadha
3068	SIMRAN KHOSLA	To study the characteristics of full wave rectifier	Dr. Yogita
3069	ANKITA	Worked on Knit for India	Dr. Meetika Garg
3071	SHILPA DEVI	To explain the working of vaccum cleaner	Ms. Rimple
3072	NITIKA ARORA	To explain the effects of oil spills	Dr. Renu Bedi
3073	YASHIKA	To study the properties of nano fuels	Dr. Yogita
3074	VAGISHA	Worked on Brainw Ave Sensors	Ms. Raman Chadha
3075	KIRANPREET KAUR SETHI	Literature survey on Large hadron collider	Ms. Poonam Jain
3076	BHAVIKA JAIN	Report on hydro electric power plant	Dr. Renu Bedi
3077	PALLAVI ASHRI	To explain the World's Smallest Washing Machine DOLFY	Ms. Poonam Jain
3079	DAMINI	To study the properties of cosmic rays	Ms. Raman Chadha
3080	NIKITA MAKAR	Worked on Planetary Magnetic Fields	Ms. Raman Chadha
3081	SHAYNA CHHABRA	To explain the concept of time travel	Dr. Renu Bedi
3082	UMANG SHARMA	Worked on Wireless Door Bell	Ms. Raman Chadha
3083	KOMALPREET KAUR BRAR	To study the properties of projectors	Ms. Poonam Jain
3084	SUDI KSHA	To study the Four Point Probes Method	Dr. Yogita, Ms. Poonam Jain
3085	KANIKSHA	To study the mechanisms behind the lotus effect	Ms. Raman Chadha
3086	KARMEN KAUR	Water alarm	Dr. Yogita, Ms. Poonam Jain
3087	SIMRAN RANI	Worked with a NGO	Ms. Raman Chadha
3088	POOJA PALIWAL	To explain why earth lived & mars died	Dr. Renu Bedi
3089	HARSIMRAN KAUR	Projector using bulb	Dr. Renu Bala
3090	AMANPREET KAUR	Project report on fire alarm	Ms. Raman Chadha
3091	PARAMPREET KAUR	To study the properties of neutron star	Ms. Raman Chadha
3092	ARSHVEER	To study the working of laser Security Alarm	Dr. Renu Bedi
3093	MANSI MANKOTIA	To study the characteristics of full wave rectifier	Ms. Raman Chadha
3094	SAUMYA THAKUR	To explain the construction & working of solar panels	Dr. Meetika Garg

3095	AASHIMA SABHARWAL	Worked on Quantum Teleportation	Dr. Renu Bedi
3096	NANCY DEVI	To explain the construction & working of two stroke engine	Dr. Renu Bala
3097	ASMITA MALHOTRA	To study the variation of Electrical resistance	Dr. Yogita, Ms. Poonam Jain
3098	HARMANJEET KAUR	Young's double slit experiment	Dr. Meetika Garg
3099	JASMIN KAUR	Worked with a radiology lab	Ms. Raman Chadha
3100	ANJALI	Research paper on molecules cooled below the doppler limit	Dr. Meetika Garg
3101	ABHILEKHA	Worked on Solar Cells	Dr. Yogita, Ms. Poonam Jain
3102	AASHIMA	Worked for spider silk	Dr. Meetika Garg
3103	ALISHA	Research in astrophysics	Dr. Renu Bedi
3104	MEGHA	To explain the theory of quantum computing	Dr. Renu Bala
3105	NITIKA	To study various types if Liquid Crystal Display	Dr. Meetika Garg
3106	NIHARIKA TANWAR	To explain the schrodinger wave equation of helium atom	Ms. Raman Chadha
3107	MANPREET KAUR	To study the transmission electron microscopy	Ms. Rimple
3108	PRACHI	To explain the role of physics in laser eye surgery	Ms. Raman Chadha
3109	ADITI	Worked on Treatment of Cancer	Ms. Rimple
3111	ARSHDEEP KAUR	To study the working of hydropower plant	Dr. Kirandeep Kaur
3112	MITALI SINGH	To explain big bang theory	Dr. Renu Bala
3115	RAVIKA CHAUDHARY	To study the charcateristics of Half Wave rectifier	Dr. Yogita, Ms. Poonam Jain
3116	JUBLEEN	Project on logic gates	Ms. Rimple
3117	MANJU	Worked on Quantum Computing	Dr. Renu Bedi
3119	RIYA SHARMA	Water level indicator alarm	Ms. Rimple
3120	RAJWINDER KAUR	Explanation of Photo diode and its Applications	Dr. Yogita, Ms. Poonam Jain
3123	VASUDHA	Theroretical report on water indicator alarm	Dr. Kirandeep Kaur
3125	RITIKA	Report on quantum computers	Ms. Raman Chadha
3126	RAVINDER KAUR	Description of black holes	Ms. Rimple
3127	URVASHI	Magnetism of materials	Dr. Yogita, Ms. Poonam Jain
3129	AAINA VASHISHT	Description of black holes	Dr. Kirandeep Kaur
3131	KOMAL RANI	To study Hall effect and resistivity	Dr. Yogita, Dr. Renu Bala

3133	SHIKHA GOYAL	Gravitational waves	Dr. Kirandeep Kaur
3134	MAANSI AGGARWAL	To explain eco enzyme	Ms. Rimple
3135	MANSI ARORA	Theoretical report on working model of generator	Dr. Kirandeep Kaur
3142	ISHITA	To study various techniques of Nanotechnology	Dr. Yogita, Dr. Renu Bala
3144	ISHITA GOEL	Designing of a web page	Dr. Yogita, Ms. Poonam Jain
3146	MUSKAAN GULATI	Literature survey on gravitational waves	Dr. Renu Bedi
3160	HARSHITA SHARMA	Description of black holes	Dr. Kirandeep Kaur
3171	RADHIKA	Report on floating solar power plant	Dr. Yogita, Dr. Renu Bala
2461	TANYA MOGA	Worked in citizen forum ferozepur	Ms. Poonam Jain, Dr. Yogita
2464	CHARU	To study the characteristics of full wave rectifier	Ms. Rimple
2465	SRISHTI SHARMA	Description of black holes	Dr. Yogita, Dr. Renu Bala
2466	KANIKA	To explain the working of fire alarm	Ms. Poonam Jain
2470	NITU KUMARI	To explain the working , principle and types of induction motor	Dr. Renu Bedi
2471	RAKSHITA	To study the characteristics of field effect transistor	Ms. Raman Chadha
2478	SANA KUMAR	To explain the working of fire alarm	Dr. Meetika Garg
2479	NAVJOT KAUR	To explain the working of solar cooker	Ms. Rimple
3136	PRALIBHA ARORA	Explanation of Projectors	Dr. Renu Bedi
3140	VAISHALI GARG	To study the characteristics of water level indicator	Dr. Yogita
3141	KALPANA GARG	Worked in citizen forum ferozepur	Ms. Raman Chadha
3143	SHIVANGI DESWAL	To study various techniques of Nanotechnology	Ms. Poonam Jain
3147	ANIKA SINGH	Association for Social Consiousness and Entrepreneurial Development	Dr. Renu Bedi
3150	PRATIBHA BHATTIA	To study the Types and uses of Hydropower	Dr. Yogita
3153	VISHRUTI SHARMA	Study of Properties and Application of Nanomaterials	Ms. Raman Chadha

3157	RASHI JHAMB	To study working of DC motor	Ms. Raman Chadha
3161	LEEZA	Explanation of street light control	Dr. Renu Bedi
3162	SAKSHI KUMARI	To study Hall effect and resistivity	Ms. Raman Chadha
3166	HARNOORDEEP KAUR	To study the working of wind mill	Ms. Poonam Jain, Dr. Yogita
3169	WAIKHTAM CHANU SYLVISH	To study the charactersitics of Tesla coil	Dr. Yogita
3180	SIMRANPREET KAUR	To study working of Ac generator	Ms. Raman Chadha
3181	NIDHI THAKUR	To study the working of Steam Turbine	Ms. Poonam Jain, Dr. Yogita
3184	PRACHI SUKORE	To study of Details of Dark Matter	Ms. Raman Chadha
3186	NISHTHA JAIN	worked in Hands for Animals and Nature Defence Services	Dr. Renu Bedi
3191	VANDANA JAIN	To study the working of Rain Alarm Project	Dr. Renu Bala
3192	ADITI SHARMA	To explain the working of fire alarm	Ms. Raman Chadha
3193	SHARANJOT KAUR	To explain working of Door Alarm	Ms. Raman Chadha
3194	NAVPREET KAUR	To explain working of Vaccumm Cleaner	Dr. Renu Bedi
3195	DIKSHA THAKUR	To study the components of Laser	Ms. Raman Chadha
3197	MAHIMA	Worked on Knit for India	Dr. Meetika Garg
3199	RAMANDEEP KAUR	To study working of Hydrollic Bridge	Dr. Renu Bedi
3179	SHIKHA	To study the Production methods of Nanosensors	Dr. Renu Bala
2801	SONAKSHI BEHL	To study the working of Geiger Muller counter	Ms. Poonam Jain, Dr. Yogita
2803	NITIKA	To study the efficiency and ripple factor of rectifiers	Ms. Rimple
2804	KIRAT KAUR	To study the Zener Diode & P-N junction diode characteristics	Dr. Yogita, Dr. Renu Bala
2806	AMRINDER KAUR	To explain free electron theory	Ms. Poonam Jain
2808	RUCHI THAKUR	To study the magnetic susceptibility of a magnetic material by quincke's method	Dr. Renu Bedi



2809	TANU TANDON	To explain the types & working of semiconductors	Ms. Raman Chadha
2810	NAVDEEP KAUR	To study the working of Cathode Ray Oscilloscope	Dr. Yogita
2812	AKSHU GREWAL	To study the properties of multimeter	Dr. Meetika Garg
2814	MEEGHA BISHNOI	To study the common emitter amplifier characteristics	Ms. Poonam Jain
2815	KRITIKA SHARMA	To explain the general properties of nucleus	Dr. Renu Bedi
2816	RIYA	To explain the types & working of semiconductors	Dr. Yogita
2818	HARJEET KAUR	To explain nuclear models of atoms	Ms. Raman Chadha
2820	NEHA VERMA	To explain the energy band and types of semi conductors	Ms. Poonam Jain, Dr. Yogita
2821	NIKITA	To explain logic gates and basic digital design	Dr. Renu Bedi
2823	SHIKHA BHOJ	To explain the types & application of radioactivity	Dr. Yogita, Ms. Poonam Jain
2824	PARUL	To study the properties of gravitational waves	Ms. Raman Chadha
2825	RITIKA NARWAL	To explain the properties & working of hydroelectricity	Ms. Raman Chadha
2826	SAPNA	To explain the constuction & working of liquid crystal display	Dr. Renu Bedi
2828	BHAVIKA	To study the efficiency of thermal power plant	Ms. Raman Chadha
2829	KOMAL	To explain the working of oscilator	Ms. Poonam Jain, Dr. Yogita
2830	AASTHA	To study the types & working of detectors	Ms. Poonam Jain, Dr. Yogita
2831	PRAKRITI ARORA	To study the construction & working of solar cells	Ms. Raman Chadha
2832	PRIYANKA BEDI	To study the ripples in rectifiers & filters	Ms. Poonam Jain, Dr. Yogita,
2833	AMANPREET KAUR	To explain the types & working of semiconductors	Ms. Poonam Jain
2834	MEGHNA	To study the accelerators development in india	Dr. Renu Bedi
2835	ARPITA SHARMA	To study the properties of cosmic rays	Dr. Renu Bala
2837	POORNIMA CHAUDHARY	To explain the types & working of semiconductors	Ms. Raman Chadha

2839	MEGHA MEHTA	To study the properties of plasmonics	Ms. Raman Chadha
2841	PRIYANKA	To study the types & characteristics of amplifiers	Dr. Renu Bedi
2842	LATIKA	To explain the properties of crystal structures	Ms. Raman Chadha
2844	SUVIDHA YADAV	To explain modulation & demodulation	Dr. Meetika Garg
2845	TANU GAUR	To study the nanoflakes & types	Dr. Renu Bedi
2846	SANJU	to study the laser & its applications	Dr. Renu Bala
2850	SIMRANJEET KAUR	To explain the Brillouin zones of the reciprocal lattice	Dr. Yogita
2851	APOORVA VATS	To explain the importance & types of transistors	Dr. Yogita

### ***Interdisciplinary project***

Apart from these projects, Department of Physics carried out an interdepartmental project with Department of Zoology in which Ms. Poonam Jain and Dr. Yogita from Department of Physics collaborated with Dr. Neetu and Dr. Radhika for studying the effects of beta radiation on fruit flies. Ten students from both the departments participated in this project.

### **Department of Zoology:**

S. No.	Title of the Project	Number of Students	Departments involved	Supervisors
1.	Genotoxic analysis of beta radiations in <i>Drosophila</i>	10	Zoology, Physics	Dr. Neetu Dr. Radhika
2.	Studies on the prevalence of parasitic contamination in fruits and vegetables	10	Zoology, Botany	Dr. Harpreet Dr. Geetika
3.	Histopathological studies on different animal tissues	44	Zoology	Dr. Harpreet
4.	Studies on zooplankton and phytoplankton in pond ecosystem	25	Zoology, Botany	Dr. Sarabjeet Dr. Aditi
5.	Studies on the toxic potential of <i>Ocimum</i> nanoparticles in midgut cells of adult <i>Drosophila</i> using comet assay	20	Zoology, Botany, Chemistry	Dr. Neetu Dr. Radhika
6.	Biodiversity auditing in the college campus	50	Zoology, Botany	Dr. Neetu Dr. Ravneet
7.	Habitat characterization of mosquito species breeding in N-Choe, Chandigarh	10	Zoology, Botany	Dr. Neetu Dr. Sarabjeet Dr. Ravneet
8.	Studies on different types of insect pests and host plants in the college campus	20	Zoology, Botany	Dr. Ravneet Dr. Gunjan

9.	Preparation of vermitea from vermicompost	10	Zoology	Dr. Neetu
10.	Studies on the effect of vermitea on the growth of potted plants	10	Zoology, Botany	Dr. Neetu Dr. Purnima
11.	Studies on the prevalence of fish parasites in local fish markets	10	Zoology	Dr. Sarabjeet
12.	Preparation of glue from fish scales and fins	10	Zoology	Dr. Sarabjeet

## 16. FACULTY IMPROVEMENT ACTIVITIES SUCH AS TRAINING COURSES, SEMINARS ETC CONDUCTED AND THEIR IMPACT

### Department of Food Science

Title
<p>Seven Day National Faculty Development Programme on ‘Expanding Paradigms of Pedagogy’ from 13<sup>th</sup> -19<sup>th</sup> April, 2017 which included:</p> <ul style="list-style-type: none"> <li>• Learning of statistics-r and SPSS</li> <li>• Data presentation</li> <li>• Effective writing of research based grants</li> <li>• Career development of teachers and 4<sup>th</sup> UGC amendments</li> <li>• Plagiarism and its usage</li> <li>• Women empowerment and funding available for women entrepreneurship</li> </ul>

#### Impact of the Faculty Improvement Activities:

- Development of research orientation and scientific temperament
- Awareness about different funding schemes for availing research grants
- Awareness on resource generation, improving writing skills
- Knowledge about statistical tools, data analysis and effective data presentation methods

#### Department of Chemistry:

P.G. Department of Chemistry, organized two-days Lecture series Workshop on ‘Chemistry and its Multidisciplinary Facets’ in Association with Indian Academy of Sciences, Bangalore, Indian National Science Academy, New Delhi and The National Academy of Sciences, Allahabad on 24<sup>th</sup>-25<sup>th</sup> October, 2017.

#### Department of Botany:

#### *Faculty Development programme*

- i. A seven-day national faculty development programme on '*Expanding Paradigms of Pedagogy*', organized by Mehr Chand Mahajan DAV College for Women. Sector-36, Chandigarh from April 13, 2017 to April 19, 2017.
- ii. Workshop on "*Awareness Generation Camp; Dissemination of knowledge Camp; Skills about Recent Advances in Nutrition and Safety*", organized by the Department of Food Science, Mehr Chand Mahajan DAV College for Women. Sector-36, Chandigarh on November 23, 2017.

***Impact:***

- i. Enhances the teaching skills of the faculty and motivates them to pursue interdisciplinary research
- ii. Enthusiastic participation of the faculty in extra-curricular activities.

**Department of Physics:**

- 1. Workshop on automation and control:** A one two workshop of 'automation and control' was organized by Department of Physics on October 24-25, 2017. About 40 students and all faculty members of Department of Physics took part in the workshop. Mr. Lalitesh Kumar from Sofcon Pvt. Ltd. was the resource person. Students were taught to make various automation projects using Arduino technology. This workshop was organized in collaboration with National skill development cooperation (NSDC), Government of India.
- 2. Lab safety workshop:** Department of Physics actively participated in lab safety workshop conducted by Dr. Angshuman Roy Chaudhary on March 17, 2018.
- 3. Visit to Energy park, Sarangpur:** Department of Physics organized a trip to Energy park Sarangpur on Feb 25, 2018. Students were made familiar with various means of renewable energy during the visit.
- 4. Summer training in collaboration with NSDC (National skill development cooperation, Government of India) (Proposed)**

**Impact:**

- These faculty improvement measures opened up avenues for discussions on various topics of Physics education and current developments.

### **Department of Zoology:**

- Seven days National level Faculty Development Programme on “**Expanding Paradigms of Pedagogy**” organized by MCM DAV College for Women, Sector 36-A, Chandigarh from 13.04.2017 to 19.04.2017.
- Interactive Workshop on “**Educating for Responsible leadership in the context of Sustainable development goals**” organized by London School of Management Education at MCM DAV College for Women, Sector 36-A, Chandigarh on 09.04.2018.

### **Impact of the Faculty Improvement Activities:**

- Development of academic leadership qualities
- Renewal of enthusiasm of the faculty for interdisciplinary research.
- Active participation of faculty in exploring new avenues for the undergraduate medical students.

## **17. OUTREACH ACTIVITIES CONDUCTED AND THEIR IMPACT/ FOLLOW-UP**

### **Department of Food Science:**

- Active involvement in organizing food, nutrition and health related activities including awareness and extension lectures, and food adulterants testing.
- Students and faculty play active role in blood and organ donation camps and free health check up camps in the College.
- Active involvement of students in Swatchta Abhiyaan -2017 by participation in slogan writing competition
- Students actively displayed self-made orange peel candies and chocolates on Diwali fest-2017
- Active participation of students in “All India Survey of Food Technology Institutes”.
- Students are actively involved in NCC cleanliness drive, NSS, and Rotract Club.
- Active participation of students in “All India Quiz competition of colleges on Food Safety” organized by CII and Suraksha Khadyaa Abhiyaan (SKA)

### **Impact:**

- Sensitization of students and faculty towards social challenges and their mitigation, and their responsibilities towards these causes.
- Sensitization of students towards embarking skill development and entrepreneurship temperament.

### **Department of Chemistry:**

P.G department of Chemistry visited **Jyoti Sarup Kanya Asra Society** (An Orphanage for girls) in the month of March 2018. The visit was planned to mark a positive effect and to enhance the personal growth and social responsibilities amongst the students. It also exposed the students to the needs and problems of the underprivileged children.

#### **Department of Botany:**

- i. Installation and maintenance of three composting units in the college campus for converting green waste generated in college campus to organic manure  
**Impact/Follow up:** Manure prepared will be utilized in lawns and garden of college campus for growing plants, thus promoting the concept of *organic farming*.
- ii. Labelling of plants growing in college campus area  
**Impact/Follow up:** Name plates bearing plant botanical name, family and common name have been installed at different places in campus so as to make the students as well as staff members aware about the flora of the campus and their uses (if any).
- iii. Setting up of an artificial forest with the theme “**Back to Nature**” where different ornamental and medicinal saplings of plants including giloy, amla, *Murraya* have been planted.  
**Impact/Follow up:** Innovative practice taken under Swachhta Mission for (i) generating awareness among masses about the uses of such economically important plants and (ii) converting more campus area under a green cover.

#### **Department of Physics:**

- Department is actively involved in organizing various **philanthropic activities** such as distribution of blankets among patients of leprosy and taking classes of underprivileged kids.
- The faculty in collaboration with the department of Hepatology, PGIMER registered the college staff members and students for **organ donation**.
- Students participated in various inter disciplinary activities such as **art workshops, NSS, NCC and Rotoract club**.
- Students of department of Physics are associated with various **NGOs for underprivileged kids and old age homes**. Some of them usually spend their summer vacations in these outreach activities.

- In a unique **attempt to share our resources**, Department has extended a helping hand to Department of Physics, DAV College, Sector 10, Chandigarh. A lab session was conducted for the students of DAV College on March 14, 2018. This was to help them carry out those experiments in our labs which are not available in their labs at the moment.

**Impact:**

With these activities, students become more aware and responsible for their contribution towards the society.

**Department of Zoology:**

- Faculty of the Zoology department delivered extension lectures at Govt. Model Senior Secondary School, Maloya under Rashtriya Madhyamic Shiksha Abhiyaan (RAMSA), UT, Chandigarh with an aim to spread awareness about adolescent issues. The details are as follows:

<b>Name of the Resource person</b>	<b>Topics discussed during the extension lecture</b>
Dr. Neetu	Communicable diseases and their prevention
Dr. Sarabjeet Kaur	Personal Hygiene, Reproductive biology of females, Prevalence of cancer in females
Dr. Harpreet Kaur	Rights of a girl child, Career opportunities

- The faculty organized hands on training workshop on “**Fire safety**” for the teaching as well as non-teaching staff of the college on 18.09.2017. A live demonstration on Fire fighting was conducted for all the laboratory attendants by representatives from A.K. Fire Engineering, Chandigarh.
- Active involvement of the faculty in organizing all the **health related activities** including awareness lectures, extension lectures and free health check up camps in the College.

**18. ANY OUTSTANDING ACHIEVEMENT BY STUDENT/FACULTY (merit, award, research paper, presentation in national/international conference/ etc; full citation to be provided)**

**Department of Food Science:**

**Students’ Achievements**

- First prize in Skit (PU Zonal Youth festival) held on 24 Sept, 2017 – Gurleen Pannu of B. Sc (MFT) II year.



- First prize in Clean Mess Day Slogan Writing competition under Swachhta Abhiyaan Programme held at MCM DAV College for Women. The Topic For Slogan Writing was Health and hygiene – Dibjot Kaur of BSc.(MFT) III year.
- First prize in Gidda in Youth and Heritage Festival held on 25 Sept, 2017 – Prabhleen of BSc.(MFT) III year.
- Third prize in 59th Panjab University inter-zonal youth and heritage festival 2017-18 (28th-31st Oct) held at Dav College Hoshiarpur- Prabhleen of BSc.(MFT) III year.
- Second prize in Luddi in Youth and Heritage Festival held on 25 Sept, 2017 – Ritika Kadian of BSc.(MFT) III year.
- Secured second position in Football inter college sports competition held on 8 January-12 January 2017 at Gursar Sidhar( Ludhiana)- Ramandeep Ghumman of BSc.(MFT) II year.
- Secured second position in Football inter college sports competition held on 25 October 2017-29 October 2017 at Gursar Sidhar (Ludhiana) - Ramandeep Ghumman of BSc.(MFT) II year.
- Gold medal in kho-kho competition held under National Integration Awareness Camp (NIC) of NCC Naval wing at Ropar, Panjab from 10 Jan-21 Jan 2018 – Lovepreet Kaur of BSc. (MFT) II year.
- Secured third position in Sepak Takraw inter college sports competition held on 23 January 2018-24 January 2018 at Panjab University-Ramandeep Ghumman of BSc.(MFT) II year.
- Second prize in Surakshit Khadya Abhiyan All India Food Safety Quiz (Chandigarh zone including Punjab, Haryana, Rajasthan, Himachal and U.P) organized by Confederation of Indian Industry. The quiz was held at CII office, Chandigarh on 11th September, 2017- B.Sc. MFT-III yr (Navya Kamboj and Sanveer Sandhu).
- Ujjawal- Student of BSc.(MFT-II year) got selected in Science Academies Summer Research Fellowship Program 2018 organised by Indian Academy of Sciences and placed under Dr. Jyoti Basu at J.C Bose Institute Calcutta.
- Seven students of BSc. (MFT)III year presented posters at National Conference on Emerging sustainable technologies in Food Processing (ESTFP 2018) organized by Department of Food Engineering and Technology, Sant Longowal Institute of Engineering and Technology, Longowal, Punjab on 15-16 March 2018.
- Three students of BSc.(MFT) I year won first prize I Poster presentation competition organized by Dept. of Chemistry on 17 March 2018 – Gulfashan and Shania Saini, Vanshika Sharma.
- Five students of BSc.MFT-III year presented their research work as posters at the ‘Third National Conference on Contemporary Food Processing and Preservation Technologies’ organized by School of Bioengineering and Food Technology, Faculty of Applied Sciences and Biotechnology, Shoolini University, Solan (HP) on 12 April 2018.



- 17 students of BSc.(MFT) III year presented their research work as posters at “International Conference on Science and Technology: Trends and Challenges ” organized by faculty of Science of Gujranwala Guru Nanak Khalsa College in collaboration with Punjab Academy of Sciences, Patiala on 17 April 2018

## **Faculty Achievements**

### **Dr. Geeta Mehra**

- Conducted packaging and price analysis for products of different food brands with B.Sc. (MFT) Ist Year students.
- Conducted student orientation programme with B.Sc. (MFT) IInd Year on Feasibility Reports on Entrepreneurial Opportunities in Food Industry in October 2014.
- Mehra, G. 2014. Nanotechnology and its Final Frontier – Food! In: Bhoop B. S. (eds.) Proc. NanoSciTech 2014. Nanotechnology: Novel Perspectives and Prospects, McGraw Hill, India. ISBN 10: 93-392-2109-5.
- Mehra, G. and Chauhan, G. S. 2014. Optimization of mucilages from fenugreek and yellow mustard seeds in apricot, peach and plum RTS beverages. Harnessing Engineering, Technology, and Innovation for Sustainable Growth, SSBUIET, PU, Chandigarh, Sept. 19-20.
- Attended two weeks Faculty Development Programme sponsored by Department of Science and Technology, New Delhi and organized by Regional Centre for Entrepreneurship Development, Chandigarh and University Institute of Hotel and Tourism Management, Panjab University, Chandigarh held at University Institute of Hotel and Tourism Mgt, Panjab University, Chandigarh from November 17-28, 2014.
- Attended an interactive session with the faculty of Indian School of Business (ISB), Mohali on November 27, 2014.
- Delivered a special lecture on Genetically Modified Foods – Myths and Facts to Civil Service Students of Centre for IAS and Other Competitive Examinations, Panjab University, Chandigarh on November 1, 2014.
- Session undertaken on Food Business Start-up – Bon Appétite in Entrepreneurship Development Programme organised by Regional Centre for Entrepreneurship Development, Chandigarh on April 23, 2014.
- Mehra, G., 2015. Genetic Engineering in Food Security, Invited Lecture to Civil Service Students of Centre for IAS and Other Competitive Examinations, Panjab University, Chandigarh, October.
- Mehra, G., 2015. Nutrition and Health: Cause and Effect, Invited Lecture to Civil Service Students of Centre for IAS and Other Competitive Examinations, Panjab University, Chandigarh, September.
- Mehra, G., 2015. Roles and Responsibilities of Food Handlers, Invited speaker at DST sponsored 1<sup>st</sup> workshop on Nutrition and Food Safety at PGIMER, Chandigarh, October.

- Mehra, G. 2015. ABCD of Nutrition and Health, Invited Lecture at Khalsa College, Patiala, August 28.
- Mehra, G. 2015. Food Packaging and labeling----Cover(ed) to Reveal, Invited Lecture at Khalsa College, Patiala, August 28.
- Mehra, G., 2015. Food: Nourishment or Punishment, Invited Lecture to Civil Service Students of Centre for IAS and Other Competitive Examinations, Panjab University, Chandigarh, April 11.

#### **Dr. Vandana Sharma**

- Selected as a member of the Undergraduate Board of Studies in Microbiology.
- Participated in the “STEM Teacher Training Workshop on Research Based Pedagogical Tools” workshop held from 23-25 Jan. 2017 at the Indian Institute of Science Education and Research, Mohali, jointly sponsored by DBT, Govt. of India, Newton Bhabha Fund of the British Council and IISER Pune.
- Attended 7 day FDP on “ Expanding Paradigms of Pedagogy” from 13-19 April, 2017.
- Published a paper titled, ‘Climate Change and Resurgence of Chickungunya in India: A Review”, in Proceedings of International Conference on Advancements in Science and Technology, ICAST-2017, McGraw Hill Publications, (ISBN(13): 978-93-5260-650-4). 2017; 155-157.
- Awarded Summer Research Fellowship certificate in September 2017 by Indian Academy of Sciences and Indian National Science Academy.
- Invited as Resource Person in 2<sup>nd</sup> National Conference on “Biotechnology Academic Industrial Interface” organized by Department of Biotechnology, CGC Landran, and AMI, Chandigarh in September 2017
- MFT 3<sup>rd</sup> yr. students (12) mentored for poster presentation in National Conference on “Biotechnology Academic Industrial Interface” organized by Department of Biotechnology, CGC Landran and AMI, Chandigarh in September 2017.
- Invited as Resource Person at 7 days NSS camp from 29 Sept. to 5 Oct. 2017.
- Attended a workshop on “Awareness Generation and Dissemination of Knowledge and Skills about Recent Advances in Nutrition and Food Safety” organized by PGI and MCM College in November 2017.
- Organized industrial visit to Mrs Bector’s Cremica Food Specialties Limited in November 2017.
- Conducted practical examination of B.Sc. Biotechnology in Chandigarh College of Technology, Mohali in December 2017.
- Paper presented in National Seminar on “Academic and Administrative Audit in Higher Education” Institutions organized by DAV College Jalandhar in January 2018.
- Paper presented at International Conference on “Soul in Symphony: Spiritual and Pragmatic Aspects of Happiness” in January 2018.

- Awarded certificate of appreciation in acknowledgment of chairing a session in International conference “ Soul in Symphony: Spiritual and Pragmatic Aspects of Happiness” organized by MCMDAV College for Women, Chandigarh in January 2018.

### **Dr. Sandeep Kaur**

- **One International Publication** : Chhibber S, Shukla A, Kaur S (2017). "Transfersomal phage cocktail : an effective treatment against methicillin resistant *S. aureus* (MRSA) mediated Skin and Soft tissue infections (SSTIs)".Antimicrobial Agents and Chemotherapy. Accepted (Printing in process; AAC02146; doi:10.1128/AAC.02146-16).
- Member of the organizing team in the Workshop on Start Up Stand Up for Potential Young Entrepreneurs held at Rajiv Gandhi National Institute of Youth Development, Chandigarh from Oct 10th, 2017 to Oct 13th, 2017.
- Presented oral presentation on “ Climate Change and Resurgence of Chickungunya in India” at International Conference on Advancements in Science and Technology (ICAST) held on April20-21,2017 at Rayat Bahra University, Mohali, Panjab in association with DRDO, New Delhi.
- Published a paper titled, ‘Climate Change and Resurgence of Chickungunya in India: A Review’, in Proceedings of International Conference on Advancements in Science and Technology, ICAST-2017, McGraw Hill Publications, (ISBN(13): 978-93-5260-650-4). 2017; 155-157.
- Organizing committee member for the event : Seven day National Faculty Development Program on “Expanding Paradigms of Pedagogy” held at MCMDAV college for Women, Chandigarh from 13 Apr-19 Apr,2017.
- Presented poster entitled “Evaluation of anti-bacterial activity of human breast milk” at National Seminar and Science day held at DAV College, Chandigarh on 27-28 Feb, 2017.
- Presented paper on “Human Gut Microbiome: Key to Mental health and Happiness” at International Conference on “*The Soul in Symphony: Spiritual and Pragmatic Aspects of Happiness*” on 29-30 January 2018.
- **Paper accepted for publication (In press)** : Liposome Entrapment of Bacteriophages Improves Wound Healing in a Diabetic Mouse MRSA Infection has been approved for production and accepted for publication in Frontiers in Microbiology, section Antimicrobials, Resistance and Chemotherapy.

### **Dr.Ruchi**

- Member of the organizing team in the Workshop on Start Up Stand Up for Potential Young Entrepreneurs held at Rajiv Gandhi National Institute of Youth Development, Chandigarh from Oct 10th, 2017 to Oct 13th, 2017

### **Dr. Sucheta**

- Became reviewer for Journal of Food Science and Technology
- Shortlisted in top 9 for academic associate at IIM, Ahmedabad for Food and Agribusiness Management.
- Published review article entitled “Probiotics from food and eubiosis in gut: a commensalism” in Asian Journal of Dairy and Food research, 2017
- Qualified junior food analyst exam, FSSAI, 2018.

### **Dr. Bindu Tathata**

- Organizing member in
  - i) Food safety workshop (National) held on 23 November 2017
  - ii) Workshop on Startup Stand up for Potential Young Entrepreneurs by Rajiv Gandhi National Institute of Youth Development (RGNIYD) regional center, Chandigarh held from 10/10/2017-13/10/2017
- Supervised the designing of the following instruments:
  - i) To calculate the coefficient of friction of grains (Food Engineering)
  - ii) To calculate the Relative humidity of Intermediate Moisture Food (IMF) (Food Engineering)
- Completed Ph.D in Food Engineering & Technology under the guidance of Prof. Pradyuman Kumar on the research topic “Process technology for the preparation of shelf-stable beetroot juice powder”.

### **Department of Chemistry:**

- **Academic Achievements of Aastha (B.Sc-III Med)** - IIT JAM (BL) AIR 16, IIT JAM (BT) AIR 10, CEEB JNU (BT) AIR 4, JGEEBILS – QUALIFIED, DBS – TIFR- Shortlisted for the integrated PhD program.
- **Academic Achievements of Shivani (B.Sc-III Med)-** IIT JAM (Chemistry) AIR 475 Anamika Avni bagged 7<sup>th</sup> position for M.Sc in Chemistry in Panjab University **Examinations 2017**
- **14** students of **B.Sc MFT** and **B.Sc Medical** have been placed as **Medical scribe Trainee** in grade BJ2 at **Healthcare Services medical Scribe**
- **Dr. Madhuri Tanaji Patil (Asst. Prof, MCM DAV College for Women)** has been awarded **DST Women Scientist Fellowship (DST-WOSA)** for the project

entitled “Synthesis and structure-property relationship studies of surfactants containing natural structural motif inositol as hydrophilic head group (**SR/WOS-A/CS-132/2016**)”. A research grant of Rs 9,25,000/- has been sanctioned for the period of three years

**Dr. Shefali Dhiman**

➤ **Research Publications**

Eco-enzyme-A Perfect House-hold Organic Cleanser. Shefali Dhiman,  
*International Journal of Engineering Technology, Management and Applied Sciences*, **2017**, 5, 2349- 4476.

➤ **National / International Workshops & Seminars Attended:**

1. Participated in DBT Sponsored Workshop on Electrochemistry by Dr. Sagar Mitra, IIT Mumbai on 13<sup>th</sup> October, **2017** organized by Post Graduate Department of Chemistry, Mehr Chand Mahajan DAV College for Women, Sector 36-A, Chandigarh.
2. Attended Science Academies’ Lecture Workshop on ‘*Chemistry and its Multidisciplinary Facets*’ organized by Post Graduate Department of Chemistry, Mehr Chand Mahajan DAV College for Women, Sector 36-A, Chandigarh in Association with Indian Academy of Sciences, Bangalore, Indian National Science Academy, New Delhi and The National Academy of Sciences, Allahabad on 24<sup>th</sup>-25<sup>th</sup> October, **2017**.
3. Presented a poster entitled “Happiness and Mental Health-A Symbiotic relation” at two day International Conference on ‘Soul in Symphony: Spiritual and Pragmatic Aspects of Happiness’ held at MCM-DAV College for Women , Chandigarh on January 29<sup>th</sup> and 30<sup>th</sup>, **2018**.
4. Presented a poster entitled “Euphoria and Neuropsychological functioning in bipolar effective disorder” at two day International Conference on ‘Soul in Symphony: Spiritual and Pragmatic Aspects of Happiness’ held at MCM-DAV College for Women , Chandigarh on January 29<sup>th</sup> and 30<sup>th</sup>, **2018**.

**Dr. Sagarika Dev**

➤ **Research Publications**

Dendritic Polynitrato Energetic Motifs: Development and Exploration of Physicochemical Behavior through Theoretical and Experimental Approach.

Pankaj Gaur, Sagarika Dev, Sunil Kumar, Mahesh Kumar, Anuj A. Vargeese ,

Pramod Soni, Prem Felix Siril, and Subrata Ghosh, *ACS Omega*, **2017**, 2, 8227–8233.

➤ ***National / International Workshops & Seminars Attended:***

1. Participated in DBT Sponsored Workshop on Electrochemistry by Dr. Sagar Mitra, IIT Mumbai on 13<sup>th</sup> October, **2017** organized by Post Graduate Department of Chemistry, Mehr Chand Mahajan DAV College for Women, Sector 36-A, Chandigarh
2. Attended Science Academies' Lecture Workshop on '*Chemistry and its Multidisciplinary Facets*' organized by Post Graduate Department of Chemistry, Mehr Chand Mahajan DAV College for Women, Sector 36-A, Chandigarh in Association with Indian Academy of Sciences, Bangalore, Indian National Science Academy, New Delhi and The National Academy of Sciences, Allahabad on 24<sup>th</sup>-25<sup>th</sup> October, **2017**.
3. Presented a poster entitled "Happiness: An Interplay between Happy Chemicals" at two day International Conference on 'Soul in Symphony: Spiritual and Pragmatic Aspects of Happiness' held at MCM-DAV College for Women, Chandigarh on January 29<sup>th</sup> and 30<sup>th</sup>, **2018**.

**Dr. Qudrat Hundal**

➤ ***Research Publications***

Facile Synthesis of novel  $\alpha$ -methylene – pyrazole- carboxylate substituted imines and trans- $\beta$ -lactams: Versatile synthons for diverse heterocyclic molecules. Qudrat Hundal, Shivani Berry, Shamsher S. Bari, Aman Bhalla. **2018**, Synthetic Communications: In Press

➤ ***National / International Workshops & Seminars Attended:***

1. Participated in One Day Workshop on '*Instrumentation Techniques in Chemistry* (HPLC, GC, FTIR, UV-VISIBLE SPECTROPHOTOMETER)' organized by Resonance Club of the Department of Chemistry, Goswami Ganesh Dutta S. D. College, Sector 32-C, Chandigarh on 15<sup>th</sup> March, **2017**.
2. Presented a poster entitled 'Novel C-4 Pyrazolyl  $\beta$ -Lactams' at International Conference on '*Green Chemistry/ Engineering and Technologies for Sustainable Development* (GCET-2017)' under the aegis of University Grants Commission Indo-US 21<sup>ST</sup> Century Knowledge Initiative on 20<sup>th</sup> -22<sup>nd</sup> April, **2017** jointly

organized by Department of Chemistry, Panjab University, Chandigarh (India) and Florida Polytechnic University, Lakeland (USA).

3. Participated in DBT Sponsored Workshop on Electrochemistry by Dr. Sagar Mitra, IIT Mumbai on 13<sup>th</sup> October, **2017** organized by Post Graduate Department of Chemistry, Mehr Chand Mahajan DAV College for Women, Sector 36-A, Chandigarh.
4. Attended Science Academies' Lecture Workshop on '*Chemistry and its Multidisciplinary Facets*' organized by Post Graduate Department of Chemistry, Mehr Chand Mahajan DAV College for Women, Sector 36-A, Chandigarh in Association with Indian Academy of Sciences, Bangalore, Indian National Science Academy, New Delhi and The National Academy of Sciences, Allahabad on 24<sup>th</sup>-25<sup>th</sup> October, **2017**.
5. Participated in National Seminar on 'Celebrating 220 years of Mirza Ghalib' organized by Mehr Chand Mahajan DAV College for Women, Sector 36-A, Chandigarh on 17<sup>th</sup> January, **2018**.
6. Participated in two day International Conference on 'Soul in Symphony: Spiritual and Pragmatic Aspects of Happiness' held at MCM-DAV College for Women, Chandigarh on January 29<sup>th</sup> and 30<sup>th</sup>, **2018**.
7. Member of the organizing team of workshop on "Sustainable Urban Farming" held at MCM-DAV College for Women, Chandigarh on February 7<sup>th</sup>, **2018**.

#### **Dr. Madhuri Tanaji Patil**

##### ➤ **Awards & Honors:**

**DST Women Scientist Fellowship (DST-WOSA):** The project entitled "*Synthesis and structure-property relationship studies of surfactants containing natural structural motif inositol as hydrophilic head group*" (SR/WOS-A/CS-132/2016) is accepted for DST Women Scientist Scheme-A (DST-WOSA).

##### ➤ **Research Publications:**

1. S. Kumar, M. T. Patil, R. Kataria and D. B. Salunke, Chapter 11. Thiazoles: A Privileged Scaffold in Drug Discovery, *Chemical Drug Design in De Gruyter*, **2016**, Pages: 243–282. ISBN: 9783110368826, DOI: <https://doi.org/10.1515/9783110368826-013>.



2. M. S. Shashidhar, R. G. Gonnade, N. T. Patil, M. T. Patil, A process for the preparation of chiral myo-inositol derivatives without involving chiral resolving agents, *Indian Patent Appl.* Number 201611011974, Dated, March 24, **2017**.

➤ **National / International Workshops & Seminars Attended:**

1. RUSA sponsored Workshop for ‘*Faculty Development Program on Spectrum of Science*’ organized by Department of Chemistry, DAV College, Chandigarh on January 20-28, **2017**.
2. Participated in DBT Sponsored Workshop on Electrochemistry by Dr. Sagar Mitra, IIT Mumbai on 13<sup>th</sup> October, **2017** organized by Post Graduate Department of Chemistry, Mehr Chand Mahajan DAV College for Women, Sector 36-A, Chandigarh.
3. Attended Science Academies’ Lecture Workshop on ‘*Chemistry and its Multidisciplinary Facets*’ organized by Post Graduate Department of Chemistry, Mehr Chand Mahajan DAV College for Women, Sector 36-A, Chandigarh in Association with Indian Academy of Sciences, Bangalore, Indian National Science Academy, New Delhi and The National Academy of Sciences, Allahabad on 24<sup>th</sup>-25<sup>th</sup> October, **2017**.

➤ **Oral Presentations:**

1. Delivered contributory talk entitled, “Synthesis of isomeric inositols and their derivatives from naturally abundant *myo*-inositol and associated structural studies” at The National Symposium on Recent Trends in Biotechnology and Drug Discovery on March 30-31, **2017** at the Department of Biotechnology, Shri Mata Vaishno Devi University, Katra, India.
2. Oral presentation at international conference on The Soul in Symphony:” Spiritual and Pragmatic aspects of Happiness” held on January 29-30, **2018** at MCM DAV College for Women on the topic ‘Science behind Happiness’.

➤ **Membership:**

Life member of Chandigarh Region Innovation and Knowledge Cluster (CRICK) Society, Chandigarh from **2017**.

**Dr. Rishu**

➤ **Research Publications:**

1. Enhanced activity of trinuclear Zn (II) complex towards phosphate ester bond cleavage by introducing three metal cooperativity. Pooja Joshi, Navid Hussain,



- Shah Raj Ali, Rishu and Vimal K. Bhardwaj, *New Journal of Chemistry*, **2017**, DOI: 10.1039/C6DT04505
2. Hg (II) and Pd (II) complexes with a new selenoether bridged biscabene ligands mono- and bis-arylation of methyl acrylate with a pincer bicarbene Pd(II) precatalyst. Rishu, Billa Prashanth, Deependra Bawari, Ushnish Mandal, Aditya Verma, Angshuman Roy Coudhary and Sanjay Singh, *Dalton Trans.*, **2017**, 46, 6291-6302
- **National / International Workshops & Seminars Attended:**
1. Participated in DBT Sponsored Workshop on Electrochemistry by Dr. Sagar Mitra, IIT Mumbai on 13<sup>th</sup> October, **2017** organized by Post Graduate Department of Chemistry, Mehr Chand Mahajan DAV College for Women, Sector 36-A, Chandigarh.
  2. Attended Science Academies' Lecture Workshop on 'Chemistry and its Multidisciplinary Facets' organized by Post Graduate Department of Chemistry, Mehr Chand Mahajan DAV College for Women, Sector 36-A, Chandigarh in Association with Indian Academy of Sciences, Bangalore, Indian National Science Academy, New Delhi and The National Academy of Sciences, Allahabad on 24<sup>th</sup>-25<sup>th</sup> October, **2017**.
  3. Participated in two day International Conference on 'Soul in Symphony: Spiritual and Pragmatic Aspects of Happiness' held at MCM-DAV College for Women , Chandigarh on January 29<sup>th</sup> and 30<sup>th</sup>, **2018**.

**Dr. Gargi Dhaka**

- **Research Publications:**
1. Exploiting the INHIBIT-ESIPT Mechanism for the Design of Fluorescent Chemosensor with a Large Blue-Shift in Emission. Gargi Dhaka, NavneetKaur, Jasvinder Singh, *J. Photochem. Photobiol. A*, **2017**, 335, 174-181.
  2. Benzothiazole based chemosensors having appended amino group(s): Selective binding of Hg<sup>2+</sup> ions by three related receptors. Gargi Dhaka, NavneetKaur, Jasvinder Singh, *Inorganica. Chimica. Acta*, **2017**, 462, 152-157.
  3. Spectral studies on benzimidazole-based "bare-eye" probe for the detection of Ni<sup>2+</sup>: Application as a solid state sensor. Gargi Dhaka, NavneetKaur, Jasvinder Singh, *Inorganica. Chimica. Acta*, **2017**, 464, 18-22.

4. Luminescent Benzothiazole-Based Fluorophore of Anisidine Scaffoldings: a “Turn-On” Fluorescent Probe for  $\text{Al}^{3+}$  and  $\text{Hg}^{2+}$  Ions. Gargi Dhaka, Navneet Kaur, Jasvinder Singh, *J Fluorescence*, **2017**, 27, 1943-1948.

➤ **National / International Workshops & Seminars Attended:**

1. Participated in DBT Sponsored Workshop on Electrochemistry by Dr. Sagar Mitra, IIT Mumbai on 13<sup>th</sup> October, **2017** organized by Post Graduate Department of Chemistry, Mehr Chand Mahajan DAV College for Women, Sector 36-A, Chandigarh.
2. Attended Science Academies’ Lecture Workshop on ‘Chemistry and its Multidisciplinary Facets’ organized by Post Graduate Department of Chemistry, Mehr Chand Mahajan DAV College for Women, Sector 36-A, Chandigarh in Association with Indian Academy of Sciences, Bangalore, Indian National Science Academy, New Delhi and The National Academy of Sciences, Allahabad on 24<sup>th</sup>-25<sup>th</sup> October, **2017**.
3. Participated in two day International Conference on ‘Soul in Symphony: Spiritual and Pragmatic Aspects of Happiness’ held at MCM-DAV College for Women, Chandigarh on January 29<sup>th</sup> and 30<sup>th</sup>, **2018**

**Dr. Shruti Chabba**

➤ **Research Publications:**

1. Probing molecular interactions of tetracaine with surface active ionic liquid and subsequent formation of vesicle in aqueous medium. Rajni Vashisht, Shruti Chabba, R. K. Mahajan, *J. Mol. Liq.* **2017**, 243, 503-512.
2. Pluronic-SAILs (surface active ionic liquid) mixed micelles as efficient hydrophobic quercetin drug carriers. Pankaj Singla, Onkar Singh, Shruti Chabba, R. K. Mahajan, *J. Mol. Liq.* **2018**, 249, 294-303.
3. Sodium deoxycholate mediated enhanced solubilization and stability of hydrophobic drug clozapine in pluronic micelles. Pankaj Singla, Onkar Singh, Shruti Chabba, R. K. Mahajan, *Spectrochim. Acta*, **2018**, 191, 143-154.

➤ **National / International Workshops & Seminars Attended:**

1. Participated in DBT Sponsored Workshop on Electrochemistry by Dr. Sagar Mitra, IIT Mumbai on 13<sup>th</sup> October, **2017** organized by Post Graduate Department of

Chemistry, Mehr Chand Mahajan DAV College for Women, Sector 36-A, Chandigarh.

2. Attended Science Academies' Lecture Workshop on 'Chemistry and its Multidisciplinary Facets' organized by Post Graduate Department of Chemistry, Mehr Chand Mahajan DAV College for Women, Sector 36-A, Chandigarh in Association with Indian Academy of Sciences, Bangalore, Indian National Science Academy, New Delhi and The National Academy of Sciences, Allahabad on 24<sup>th</sup>-25<sup>th</sup> October, **2017**.
3. Participated in two day International Conference on 'Soul in Symphony: Spiritual and Pragmatic Aspects of Happiness' held at MCM-DAV College for Women, Chandigarh on January 29<sup>th</sup> and 30<sup>th</sup>, **2018**.

#### **Dr. Priya Vashisht**

##### **➤ Research Publications:**

1. 10-Phenanthroline based ESIPT sensor for cascade recognition of Cu<sup>2+</sup> and CN ions. Navneet Kaur, Gaganpreet Kaur, Priya Alreja, *J. Photochem. Photobiol. Chem. A*, **2018** 353, 138-142.
2. Replacing 1, 10-phenanthroline fluorophore with benzil: A structural modification for selectivity. Priya Alreja, Navneet Kaur, *J. Lumin.*, **2018**, 194, 692-699.
3. Modulation in photophysical properties of fluorescent imidazole possessing 1, 10-phenanthroline on introduction of Ru(bipy)<sub>2</sub><sup>2+</sup> towards cation sensing. Priya Alreja, Navneet Kaur, *Chemistry Select*, **2017**, 2, 8638-8642.

##### **➤ National / International Workshops & Seminars Attended:**

1. Participated in DBT Sponsored Workshop on Electrochemistry by Dr. Sagar Mitra, IIT Mumbai on 13<sup>th</sup> October, **2017** organized by Post Graduate Department of Chemistry, Mehr Chand Mahajan DAV College for Women, Sector 36-A, Chandigarh.
2. Attended Science Academies' Lecture Workshop on 'Chemistry and its Multidisciplinary Facets' organized by Post Graduate Department of Chemistry, Mehr Chand Mahajan DAV College for Women, Sector 36-A, Chandigarh in Association with Indian Academy of Sciences, Bangalore, Indian National Science Academy, New Delhi and The National Academy of Sciences, Allahabad on 24<sup>th</sup>-25<sup>th</sup> October, **2017**.

3. Participated in two day International Conference on ‘Soul in Symphony: Spiritual and Pragmatic Aspects of Happiness’ held at MCM-DAV College for Women , Chandigarh on January 29<sup>th</sup> and 30<sup>th</sup>, **2018**.

**Dr. Shweta**

➤ **Research Publications:**

1. Ultrasensitive and selective sensing of selenium using nitrogen-rich ligand interfaced carbon quantum dots. Pooja Devi, Anupama Thakur, Shweta Chopra, Navneet Kaur, Praveen Kumar, Narinder Singh, Mahesh Kumar, Sonnada Math Shivaprasad, and Manoj K. Nayak, *ACS Applied Material and Interfaces*, **2017**, 9, 13448-13456.
2. Organic Nanoparticles for visual detection of spermidine and spermine in vapors and aqueous phase. Shweta Chopra, Amanpreet Singh, P. Venugopalan, Narinder Singh, and Navneet Kaur, *ACS Sustainable Chemistry and Engineering*, **2017**, 5, 1287-1296.

➤ **National / International Workshops & Seminars Attended:**

1. Presented a poster in national seminar on “Emerging Trends in Nanoscience and Nanotechnology” held at Guru Gobind Singh College for Women Sector 26, Chandigarh in February **2017** and was awarded second prize.
2. Participated in DBT Sponsored Workshop on Electrochemistry by Dr. Sagar Mitra, IIT Mumbai on 13<sup>th</sup> October, **2017** organized by Post Graduate Department of Chemistry, Mehr Chand Mahajan DAV College for Women, Sector 36-A, Chandigarh.
3. Attended Science Academies’ Lecture Workshop on ‘Chemistry and its Multidisciplinary Facets’ organized by Post Graduate Department of Chemistry, Mehr Chand Mahajan DAV College for Women, Sector 36-A, Chandigarh in Association with Indian Academy of Sciences, Bangalore, Indian National Science Academy, New Delhi and The National Academy of Sciences, Allahabad on 24<sup>th</sup>-25<sup>th</sup> October, **2017**.
4. Participated in two day International Conference on ‘Soul in Symphony: Spiritual and Pragmatic Aspects of Happiness’ held at MCM-DAV College for Women , Chandigarh on January 29<sup>th</sup> and 30<sup>th</sup>, **2018**.

**Dr. Swatika****➤ National / International Workshops & Seminars Attended:**

1. Participated in DBT Sponsored Workshop on Electrochemistry by Dr. Sagar Mitra, IIT Mumbai on 13<sup>th</sup> October, **2017** organized by Post Graduate Department of Chemistry, Mehr Chand Mahajan DAV College for Women, Sector 36-A, Chandigarh.
2. Attended Science Academies' Lecture Workshop on 'Chemistry and its Multidisciplinary Facets' organized by Post Graduate Department of Chemistry, Mehr Chand Mahajan DAV College for Women, Sector 36-A, Chandigarh in Association with Indian Academy of Sciences, Bangalore, Indian National Science Academy, New Delhi and The National Academy of Sciences, Allahabad on 24<sup>th</sup>-25<sup>th</sup> October, **2017**.
3. Participated in two day International Conference on 'Soul in Symphony: Spiritual and Pragmatic Aspects of Happiness' held at MCM-DAV College for Women , Chandigarh on January 29<sup>th</sup> and 30<sup>th</sup>, **2018**.

**Dr. Aastha Kuhad****➤ National / International Workshops & Seminars Attended:**

1. Participated in DBT Sponsored Workshop on Electrochemistry by Dr. Sagar Mitra, IIT Mumbai on 13<sup>th</sup> October, **2017** organized by Post Graduate Department of Chemistry, Mehr Chand Mahajan DAV College for Women, Sector 36-A, Chandigarh.
2. Attended Science Academies' Lecture Workshop on 'Chemistry and its Multidisciplinary Facets' organized by Post Graduate Department of Chemistry, Mehr Chand Mahajan DAV College for Women, Sector 36-A, Chandigarh in Association with Indian Academy of Sciences, Bangalore, Indian National Science Academy, New Delhi and The National Academy of Sciences, Allahabad on 24<sup>th</sup>-25<sup>th</sup> October, **2017**.
3. Participated in two day International Conference on 'Soul in Symphony: Spiritual and Pragmatic Aspects of Happiness' held at MCM-DAV College for Women , Chandigarh on January 29<sup>th</sup> and 30<sup>th</sup>, **2018**.

**Ms. Arunima****➤ National / International Workshops & Seminars Attended:**

1. Participated in DBT Sponsored Workshop on Electrochemistry by Dr. Sagar Mitra, IIT Mumbai on 13<sup>th</sup> October, **2017** organized by Post Graduate Department of Chemistry, Mehr Chand Mahajan DAV College for Women, Sector 36-A, Chandigarh.
2. Attended Science Academies' Lecture Workshop on 'Chemistry and its Multidisciplinary Facets' organized by Post Graduate Department of Chemistry, Mehr Chand Mahajan DAV College for Women, Sector 36-A, Chandigarh in Association with Indian Academy of Sciences, Bangalore, Indian National Science Academy, New Delhi and The National Academy of Sciences, Allahabad on 24<sup>th</sup>-25<sup>th</sup> October, **2017**.
3. Participated in two day International Conference on 'Soul in Symphony: Spiritual and Pragmatic Aspects of Happiness' held at MCM-DAV College for Women , Chandigarh on January 29<sup>th</sup> and 30<sup>th</sup>, **2018**.

**Ms. Swati**

➤ **National / International Workshops & Seminars Attended:**

1. Participated in DBT Sponsored Workshop on Electrochemistry by Dr. Sagar Mitra, IIT Mumbai on 13<sup>th</sup> October, **2017** organized by Post Graduate Department of Chemistry, Mehr Chand Mahajan DAV College for Women, Sector 36-A, Chandigarh.
2. Attended Science Academies' Lecture Workshop on 'Chemistry and its Multidisciplinary Facets' organized by Post Graduate Department of Chemistry, Mehr Chand Mahajan DAV College for Women, Sector 36-A, Chandigarh in Association with Indian Academy of Sciences, Bangalore, Indian National Science Academy, New Delhi and The National Academy of Sciences, Allahabad on 24<sup>th</sup>-25<sup>th</sup> October, **2017**.
3. Participated in two day International Conference on 'Soul in Symphony: Spiritual and Pragmatic Aspects of Happiness' held at MCM-DAV College for Women , Chandigarh on January 29<sup>th</sup> and 30<sup>th</sup>, **2018**.

**Ms. Anu**

➤ **National / International Workshops & Seminars Attended:**

1. Participated in DBT Sponsored Workshop on Electrochemistry by Dr. Sagar Mitra, IIT Mumbai on 13<sup>th</sup> October, **2017** organized by Post Graduate Department

- of Chemistry, Mehr Chand Mahajan DAV College for Women, Sector 36-A, Chandigarh
2. Attended Science Academies Lecture Workshop on ‘Chemistry and its Multidisciplinary Facets’ organized by Post Graduate Department of Chemistry, Mehr Chand Mahajan DAV College for Women, Sector 36-A, Chandigarh in Association with Indian Academy of Sciences, Bangalore, Indian National Science Academy, New Delhi and The National Academy of Sciences, Allahabad on 24<sup>th</sup>-25<sup>th</sup> October, **2017**.
  3. Participated in two day International Conference on ‘Soul in Symphony: Spiritual and Pragmatic Aspects of Happiness’ held at MCM-DAV College for Women , Chandigarh on January 29<sup>th</sup> and 30<sup>th</sup>, **2018**.

**Ms. Shivani**

➤ **Research Publications:**

1. Berry, S.; Bari, S. S.; Banik, B. K.; Bhalla, A. “Stereoselective synthesis of novel monocyclic *trans*-3-halogenated-4-pyrazolyl- $\beta$ -lactams: Potential synthons and promising biologically active agents” Synth. Commun. **2017**, 47, 2239-2246. ISSN No. 0039-7911.
2. Magtoof, M. S.; Berry, S.; Bari, S. S.; Banik, B. K.; Bhalla, A. “Facile synthesis of novel racemic 3-methoxy- and 3-phthalimido-1-(4'-*N*, *N*-diethylaminophenyl)-substituted  $\beta$ -lactams” Asian J. Org. Med. Chem. 2(3), **2017**, 97-101. ISSN No. 2456-8937.
3. Bhalla, A.; Modi, G.; Bari, S. S.; Kumari, A.; Berry, S.; Hundal, G. “Stereoselective synthesis of novel C-3 functionalized 3-sulfonyl- $\beta$ -lactams: Promising biologically active heterocyclic scaffolds” Tetrahedron Lett. 58, 1160-1165, **2017** ISSN No. 0040-4039,
4. Bhalla, A.; Modi, G.; Bari, S. S.; Kumari, A.; Narula, D.; Berry, S. “An investigation towards the diastereoselective synthesis of 3-acetoxy/methoxy/phthalimido- $\beta$ -lactams using chiral imines” Tetrahedron: Asymmetry 28, 307-316, **2017** ISSN No.
5. Facile Synthesis of novel  $\alpha$ -methylene – pyrazole- carboxylate substituted imines and trans- $\beta$ -lactams: Versatile synthons for diverse heterocyclic molecules. Qudrat Hundal, Shivani Berry, Shamsher S. Bari, Aman Bhalla. **2018**, Synthetic Communications: In Press



➤ **National / International Workshops & Seminars Attended:**

1. Stereoselective synthesis of novel pyrazole linked azetidin-2-one and their C-3 functionalization: Aman Bhalla, S. S. Bari, Apurva Panjla and Shiwani Berry presented in Achievements of Women in Science and Technology: Current Scenario and Future Prospects held on January 13<sup>th</sup>-14<sup>th</sup>, **2017** in Panjab University, Chandigarh.
2. Highly stereoselective synthesis of pyrazole substituted  $\beta$ -lactams *via* in situ generation of a heterosubstituted ketene and their C-3 functionalization: Aman Bhalla, S. S. Bari and Shiwani Berry presented in Prof. Ram Chand Paul National Symposium on Current Advances in Chemical Sciences held from February 24<sup>th</sup> -25<sup>th</sup>, **2017** at Department of Chemistry, Panjab University, Chandigarh.
3. Stereo-selective synthesis of novel monocyclic *trans*-3-PhS-4-pyrazolyl- $\beta$ -lactams and their C-3 functionalization: Aman Bhalla, S. S. Bari and Shiwani Berry presented in International Conference on Green Chemistry/Engineering and Technologies for Sustainable Development held from April 20<sup>th</sup> -22<sup>nd</sup>, **2017** at Department of Chemistry, Panjab University, Chandigarh.
4. Participated in two day International Conference on ‘Soul in Symphony: Spiritual and Pragmatic Aspects of Happiness’ held at MCM-DAV College for Women, Chandigarh on January 29<sup>th</sup> and 30<sup>th</sup>, **2018**.

**Student’s Achievements**

**At National Level**

S.No	Seminar	Student Name	Class	Topic
1.	CHASCON, P.U	Vishruti Sharma, Nistha Jain	BSc-III (Non-Med)	Eco-enzyme-A garbage enzyme being used as organic cleanser
2.	CHASCON, P.U	Himani Phogat, Asha	BSc-II (Non-Med)	Evaluation of buffer capacity of various soft drinks, Fruit juices and beverages
3.	CHASCON, P.U	Shivi, Richa, Jasmine, Kanak	BSc-I (Non-Med)	Estimation of oxalate content in raw and ripened guava
4.	R. C. Paul Symposium, P.U	Rijuta, Sunidhi Gurkamal,	BSc-II (Non-Med)	Extraction and comparison of saponification values of different seed oils



		Kiranveer	MSc-I	
5.	R. C. Paul Symposium, P.U	Riya Gupta	BSc-I (Med)	Comparison of oxalate content in raw and ripened guava

### Intra College and Intercollege Competitions

S.No	Name of the students	Event	Institute	Position
1.	Prachi, Jyotika, Garima, Navneet	Collage Making	Dr. Ambedkar Institute of Hotel Management	Participation
2.	Shivani, Anjali, Poonam, Anushka, Vanshika, Ritu Singh	Brand Quiz (Melange Fest)	MCM DAV College for Women	III <sup>rd</sup>
3.	Ritu Singh	1. Youth Parliament 2. MIMASHA 3. Health Awareness HIV AIDS Poster making	1. PGIMER, Chd 2. IISER, Mohali 3. PGGC-42	1. Participation 2. Participation 3. Participation
4.	Vishruti Sharma, Mahima, Nishta Jain,	International conference on Soul in Symphony-Spiritual and pragmatic aspect of Happiness.	MCM- DAV College for Women	Participation
5.	Vishruti Sharma, Sakshi kumara, Nishta Jain, Bhavna Saini	Science Academies lecture workshop on Chemistry and its Multidisciplinary Facets	MCM- DAV College for Women	Participation
6.	Tammana	Inter-College Fencing Championship	P.U	Bronze- Medal
7.	Tabassum Khan	1. Tug of War 2. Slogan Writing- Environmental Science	MCM- DAV College for Women MCM- DAV College for Women	III <sup>rd</sup>  II <sup>nd</sup>

		3. Eureka Fest-Pencil Sketch 4. Soch Fest-Nukkad Natak 5. College Drill 6. Inter-College Drill	MCM- DAV College for Women P.U. Chandigarh MCM- DAV College for Women P.U. Chandigarh	I <sup>st</sup> I <sup>st</sup> I <sup>st</sup> I <sup>st</sup>
8.	Dolfy, Komal Sunaria, Manisha Sahu, Sakshi, Shubra Rai	Science Fest Dance Competetion	MCM- DAV College for Women	II <sup>nd</sup>
9.	Parampreet Kaur	1. Intercollege Tug of War 2. Annual Sports Day 3. College Drill 4. Inter-college Drill	P.U. Chandigarh MCM- DAV College for Women MCM- DAV College for Women P.U. Chandigarh	II <sup>nd</sup> II <sup>nd</sup> I <sup>st</sup> I <sup>st</sup>
10.	Minakshi Kapoor	Merit-cum-Means College Scholarship	MCM- DAV College for Women	Received Scholarship of Rs 25000.
11.	Palak	Inspire Scholarship for Higher Education	MCM- DAV College for Women	Scholarship of 60,000 per Year.

**Department of Botany:**

**Student(s) achievements**

### **I. Meenal – B.Sc. (III) Medical**

- **Bagged second prize** in *Poster presentation* under **plant science section** in 12<sup>th</sup> Chandigarh Science Congress (CHASCON), February 12-14, 2018. Organized by Panjab University, Chandigarh with Chandigarh Region Innovation and Knowledge cluster (CRIKC)
- Qualified Indian Institute of Technology Joint admission test (IIT JAM - 2018) in biological sciences (BL) – AIR 546

### **II. Sonam Sihag - B.Sc. (III) Medical**

- **Bagged consolation prize** in *Poster presentation* under **plant science section** in 12<sup>th</sup> Chandigarh Science Congress (CHASCON), February 12-14, 2018. Organized by Panjab University, Chandigarh with Chandigarh Region Innovation and Knowledge cluster (CRIKC).

### **III. Aastha Singla - B.Sc. (III) Medical**

- Qualified Indian Institute of Technology Joint admission test (IIT JAM - 2018) in biological sciences (BL) – AIR 16;
- Qualified IIT JAM – 2018 in biotechnology (BT) – AIR 10
- Qualified Jawaharlal Nehru Combined Biotechnology Entrance Examination (JNU CEEB - 2018) - AIR 4
- Selected in Jawaharlal Nehru Entrance Examination for M.Sc. in Life science (JNU EEB - 2018)
- Qualified Joint Graduate Entrance Examination for Biology and Interdisciplinary Life Sciences (JGEEBILS – 2018)
- Got an interview call from Indian Institute of Science (IISC), Bangalore for Integrated PhD programme in Department of Biological Sciences
- Got an interview call from National Brain Research Centre (NBRC), Manesar-Gurugram for M.Sc. in Neuroscience.
- Got an interview call from IISER Pune for Integrated PhD programme in Department of Biological Sciences
- Selected for Integrated-Ph.D program in Department of Biological Sciences, Tata Institute of Fundamental Research (TIFR), Mumbai

### **IV. Aarzoo Jindal - B.Sc. (III) Medical**

- Qualified Jawaharlal Nehru Combined Biotechnology Entrance Examination (JNU CEEB - 2018) - AIR 91
- Got an interview call from Indian Institute of Science (IISC), Bangalore for Integrated PhD programme in Department of Biological Sciences
- Got an interview call from Indian Institute of Science Education and Research (IISER) Mohali for Integrated PhD programme in Department of Biological Sciences
- Qualified Indian Institute of Technology Joint admission test (IIT JAM - 2018) in biological sciences (BL) – AIR 22
- Qualified Indian Institute of Technology Joint admission test (IIT JAM - 2018) in biotechnology (BT) – AIR 52

## V. Shivani

- Qualified Indian Institute of Technology Joint admission test (IIT JAM - 2018) in Chemistry – AIR 475
- Qualified Indian Institute of Technology Joint admission test (IIT JAM - 2018) in biological sciences
- Qualified Joint Graduate Entrance Examination for Biology and Interdisciplinary Life Sciences (JGEEBILS – 2018) for National Center for Biological Sciences (NCBS), Bangalore; Tata Institute of Fundamental research (TIFR) Center for Interdisciplinary Sciences (TCIS) Hyderabad; Indian Institute of Science Education and Research (IISER) Pune
- Got an interview call from Indian Institute of Science (IISc), Bangalore for Integrated PhD programme in Department of Chemical Sciences

## VI. Bindia

- Qualified Indian Institute of Technology Joint admission test (IIT JAM - 2018) in biological sciences (BL) – AIR 340
- Qualified Jawaharlal Nehru Combined Biotechnology Entrance Examination (JNU CEEB - 2018) - AIR 136

### Faculty Achievements:

#### I. Dr. Purnima Bhandari

Publications	
S.No	Title
i.	<b>Bhandari P.</b> and Garg, N. 2017 Dynamics of Arbuscular Mycorrhizal Symbiosis and Its Role in Nutrient Acquisition: An Overview. <i>In: Mycorrhiza - Nutrient Uptake, Biocontrol, Eco restoration</i> , (eds.) Varma A., Prasad R., Tuteja N., Springer, Cham, Switzerland, pp. 21-43.
ii.	<b>Bhandari, P.</b> and Garg, N. 2017. Arbuscular Mycorrhizal Symbiosis: A Promising Approach for Imparting Abiotic Stress Tolerance in Crop Plants. <i>In: Plant-Microbe Interactions in Agro-Ecological Perspectives</i> , (eds.) Singh, D., Singh, H. and Prabha, R., Springer, Singapore, pp. 377-402.
iii.	Garg, N., <b>Bhandari, P.</b> , Kashyap, L. and Singh, S. 2017. Arbuscular mycorrhizal symbiosis: A boon for sustainable legume production under salinity and heavy metal stresses. <i>In: MYCORRHIZAL FUNGI</i> , (eds.) Aggarwal, A. and Yadav, K., Astral International Pvt., Ltd, New Delhi, pp. 247-273.

Presentation in National/International Conference	
S.No	Title
i.	Meenal and <b>Bhandari, P.</b> 2018. Nitric oxide alleviates NaCl-induced

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oxidative stress by upregulating defense response in *Cicer arietinum* L. genotypes. *In*: 12<sup>th</sup> Chandigarh Science Congress (CHASCON), February 12-14, 2018. Organized by Panjab University, Chandigarh with Chandigarh Region Innovation and Knowledge cluster (CRIKC). **Poster presentation**

- ii. Sihag, S. and **Bhandari, P.** 2018. Modulatory role of exogenous glucose on germination characteristics and early seedling growth of differentially tolerant chickpea genotypes under salt stress *In*: 12<sup>th</sup> Chandigarh Science Congress (CHASCON), February 12-14, 2018. Organized by Panjab University, Chandigarh with Chandigarh Region Innovation and Knowledge cluster (CRIKC). **Poster presentation**
  - iii. **Bhandari, P.** and Garg, N. 2017. Silicon nutrition augments plant vigour, ionic homeostasis and defense mechanisms in mycorrhizal *Cicer arietinum* L. genotypes under salt stress. *In*: 7<sup>th</sup> International Conference on Silicon in Agriculture. Organized by University of Agricultural sciences, Bengaluru, on 24-28 October 2017, Bengaluru, India. **Oral presentation.**
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## II. Dr. Geetika Singh

### Presentation in National/International Conference

S.No	Title
i.	Singh, G. and Puri, Richa. 2017. Seed invigoration techniques to improve germination of Bamboo seeds. <i>In</i> : “International conference on Plant systematic: Priorities and challenges” in New Delhi. November 10-12, 2017. <b>Poster presentation.</b>

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## III. Dr. Gunjan Sud

### Publications

S.No	Title
i.	Gunjan Sud (2017). First record of <i>Prenanthes aitchisoniana</i> (Beauv.) Roohi Bano & Qaiser (Asteraceae) from India. <b>Check List</b> . Vol 13 (2).
ii.	Gunjan Sud (2017). Additions to the family Asteraceae of Una district, Himachal Pradesh. <b>Journal of Economic and Taxonomic Botany</b> . 40 (1-2): 65-70.

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## Department of Physics:

### Students and faculty achievements:

- i. Nineteen (19) students of BSc-NM III got selected through campus placement in Infosys for the post of operation executive.
- ii. Sixteen (16) students of BSc –NM III got selected through campus placement

drive in Wipro for the post of Trainee. They will also be offered Masters degree through BITS Pilani.

- iii. Two (2) students of BSc-NM III got selected through campus placement drive in Convergys for the post of executive.
- iv. Seven (7) students of BSc NM III qualified IIT JAM exam held in the session 2017-18.
- v. One of BSc NM III student Radhika Goel got All India rank of 166 in IIT JAM exam.
- vi. Three of our students were selected for training programme in (Inter University Centre) IUC Indore during summer vacations.
- vii. Students of BSc-NM presented posters in CHASCON 2018, Punjab University, Chandigarh.
- viii. Students of Department of Physics won prizes in ‘Doaba Science Fest’ held at DOABA college, Jalandhar on Feb 23, 2017
  - Sonika Rana BSc I : 1<sup>st</sup> prize in Sciencetoon
- ix. Students of Department of Physics participated in International workshop on Shock waves organized by PGGCG, Sector 11, Chandigarh on Feb 24, 2018 and Feb 25, 2018.

Faculty of Physics department prepared LAB MANUAL

- i) “Users Manual for Practical Physics”, B.Sc.I and B.Sc II

These manuals are strictly according to the prescribed syllabus of Panjab University.

Teachers of the Department published following books/ research publications

- “Statistical and Thermodynamics” for B.Sc II  
by Dr. Renu Bedi.
- “Quantum Physics” for B.Sc II and “ Mechanics” for B.Sc I  
by Raman Chadha.
- “Nuclear Physics” for B.Sc III  
by Poonam Jain.
- Lab Manual for Practical Physics B.Sc I  
Dr. Renu Bedi, Ms. Raman Chadha and Ms. Poonam Jain

- Lab Manual for Practical Physics B.Sc II  
Dr. Renu Bedi, Ms. Raman Chadha and Ms. Poonam Jain

**Faculty publications of Department of Physics:**

**“Sustained Best Practices in Higher Education – A case study of MCM DAV College for Women Chandigarh”** Authors: Dr. Nisha Bhargave and Dr. Renu Bedi

Source : Academic & Administrative Audit: A Pre-Requisite for Quality Enhancement, PP 16-23.

**“Growth of Large-Area 2D MoS<sub>2</sub>Arrays at Pre-Defined Locations Using Stencil Mask Lithography”**

Authors: Intu Sharma, Yogita Batra, V. Flauraud, Jürgen Brugger, Bodh Raj Mehta,

Source: Journal of Nanoscience and Nanotechnology, Volume 18, pp. 1824-1832(9) 2018

Publisher: American Scientific Publishers

**“Dependence of Structure factor and correlation energy on the width of electron wires”**

Authors: Vinod Ashokan, Renu Bala, Klaus Morawetz, Kare Narain Pathak

Journal: The European Physical Journal B (EPJ B), 2018

**Dr. Renu Bala presented poster in Workshop on Fundamentals on Quantum Transport** from 7 August-11 August 2017 at ICTP, Trieste, Italy

**“Low energy oblique ion beam sputtering induced surface engineering of Polyethylene terephthalate”**

Authors: Meetika Goyal, Sanjeev Aggarwal and Annu Sharma,

Journal of Ferroelectrics Vol. 84, 172 (2017).

**“Surface structuring in polypropylene using Ar<sup>+</sup> beam sputtering: Pattern transition from ripples to dot nanostructures”,**

Authors: Meetika Goyal, Sanjeev Aggarwal Annu Sharma and Sunil Ojha,

Source: Applied Surface Science Vol. 439, 380 (2018).

**Dr. Meetika Garg submitted Ph.D. thesis on “Studies on Argon Ion Induced Surface Structuring of Polymers”** with Prof. Sanjeev Aggarwal and Dr. Annu Sharma from Kurukshetra University, Kurukshetra.

**Dr. Kirandeep Kaur** presented research paper in International conference “Computational Strategies for Next Generation Technologies (NEXTCOM- 2017)” held at CT institute of Engineering, Management and Technology. Jalandhar on 25-26 November, 2017.

**Dr. Renu Bedi:**

- 1) Member of Choice based credit system (CBCS) committee in Department of Physics, Punjab University.
- 2) Member of Board of Studies, Panjab University, Chandigarh.
- 3) Appointed paper setter for under graduate classes.
- 4) Actively involved in social work with **Handicapped Society**, Sector 12-A, Panchkula.

**Mrs. Raman Chadha**

- 1) Pursuing PhD in the field of Nanotechnology.
- 2) Organized various medical camps and lectures by eminent doctors and medical experts in the college.

**Mrs. Poonam Jain**

- 1) Member of Choice based credit system (CBCS) committee in Department of Physics, Punjab University.
- 2) Pursuing PhD in the field of Nanotechnology.
- 3) Paper setter for University Examinations.

**Dr. Yogita**

- 1) Attended 114<sup>th</sup> orientation course conducted by HRDC, Punjab University from 2.5.17 to **29.5.17**.
- 2) She is a core member of Placement Cell and coordinator of Infosys placement drive. 25 students from college and 20 students of BSc III NM got selected for Infosys and were offered placement in Infosys as operation executive.

**Dr. Renu Bala**

- 1) **Attended School on Fundamentals on Quantum Transport** from 31 July - 4 August 2017 at ICTP, Trieste, Italy.
- 2) **She was an invited speaker in International conference on Condensed Matter Physics, held at PRL Ahmedabad during March 2018.**

**Department of Zoology:**

**Students' Achievements:**

➤ **Aastha Singla (B.Sc. III Medical)**

- Qualified Indian Institute of Technology Joint admission test (**IIT JAM-2018**) in biological sciences (**BL**) with **All India Rank (AIR)- 16**
- Qualified **IIT JAM – 2018 (BT)- AIR 10**



- Qualified Jawaharlal Nehru Combined Biotechnology Entrance Examination (JNU CEEB- 2018)- **AIR 4**
- Selected in Jawaharlal Nehru Entrance Examination for M.Sc. in Life science (JNU EEB-2018)
- Qualified Joint Graduate Entrance Examination for Biology and Interdisciplinary Life Sciences (JGEEBILS-2018)
- Got an interview call from **Indian Institute of Science (IISc), Bangalore** for Integrated PhD programme in Department of biological Sciences
- Got an interview call from **National Brain Research Centre (NBRC), Manesar-Gurugram** for M.Sc. in Neuroscience.
- Got an interview call from **IISER Pune** for Integrated PhD programme in Department of Biological Sciences
- Selected for Integrated-Ph.D. programme in Department of Biological Sciences, **Tata Institute of Fundamental Research (TIFR), Mumbai**

➤ **Aarzoo Jindal (B.Sc. III Medical)**

- Qualified Jawaharlal Nehru Combined Biotechnology Entrance Examination (JNU CEEB-2018)- **AIR- 91**
- Got an interview call from **Indian Institute of Science (IISc), Bangalore** for Integrated PhD programme in Department of Biological Sciences
- Qualified Indian Institute of Technology Joint admission test (IIT JAM-2018) in biological sciences (BL)- **AIR- 22**
- Qualified Indian Institute of Technology Joint admission test (IIT JAM-2018) in biotechnology (BT)- **AIR- 52**
- Got an interview call from **Indian Institute of Science Education & Research (IISER), Mohali** for Integrated PhD programme

➤ **Shivani (B.Sc. III Medical)**

- Qualified Indian Institute of Technology Joint admission test (IIT JAM-2018) in Chemistry- **AIR- 475**
- Qualified Indian Institute of Technology Joint admission test (IIT JAM-2018) in Biological sciences
- Qualified Joint Graduate Entrance Examination for Biology and Interdisciplinary Life Sciences (JGEEBILS-2018) for National Center for biological Sciences (NCBS), Bangalore; Tata Institute of Fundamental research (TIFR), Mumbai, Center for Interdisciplinary Sciences (TCIS) Hyderabad; Indian Institute of Science Education and Research (IISER) Pune
- Got an interview call from **Indian Institute of Science (IISc), Bangalore** for Integrated PhD programme in Department of Chemical Sciences

➤ **Bindia (B.Sc. III Medical)**

- Qualified Indian Institute of Technology Joint admission test (**IIT JAM-2018**) in biological sciences (BL)- **AIR- 340**
- Qualified Jawaharlal Nehru Combined Biotechnology Entrance Examination (JNU CEEB-2018)- **AIR- 136**

➤ **Meenal (B.Sc. III Medical)**

- Qualified Indian Institute of Technology Joint admission test (**IIT JAM-2018**) in biological sciences (BL)- **AIR- 546**

➤ **Aarzoo, Piyush, Shweta** of B.Sc. III Medical won **third prize in poster presentation** on the topic “**The parasitic contamination of fresh water vegetables and fruits sold in Chandigarh**” during a competition in Chandigarh Science Congress (**CHASCON- 2018**) on the theme “Science and Society Interface: Exploration of cost effective and efficient technologies through Physical and Natural Sciences” organized by Panjab University, Chandigarh on Feb. 12-14, 2018.

➤ **Vanshika** of B.Sc. III Medical presented a poster on the topic “**Radioprotective potential of *Curcuma longa*: A study on beta radiation induced toxicity in *Drosophila melanogaster***” in CHASCON-2018.

➤ B.Sc. III Medical students participated in **theme dance competition** in DBT Sponsored **Doaba Scifiesta-2018** at Doaba College, Jalandhar on 15.02.2018 and won **overall best performance award**.

➤ B.Sc. Medical students participated in an inter-college event on “**AIDS and Healthy Life style**” organized by PG Govt. College for Girls, Sector-42, Chandigarh on 08.02.2018 and won **2<sup>nd</sup> prize in skit, 2<sup>nd</sup> prize in theme dance and 3<sup>rd</sup> prize in poster making competition**.

➤ **Parikha Banga** of B.Sc. I Medical and **Ritu Singh** of B.Sc. II Medical bagged **second prize** in an **inter-college quiz competition** on the theme “Our feathered friends” organized by department of Zoology, Panjab University, Chandigarh in collaboration with BHIM (NGO) and Sparrow Club of PGIMER, Chandigarh on 06.04.2018 during Sparrow day celebrations

#### ***FACULTY ACHIEVEMENTS***

➤ **Dr. Neetu & Dr. Sarabjeet Kaur** completed a **DST Sponsored Minor Research Project** entitled “Synthesis, characterization and evaluation of larvicidal potential of curcumin nanoparticles against the vector species of mosquitoes (Diptera: Culicidae)”.

- **Dr. Neetu** presented a paper entitled “**Genetic links to Happiness and Depression**” during an International Conference on “The Soul in Symphony: Spiritual and Pragmatic Aspects of Happiness” organized by MCM DAV College for Women, Sector 36-A, Chandigarh on Jan. 29-30, 2018.
- **Dr. Harpreet Kaur** presented a paper entitled “Protective efficacy and immunogenicity of 31kDa, 36kDa and 51kDa antigens of *Leishmania donovani* against murine visceral leishmaniasis” in a National conference ZOOCON-2018 held in Department of Zoology, Panjab University, Chandigarh from March 21-22, 2018 and was awarded second prize.
- **Dr. Radhika Sharma** published a paper. A. Kumar, **R. Sharma**, M. Arora and R. C. Gupta (2018). Biochemical analysis in patients with major depressive disorder in Jammu population. **International Journal of Pharmaceuticals and Research**, 9(1): 354-360.
- **Dr. Ravneet Kaur** published a paper. **R. Kaur**, D. Singh and H. Kaur (2017). Attribute of spermatheca as an authentic taxonomic tool in closely related species of predaceous asopine bugs (Suborder: Heteroptera). **International Journal of Zoological Studies**, 2(5): 192-194.
- **Dr. Harpreet Kaur** published a paper. **H. Kaur**, A. Thakur and S. Kaur (2018). Immunoprophylactic potential of a cocktail of three low molecular weight antigens of *Leishmania donovani* along with various adjuvants against experimental visceral leishmaniasis. **Iranian Journal of Parasitology**, 13(1): 11-23.

#### 19. LIST OF SHORT TERM TRAINING COURSES/WORKSHOPS CONDUCTED FOR STUDENTS AND FACULTY, INCLUDING TITLE, DURATION, NO. OF BENEFICIARIES

##### Department of Food Science:

Title	Duration	No. of participants		
		Students	Teachers	Lab Attendants
Training on “Youth Employability Skills” organized by Rajiv Gandhi National Institute of Youth Development (RGNIYD), Regional center, Chandigarh	17-21 July, 2017	B.Sc. MFT III [02]	-	-
Summer Training(Hands on training in various Food/Pharma Industries,	01 June-28 July , 2017	B.Sc. MFT II [59] BSc.(MFT)	-	-

Title	Duration	No. of participants		
		Students	Teachers	Lab Attendants
Institutes, Universities)		66		
2 <sup>nd</sup> National Conference on “Biotechnology Academic Industrial Interface” organized by Department of Biotechnology, CGC Landran and AMI, Chandigarh in September 2017	01-02 Sept,2017	BSc. MFT III [20]	1	-
Start up/stand up for potential young entrepreneurs organized in collaboration with Rajiv Gandhi National Institute of Youth Development (RGNIYD), Regional centre, Chandigarh [Annexure – VIII]	10-13 Oct, 2017	B.Sc. MFT II [58]	4	0
Workshop on “Awareness Generation & Dissemination of Knowledge & Skills about Recent Advances in Nutrition & Safety” catalysed and supported by Rashtriya Vigyan Evam Prodyogiki Sanchar Parishad, DST and Star college Scheme, DBT, Ministry of Science and Technology and organized by School of Public Health, PGIMER, Chandigarh [Annexure IX]	23 Nov 2017	B.Sc. MFT (I, II, III) [135]	4	2
Workshop on “ Hands on Training on Edible Cutlery”	7 Feb 2018	B.Sc. MFT III [60]	6	2

Title	Duration	No. of participants		
		Students	Teachers	Lab Attendants
by Mr. Shantanu Gupta; Consultant and FSSAI certified Trainer from Green Food Consultant, New Delhi				
One day Workshop on “Production of functional Bio- molecules from Probiotic bacteria” organized by Dairy Microbiology Department, National Dairy Research Institute (NDRI), Karnal [Annexure-X]	15 Mar 2018	B.Sc. MFT III [41]	2	-
Three day workshop on “Entrepreneurship Programme” organized in collaboration with Regional Centre for Entrepreneurship Development (RCED), Chandigarh sponsored by Directorate of Industries [Annexure-XI]	26-28Mar 2018	B.Sc. MFT I & II [69]	5	1

**Department of Chemistry:**

S.No	Topic	Date	Speaker	No of beneficiaries
1	DST Sponsored Science Exhibition on “Science past and Future	17 <sup>th</sup> March, 2018	Dr. Anshuman Roy Choudhary , IISER Mohali	60
2	Workshop on Electrochemistry	13 <sup>th</sup> October, 2017	Dr. Sagar Mitra, IIT Mumbai	50
3	National Symposium on Future Avenues in Chemistry	20-21 <sup>st</sup> July 2018	1. Prof. Debi P. Sarkar Director, IISER, Mohali 2. Prof. S. K. Mehta Director SAIF/CIL and	100

	(Applied to DST-SERB)		Professor, Department of Chemistry, Panjab University, Chandigarh. 3. Dr. Sanjay Trehan President Panacea Biotech 4. Dr. Sanyag Jain, Associate Professor, NIPER Mohali	
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### Department of Botany

S. No	Speaker's Name	Designation	Title of the lecture	No. of Students	Date
1.	Dr. Promila Pathak	Professor, Dept. of Botany, Panjab University, Chandigarh	Plant Tissue culture	100	28 <sup>TH</sup> October, 2017

### Department of Physics:

Theoretical knowledge coupled practical exposure is quintessential to provide an edge to the students in this era of cut-throat competition. Guided by this dictum, Department of Physics, organised the following activities for the students:

#### **I. Workshop on automation and control**

A one two workshop of 'automation and control' was organized by Department of Physics on October 24-25, 2017. About forty (40) students and all faculty members of Department of Physics took part in the workshop. Mr. Lalitesh Kumar from Sofcon Pvt. Ltd. was the resource person. Students were taught to make various automation projects using Arduino technology. This workshop was organized in collaboration with National skill development cooperation (NSDC), Government of India.

**Impact:** The activity proved extremely beneficial in imparting practical knowledge, thereby creating better understanding of the subject of automation and control in students and their skill development. The main motive of the workshop was to inculcate scientific temperament in the students and teach them to make various automation projects at low cost.

#### **II. 'Eureka'**

With a vision to promote Physics as well as to provide the students a platform for showcasing their talent, Department of Physics instituted **PHYSICS SOCIETY** having

students from all classes [B.Sc. (Non-medical and Vocational)]. A fun filled and educational event **EUREKA** was organised by Physics Society in the session 2017-18. About one hundred (100) students of UG classes participated in this Physics Fest. Prize Distribution was held on 19<sup>th</sup> March 2018. Mr Ashok Sharma chief Executive, Cleantech International Foundation, New Delhi and Mr Gurmeet Singh Gill, Agriculture Officer, Nabha, Distt. Patiala were guest of honour.

Following activities were organised:

- i. Poster Making
- ii. Power Point Presentations
- iii. Scientific cartoons
- iv. Working Models
- v. Idea Contest
- vi. Nature poetry

**Impact:** Students got the chance to show-case their talents in various activities related to Physics.

### **III. Workshop on experimental demonstration of Physics in daily lives**

A one day workshop experimental demonstration of Physics in daily lives will be organized by Department of Physics on March 16, 2018 in which Prof. M. S. Marwaha will be the resource person. Demonstrations on Physics in daily lives will be given to the students and faculty of Department of Physics.

**Impact:** This workshop has helped students learn and appreciate the role of Physics in day to day activities.

**IV. Demonstration on nano particle synthesis:** In order to acquaint our students to nanoparticle synthesis process, a demonstration cum training session was conducted on April 6, 2018. Eight (8) students of B.Sc II prepared CdS nanoparticle using cadmium sulphate, PVP, Ammonia solution, Thiourea etc.

**Impact:** Students got hands on experience to prepare CdS nanoparticles

### **Department of Zoology**

Session	Title of the workshop	Duration	No of Beneficiaries
2017-18	Limnological and biological investigations of an aquatic ecosystem	1 day	22 students (B.Sc. III Medical), 2 teachers, 1 Junior Lecture Assistant, 1 Laboratory Attendant

2017-18	Aquarium maintenance and Fish care	1 day	70 students (B.Sc. II & III Medical), 10 Teachers, 3 Junior Lecture Assistants, 5 Laboratory Attendants
2017-18	Fresh water pearl culture	1 day	45 students (B.Sc. III Medical), 02 Teachers, 01 Junior Lecture Assistant

**20. GUEST LECTURES (DETAILS LIKE NAME OF SCIENTIST, TOPIC, NO. OF STUDENTS) NUMBER OF STUDENTS**

**Department of Food Science:**

S. No	Speaker's Name	Designation	Title of the lecture	No. of Students	Date
1.	Dr. Amarjeet Singh	Professor, Community Medicine, PGIMER, Chandigarh	Special keynote lecture on Food Safety	58	10th-13rd Oct 2017
2.	Dr. Bharat	University of Legal Studies, Panjab University, Chandigarh	Law & Entrepreneurial Opportunities	58	10th-13rd Oct 2017
3	Mr. Rajneesh Mehra	Head-MBA; Gian Jyoti Institute of Management Technology, Mohali	Entrepreneurship Development: Go-to-Market Strategy	58	10th-13rd Oct 2017
4	Dr. Anil Kumar Angrish	Assistant Professor, NIPER, Mohali	Project Financing: Agencies and Modalities	58	10th-13rd Oct 2017
5	Mr. Pawan Kamra	Managing Director, Nutraceutex, Chandigarh Agritech Pvt. Ltd	SCF Extraction of Bio-Actives	58	10th-13rd Oct 2017
6	Mr. Sukhwinder Singh	Designated Officer, Food Safety Cell, UT	Food Fortification & Food Safety Initiatives by Chandigarh Administration	135	23 <sup>rd</sup> Nov, 2017
7	Prof. Sanjay Chhibber,	Professor, Dept. of Microbiology, Panjab University, Chandigarh	Special lecture on "Food Safety"	135	23 <sup>rd</sup> Nov, 2017
8	Dr. Sukhpal Kaur,	National Institute of Nursing Education, Chandigarh	Food Safety Definition/Concepts /Problem Statement	135	23 <sup>rd</sup> Nov, 2017



			Types and Gaps		
9	Dr. Jayanti Dutta Roy, Deputy Director	Human Resource Development Centre PU, Chandigarh	“Recent Advances; Use of IT in Food Safety; Concept of Traceability; Focus on Safety of GM Food”	135	23 <sup>rd</sup> Nov, 2017
10	Mr. Anish Slath ,	Assistant Professor University Institute of Hotel & Tourism Management, Panjab University, Chandigarh	HACCP System in Food Safety & Infection Control in Kitchen	135	23 <sup>rd</sup> Nov, 2017
11	Dr.Ruchi Chauhan	Assistant Professor, Department of Food Science, MCM DAV College for Women, Chandigarh	‘How to write Recommendation Letter for various Universities and Institutes’	66	26 <sup>th</sup> Feb, 2018
12	Dr.Sucheta Kakkar	Assistant Professor, Department of Food Science, MCM DAV College for Women, Chandigarh	“How to write research/review article”	66	15 <sup>th</sup> Jan 2018
13	Dr. Sudhir Kumar Tomar	Principal Scientist Technofunctional Starter Lab ICAR-NDRI, Karnal	“Production of functional Bio-molecules from Probiotic bacteria”	41	15 <sup>th</sup> March, 2018
14	Dr.Bindu Bazaria,	Assistant Professor, Department of Food Science, MCM DAV College for Women, Chandigarh	Application of Statistical tools for Data Authentication in Research	66	22 <sup>nd</sup> March, 2018
15	Dr. Paramjeet Singh	Principal Director, Regional Centre for Entrepreneurship Development (RCED), Chandigarh	Funding Agencies and their respective schemes esp. with respect to Women Entrepreneurs”	69	26 <sup>th</sup> March, 2018
16	Mr.Aman Uppal,	Head, International Markets, Reliance Technocrats	-----	69	26 <sup>th</sup> March, 2018
17	Prof. Amarjeet Singh	Community Medicine, PGIMER, Chandigarh	“ Food Safety Standards”	69	27 <sup>th</sup> March, 2018
18	Dr. Anil Angrish,	NIPER,Mohali	“INTRAprenurship”	69	27 Mar 2018
19	Mr.Sanjiv	(Regional Director,	Panel Discussion	69	28 <sup>th</sup> March,

	Verma	Petroleum Conservation Research Association (PCRA)	on Energy Conservation		2018
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#### Department of Chemistry:

S.No.	Guest Lecture	Topic	No. of students	Date
1.	Dr. Navneet Kaur, P.U, Chandigarh	Delivered a lecture on 'Applications of Organometallic reagents in Organic Synthesis'	60	16 <sup>th</sup> March 2017
2.	Dr. Shweta, P.U, Chandigarh	Delivered a lecture on 'Career Counselling'	100	22 <sup>nd</sup> March 2017
3.	Dr. Sugumar Venkataramani , IISER Mohali	Delivered a Lecture on 'Nuclear Magnetic Resonance-Spectral problem Solving'	60	12 <sup>th</sup> November 2017
6.	Dr. Navneet Kaur, P.U, Chandigarh	Lecture on 'Applications of Transition metal ions Organic Synthesis.'	65	6 <sup>th</sup> March 2018
7.	Dr. Anshuman Roy Choudhary , IISER Mohali	Delivered a Lecture on 'Symmetry of Molecules'	80	12 <sup>th</sup> March 2018

#### Department of Botany:

S. No	Speaker's Name	Designation	Title of the lecture	No. of Students	Date
1.	Dr. Promila Pathak	Professor, Dept. of Botany, Panjab University, Chandigarh	Plant Tissue culture	100	28 <sup>TH</sup> October, 2017

#### Department of Physics:

S. No	Speaker's Name	Designation	Title of the lecture	No of students	Date
1.	Prof. Ramandeep Johal	Professor at IISER, Mohali	New Experiments in Physics	60	8 <sup>th</sup> Nov, 2017
2.	Dr. Jacky Kumar	IISER Mohali	PhD prospects in Physics'	80	2 <sup>nd</sup> April 2018.
3	Director (Dr. Ravi Kumar)	London school of management education	Sustainable educational goals	75	9 <sup>th</sup> April, 2018.

	and Principal (Mrs. Sarita)	(LSME)			
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### Department of Zoology:

Session	Name of the Scientist	Title	No. of Students
2017-18	Prof. Gulshan Bansal, Department of Pharmaceutical Sciences and Drug Research, Punjabi University, Patiala	Drug abuse: Problems, prevention and management	200 (B.Sc. I, II & III Medical)
2017-18	Dr. Shaveta Gupta, Obst-Gynaecologist and Gynaec- Oncologist, Max Super Speciality Hospital, Mohali	Cancer Awareness	200 (B.Sc. I, II & III Medical)
2017-18	Dr. Abhed Pandey, College of Fisheries, GADVASU, Ludhiana	Fresh water pearl culture	45 students (B.Sc. III Medical)
2017-18	Dr. Shanthanagouda, College of Fisheries, GADVASU, Ludhiana	Fresh water prawn culture in India	45 students (B.Sc. III Medical)
2017-18	Ms. Shruti Kapoor, Placement and Faculty Incharge, Tech Mahindra Smart Academy for Health care, Mohali	Careers in Health care	160 students (B.Sc. I, II & III Medical)
2017-18	Dr. Vimal Bhutani, Biotech Sapiens, Chandigarh	Career options in Life Sciences	200 students (B.Sc. I, II & III Medical)

### 21. VISITS TO INDUSTRIES, INSTITUTES (name of place, duration of visit and no. of students)

#### Department of Food Science:

- Visit to Cremica Food Industries Ltd, Ludhiana on 14 Nov 2017

**Number of students = B.Sc. MFT III yr. = 66**

#### Department of Chemistry

Department of chemistry organized an industrial visit to **Vardhman industries** for B.Sc III students where the technique of fabric dying and spinning was demonstrated to them.

#### Department of Botany:

Session/Date	S.No.	Name of Place	Duration of Visit	No. of students
<b>2017-18 (24.02.2018)</b>	i.	Department of Plant Breeding and Genetics, Punjab Agricultural University, Ludhiana	1 day	45 students (B.Sc. III medical) + 2 teachers
	ii.	Soilless culture site, Department of Mechanical Engineering Punjab Agricultural University, Ludhiana.	1 day	45 students (B.Sc. III medical) + 2 teachers

**Department of Physics:**

S.No.	Visits (2017-18)	Duration of Visit	No. of students
1.	Central Scientific Instrumentation Organisation (CSIO), Sector 30, Chandigarh	One day	12
2.	Kurukshetra University	One day	20
3.	Science City, Kapurthala	One day	80
4.	Visit to Energy park, Sarangpur	One day	10
5.	Punjab Univeristy	One day	12
6.	IMTECH, Chandigarh	One day	25

**Department of Zoology:**

Session	Name of Place	Duration of Visit	No. of students
2017-18	<b>Sultan Fish Seed Farm, Karnal, Haryana,</b> on 15.10.2017	One day	50 (B.Sc. III Medical)
2017-18	<b>College of Fisheries, GADVASU,</b> Ludhiana on 23.02.2017	One day	50 (B.Sc. III Medical)

## **22. LIST OF LAB MANUALS/SOPS GENERATED FOR ALL PARTICIPATING DEPARTMENTS**

### **Department of Food Science:**

- SOPs for all the instruments available in the Departmental labs
- SOP for waste disposal and washing in Microbiology lab
- SOP for disposal of chemical waste generated in labs
- HACCP for hostel mess and college canteen
- Food adulterant detection pamphlets, videos and posters Lab manual on
  - Food Engineering,
  - Bio-informatics,
  - Processing of Foods of Animal origin
  - Bioanalytical Techniques

### **Department of Chemistry:**

Lab Manuals for the ready reference of the students were prepared jointly by all the faculty members of the department on the following topics:

SOP's for the following instruments have been prepared and exhibited.

- Double-Beam UV-VIS Spectrophotometer
- pH Meter
- Conductivity Meter
- Double Distillation unit
- Rota-Evaporator
- Potentiometer

### **Department of Botany:**

#### **SOPs prepared for working of:**

- SOPs for seed germinator and UV/VIS spectrophotometer
- Lab manuals related to Cell biology and Ecology

### **Department of Physics:**

Faculty of Physics department prepared LAB MANUALs

“Users Manual for Practical Physics”, B.Sc.I and B.Sc II

Other than this SOP's for the following instruments were prepared

- Function generator
- Hall effect set up

- Four probe set up for conductivity measurements
- Advanced polarimeter
- PH meter
- Centrifuge

**Department of Zoology:**

- SOPs for Laminar Air flow, BOD Incubator, Autoclave, Centrifuge, Microtome
- Lab Manuals on Cell Biology and Ecology

**23. FEEDBACK MECHANISM ADOPTED (TO BE INDICATED IN TERM OF HOW THE QUALITY OF TEACHING AND HANDS ON TRAINING IMPROVED)**

- Individual feedbacks taken from students through feedback forms.
- Feedback taken through class / group discussion.
- Feedback taken from resource person who conducted workshop or invited as guest lecturer.  
Feedbacks were also taken from parents of students through communication with class teachers.
- Feedback forms filled up by the students were analyzed meticulously. Valuable inputs by the students were given due importance and they helped in improving the teaching methodologies in an effective manner.
- There is a clear trend of improvement in quality of teaching and hands on training especially through new practicals, projects and workshops.
- Now, students are able to perform all the practicals individually, giving them confidence during final exams.
- Number of practicals performed has increased, leading to better understanding of the theoretical concepts, thus giving students an edge among their peers in other colleges and universities.

**24. ANY SPECIAL INNOVATIVE APPROACH ADOPTED BY THE COLLEGE IN IMPROVING THE UG EDUCATION**

- Students are doing market surveys,
- Preparing case studies,
- Developing food adulterants detection kits and water testing kits
- Imbibing enterprising capabilities
- Application based learning
- Participating in oral and poster presentations in National and International seminars and conferences.
- Industrial interface
- Implement new projects to the under graduate classes.

- Arranged inter-institutional summer / winter projects.
- Demonstrate new practicals to the under graduate classes to widen up their theoretical as well as experimental knowledge.
- Knowledge about the various web sites related to the topics.
- Extra material is provided to advanced learners.
- Several theoretical projects are assigned to the students. More emphasis over hands-on training and education.
- Students are encouraged to participate in various seminars and workshops to prepare them for research in their respective careers.
- Hands on training programmes followed by allotment of minor research projects to UG students.

**25. A summary on “how the Scheme helped in strengthening of the UG education and what would not have been possible without this” (not more than 1000 characters)**

Star College Scheme enabled the purchase of new lab-equipments, chemicals etc. which in turn facilitated execution and performance of new practicals. All the students are exposed to hands on skills as sufficient availability of chemicals and glass wares has facilitated practical learning. Therefore, review projects have been converted to research projects giving wider practical training to each student. Industrial visits and number of guest lectures in various departments has also increased significantly. Various workshops, seminars and fests sponsored by the Star college scheme funding has increased the students overall development and interest. Inter departmental and inter college cohesion has also been improved thus positively enhancing the reputation of both department and college. This has been evident by the improved ranking of college in India Today.

In addition, the total number of applicants has significantly increased with decrease in the drop –out percentage. The total number of admissions has also shown a remarkable increase. This has led to initiation of second unit of B.Sc. MFT course. This scheme has boosted the confidence and enthusiasm in both faculty and students with greater number of faculty participating in faculty development programs (FDP’s). Also, the interest of students towards science and research has enhanced and is evident with higher percentage of post-graduate admissions in sciences after the implementation of Star College Scheme.

**26. SUGGESTIONS/FEEDBACK FOR IMPROVING THE SCHEME**

- Timely release of funds would help maintain the enthusiasm of faculty as well as students.
- Tentative dates for yearly submission of progress report and its format, UC/SE, and presentations should be finalized in the beginning of the session
- Less paper work and more emphasis on, on the spot verification

- Please do not shoot the messenger/Co-ordinator. Star college scheme is a team work which requires focused efforts from administration and the participating departments. In case of short-comings, please indicate/suggest improvements department wise so that specific action is taken.
- Non recurring grant should be increased
- More funds are needed for procurement of new equipment i.e. incubator and seed germinator and the maintenance of the existing infrastructure. Also, funding should be provided to establish central instrumentation facility
- Product Development lab for innovative food product development and its shelf-life studies is required
- More computers are required to facilitate teaching and research
- Funding for accessing online library and indexing databases
- Training / workshops for Star College Scheme Coordinators should be held in New Delhi to facilitate better functioning at the beneficiary institutions.
- Provision of a few DBT sponsored awards/scholarships for the undergraduate students involved in research projects would help increase their enthusiasm and confidence.
- Approval for the purchase of books, manuals pertaining to new courses and research under DBT Star College Scheme will be highly acknowledged.



## **ANNEXURE-II**

### **B.Sc. MFT I Year (2017-18)**

<b>S.no</b>	<b>Roll no</b>	<b>Name</b>
1	5001	SUNITA SHARMA
2	5002	MANVI JINDAL
3	5004	ADITI BHAGAT
4	5006	SHERRY
5	5007	ANKITA MANDYAL
6	5008	NISHIKA
7	5009	UDITI MOUDGIL
8	5010	SHANIA SAINI
9	5011	VANSHIKA SHARMA
10	5013	VANSHIKA ARORA
11	5014	GURLEEN KAUR
12	5015	APARNA MAHAJAN
13	5016	KAJOL
14	5017	GULAFSHAN
15	5019	GARIMAJI
16	5020	PRAGYA SINGH
17	5021	TANYA
18	5022	NAVLEEN VIRK
19	5023	ISHITA PABBI
20	5024	ADITI GULERIA
21	5025	KHUSHNEET KAUR
22	5026	KIRAN VERMA
23	5027	TANYA
24	5028	URVASHI
25	5029	ISHITA
26	5030	HARNEEV KAUR SAINI
27	5031	MAHIMA
28	5032	MANJOTPREET KAUR
29	5033	SIMRAN CHOUDHARY
30	5034	ARYA GARGI
31	5035	TANIA THAKUR
32	5037	CHEENA MEHTA
33	5038	MANJOT KAUR
34	5039	AMANPREET KAUR
35	5040	KOMAL LADHAR
36	5041	SRISHTY DEWAN

37	5042	SALONI
38	5043	ANJU JEENA
39	5045	ANJALI DEVI
40	5046	MANDEEP KAUR
41	5047	SIMERPREET KAUR
42	5048	VANSHIKA TIWARI
43	5049	SIMRAT KAUR
44	5050	MUSKAAN SACHDEVA
45	5902	YOGITA
46	5903	BHAWNA
47	5904	AMANPREET KAUR
48	5905	DIKSHA GAKHAR
49	5906	SIMRAN KAUR
50	5907	NANCY AGGARWAL
51	5908	PRERNA VAISH
52	5911	Shambavi
53	5912	Natasha
54	5913	Parul Joshi
55	5905	Mansi Sharma
56	5910	Inderdeep Kaur
57	5915	Kritika gupta
58	5914	Priya Khurana
59	5917	Bhinashu Talwar
60	5918	Anureet Kaur
61	5919	Kanika
62	5921	Muskan Goyal
63	5920	Shubhangna
64	5922	Divya Roop

### **ANNEXURE-III**

#### **B.Sc. MFT II Year (2017-18)**

<b>S.No</b>	<b>Roll No.</b>	<b>Student Name</b>
1	5051	Ritika Mittal
2	5054	Tejaswini Jaswal
3	5055	Gursimran Kaur
4	5057	Prachi Minhas
5	5058	Medhavi
6	5059	Navneet Kaur
7	5060	Purva Aggarwal
8	5061	Lovepreet Kaur
9	5063	Chhavi Dhiman
10	5064	Anjali Rahlan
11	5066	Gurleen Pannu
12	5068	Sonia Kayath
13	5069	Amber Asghar
14	5071	Himanshi Bansal
15	5072	Simranjeet Kaur
16	5073	Kangan K
17	5076	Sonia Sharma
18	5077	Riya
19	5080	Komal Atlas
20	5082	Komal
21	5081	Kulveer Kaur
22	5085	Jhanvi Trehan
23	5087	Vaani Dutta
24	5088	Kamaljit Kaur
25	5089	Sharanya Bhardwaj
26	5090	Nisha Chaudhary
27	5094	Tanvi
28	5098	Ujjwal
29	5100	Bahaar Hundal
30	5945	Aditi Vashisht
31	5946	Eva Dixit
32	5947	Ramanpreet Kaur
33	5948	Kanika
34	5949	Mahima
35	5951	Komal Kanugo
36	5952	Riya
37	5953	Anuragi

38	5954	Rakshandha Sood
39	5955	Vishwajot Kaur
40	5956	Amandeep Kaur
41	5958	Ananaya Talwar
42	5959	Nikita Sharma
43	5960	Shweta Arora
44	5961	Alka Goel
45	5962	Sarah Sharma
46	5963	Shaheena Singh
47	5964	Iknoor Kaur
48	5965	Jasleen kaur Benipal
49	5966	Diksha Prasher
50	5967	Amandeep Kaur
51	5968	Ramneet Kaur
52	5969	Chahat Verma
53	5971	Sonal Mishra
54	5972	Shagun Bajaj
55	5973	Harshita Arya
56	5974	Japneet
57	5975	Bhavya
58	5976	Shruti Soni
59	4969	Ranshi

## **ANNEXURE-IV**

### **B.Sc. MFT III Year (2017-18)**

Sr No.	Roll No	Name
1	4901	Jasmine Cheema
2	4902	Aishwarya Dhiman
3	4903	Simran Saini
4	4904	Meera
5	4905	Jasmine Kaur Multani
6	4906	Sumedha Chauhan
7	4907	Sanveer Kaur
8	4908	Prerna
9	4910	Navreen Kaur
10	4911	Abhiruchi
11	4912	Nitika Sharma
12	4913	Vaishnavi Sharma
13	4915	Sumehar Kaur
14	4918	Ritika Kadian
15	4919	Vijayanti Dagar
16	4921	Palak Soni
17	4922	Simran Sharma
18	4927	Ravneet Kaur
19	4928	Simran Nagrani
20	4929	Jaspreet Kaur
21	4931	Twinkle Kakkar
22	4932	Aditi Sharma
23	4933	Dipti
24	4935	Prabhleen Kaur
25	4936	Navpreet Kaur
26	4937	Tejroop Kaur
27	4938	Nikita Kundu
28	4940	Sanya Chauhan
29	4941	Dibjot Kaur
30	4942	Sukhleen Kaur
31	4943	Aditi
32	4944	Priyanka
33	4945	Bharti Gambhir
34	4946	Aanchal Sehgal
35	4947	Jasmine Kaur
36	4948	Akshima Sharma
37	4949	Isshu

38	4950	Panvi Ahuja
39	4952	Ramandeep Kaur Virk
40	4954	Dharna Sharma
41	4955	Vaishali Jhinja
42	4956	Vani Angra
43	4957	Amanjot Kaur
44	4960	Vasavi Karol Sood
45	4961	Prashasti Bhardwaj
46	4962	Anjali
47	4964	Navya
48	4965	Saima
49	4966	Sakshi Rathi
50	4967	Kanika
51	4968	Aastha Ghai
52	4970	Neha
53	4971	Kritika Sharma
54	4972	Chetanshi
55	4973	Manika Jaryal
56	4974	Ankita
57	4975	Ashmita Rathi
58	4976	Simran Behniwal
59	4977	Avni
60	4978	Riya
61	4979	Ramandeep Kaur
62	4980	Divya
63	4983	Jasleen kaur
64	4984	Tanvi Saini
65	4985	Ananya
66	4986	Rashmi Surial

**ANNEXURE-V:**

**B.Sc. I Year Medical (2017-18)**

<b>B.Sc. (I) Section A</b>			<b>B.Sc. (I) Section B</b>		
<b>Sr. No.</b>	<b>Roll No.</b>	<b>Name</b>	<b>Sr. No.</b>	<b>Roll No.</b>	<b>Name</b>
1	101	Jhanvi Singla	1	104	Chhavi Thakur
2	113	Anjali	2	106	Surbhi Bishnoi
3	119	Jaspreet Kaur	3	108	Vaishali Thakur
4	121	Gurleen Kaur	4	110	Shivani Sharma
5	125	Gauri Vats	5	116	Harsimrat Kaur Sandhu
6	127	Anshika Sharma	6	118	Neha Grover
7	129	Riya	7	120	Simrandeep Kaur Bachhal
8	131	Manisha	8	122	Vanshika
9	133	Sanjana	9	124	Supriya
10	135	Chandandeep Kaur Behl	10	126	Akshara Panesar
11	139	Palak	11	128	Harleen Kaur
12	141	Kashish Bains	12	130	Preeti Khawla
13	143	Shakshi	13	132	Ritika Negi
14	145	Mansi Gautam	14	134	Rashmi Punia
15	147	Prachi	15	136	Sania
16	149	Prachi Goyal	16	138	Chanchal Chugh
17	151	Deepti	17	140	Shivani
18	153	Tanya Upadhayay	18	142	Priya Kumari
19	155	Ojasvi Sharma	19	146	Stanzin Angmo
20	157	Hasandeep Kaur	20	148	Tania
21	159	Anjali	21	150	Chhavi
22	163	Divya Khalsa	22	154	Vasudha
23	165	Balwinder Kaur	23	156	Priyajit Kaur
24	167	Sakshi Thakur	24	160	Aditi Chaudhary
25	169	Payal	25	162	Monu Devi
26	171	Aarushi Chaudhury	26	164	Saloni Chandel
27	173	Sanchi Sharma	27	166	Chahat
28	175	Muskan Chahal	28	168	Bhavya Mehta
29	177	Shweta	29	170	Jaspreet Kaur
30	179	Kirpaesh Kaur	30	172	Mahak
31	181	Anchal	31	174	Pragya Rathour
32	183	Aasya Kamboj	32	176	Vijeta
33	185	Alka Gaur	33	178	Prabhjeet Kaur
34	187	Divyani Sharma	34	180	Vibhuti Sardana
35	189	Aarzoo	35	182	Ishita Thakur
36	191	Muskan	36	184	Yashasvi

37	193	Aditi Sharma	37	186	Parikha Banga
38	195	Avi	38	188	Harmandeep Kaur
39	197	Geetanjali	39	190	Sonia
40	199	Mannu	40	192	Akanksha
41	203	Manisha	41	194	Vasvi Mehla
42	204	Anjali Devi	42	196	Diksha
43	205	Kanika Mann	43	198	Ankita Sharma
44	206	Simran	44	200	Swati
45	207	Jyoti Jaitak	45	202	Savitaj Kaur Kullar
46	208	Khushabu Gupta	46	236	Minakshi Rana
47	209	Ankita Dogra	47	237	Vandana
48	210	Mansi	48	238	Garima
49	211	Arushi Gupta	49	239	Parneet Kaur Mann
50	213	Sukhveer Kaur	50	240	Nitika
51	214	Pratibha Boora	51	247	Guneetinder
52	215	Nandini Makhija			
53	217	Rhythm Saini			
54	218	Akshita Sharma			
55	219	Sheetal			
56	220	Ritu Nain			
57	221	Arti Chauhan			
58	222	Sanjotinderpreet Kaur			
59	223	Jashveer Kaur			
60	224	Shivangi Jain			
61	225	Harleen			
62	226	Nazia			
63	227	Tanvi			
64	228	Shivani			
65	229	Yashmin Kakkar			
66	230	Muskan Rani			
67	231	Ashiti Pathania			
68	232	Jaskirat Kaur			
69	233	Versha			
70	234	Riya Sharma			
71	235	Anjali Kashyap			
72	242	Shubhangna			
73	243	Chesta			
74	246	Divya			



**ANNEXURE-VI:**

**B.Sc. II Year Medical (2017-2018)**

<b>B.Sc. (II) Section A</b>			<b>B.Sc. (II) Section B</b>		
<b>Sr. No.</b>	<b>Roll No.</b>	<b>Name</b>	<b>Sr. No.</b>	<b>Roll No.</b>	<b>Name</b>
1	2502	Mandeep Kaur	1	2506	Kashika Thanta
2	2504	Jaspreet Kaur	2	2508	Diksha
3	2505	Gurpreet Kaur	3	2510	Trisha Duggal
4	2509	Mahak Dhamija	4	2512	Navneet Kaur
5	2515	Bazila Javid	5	2514	Amritpal Kaur
6	2519	Navdeep Kaur	6	2516	Anjna Arora
7	2523	Monika	7	2518	Amreen Kaur Khaira
8	2529	Gurpreet Kaur	8	2525	Varalika
9	2533	Pranvi Gupta	9	2527	Sujeeta
10	2537	Akshita	10	2530	Dyuti Kapila
11	2539	Jyotika Aggarwal	11	2532	Ashima Jagota
12	2545	Riya Middha	12	2534	Anshul Rawat
13	2549	Navjot Kaur	13	2540	Navneet Kaur
14	2557	Prachi Gupta	14	2544	Deepika
15	2561	Aastha Thakur	15	2548	Gurnoor
16	2565	Ritul Sharma	16	2550	Sweety
17	2571	Gunjan Sharma	17	2558	Shubhangi Singh
18	2573	Vitasta Garg	18	2560	Mehak Kaur
19	2583	Aarzoo Sharma	19	2562	Muskan
20	2593	Khushboo Jain	20	2564	Shriya Gaur
21	2595	Ritambhra Kaushal	21	2570	Shaivi Saini
22	2601	Prabhjot Kaur Chandel	22	2574	Ina Sharma
23	2607	Preeti Malik	23	2576	Shweta Sharma
24	2609	Simranpreet Kaur	24	2580	Shailja
25	2615	Navneet Kaur	25	2588	Harshita Attri
26	2619	Garima	26	2594	Meena
27	2621	Money Batra	27	2596	Jaskiran Kaur
28	2627	Chakshu Sharma	28	2604	Swarnima Jaitly
29	2629	Anjali Kanwal	29	2608	Simran
30	2631	Amanjeet	30	2614	Anupampreet Kaur
31	2633	Poonam	31	2628	Jagriti
32	2635	Shivani	32	2630	Navgeet
33	2639	Shifa	33	2632	Kirat Chauhan
34	2641	Armanpreet Kaur	34	2634	Mohinder Kaur
35	2643	Vandana Rani	35	2640	Deepika Khatri
36	2645	Aayushi Walia	36	2646	Himani Narwal
37	2649	Apurva Bathla	37	2648	Komal Choudhary

38	10403	Priya	38	2650	Prachi Gupta
39	10405	Jashandeep Kaur	39	10402	Deepika Bhola
40	10407	Surbhi sharma	40	10404	Rubal
41	10425	Amisha sharma	41	10406	Gargi
42	10430	Vanshika bansal	42	10412	Jyoti
43	10432	Ritu singh	43	10414	Kajal Sorout
44	10435	Samridhi khosla	44	10416	Garima
45	10437	Shaveta jain	45	10420	Sehaj
46	10438	Navjot kaur	46	10421	Manuja Bhardwaj
47	10439	Sumitra devi	47	10422	Akshdeep Kaur
48	10440	Navdeep kaur	48	10424	Arminder Sandhu
49	10441	Neha	49	10426	Rajni Bala
50	10446	Ishika	50	10427	Simran Nagpal
51	10448	Akriti rana	51	10429	Avni Singhal
52	10449	Jyoti devi	52	10501	Avantika Tiwari
53	10450	Harmanjeet kaur			
54	10451	Gargy bathla			
55	10452	Kamaldeep kaur			
56	10453	Shweta.s			
57	10455	Manvi bhatia			
58	10456	Ekta saini			
59	10457	Harnoor kaur			
60	10458	Sunaina			
61	10460	Chhetan zangmo			
62	10461	Sukhkirat kaur			
63	10462	Jaspreet kaur			
64	10464	Nikita bharti			
65	10465	Manvi			
66	10466	Padma angmo			
67	10472	Amulya josan			
68	10473	Nikita bansal			
69	10475	Tamanna			
70	10477	Anjali			
71	10479	Nancy jamwal			
72	10485	Anushka arora			

**ANNEXURE-VII:**

**B.Sc. III Year Medical (2017-2018)**

SECTION-A (AQUACULTURE)			SECTION-B (MEDICAL LAB TECHNOLOGY)		
Sr. No.	Roll No.	Name	Sr. No.	Roll No.	Name
1	2902	Shivali	1	2900	Shweta sharma
2	2903	Arshdeep kaur	2	2901	Piyush thakur
3	2906	Kusum	3	2910	Amritpal kaur
4	2907	Nusrat	4	2917	Pallavi
5	2911	Arshia	5	2918	Natasha
6	2912	Shubhi	6	2922	Aarzo Jindal
7	2914	Mehek	7	2927	Shruti Bansal
8	2915	Parul	8	2931	Muskaan
9	2916	Poonam Rani	9	2932	Kimmi Mittal
10	2919	Anamika Bhardwaj	10	2933	Kalpita Sharma
11	2920	Sonali	11	2934	Harpreet Kaur
12	2921	Anamika Goyal	12	2936	Bhavna Panwar
13	2924	Rashmi	13	2938	Jasmine Kaur Marwaha
14	2925	Akanksha Dhiman	14	2942	Nancy rani
15	2930	Gurjeet Kaur	15	2944	Sonam Sihag
16	2939	Varsha	16	2947	Aditi
17	2941	Mansi	17	2948	Swati
18	2945	Vishakha	18	2949	Aarti
19	2946	Rachna Thakur	19	2950	Arushi
20	2952	Poonam Mor	20	2951	Swati Sharma
21	2953	Vanshika	21	2955	Shivani
22	2954	Garima	22	2960	Aashima Singla
23	2956	Aastha	23	2963	Ishu
24	2957	Vaishali Ahlawat	24	2968	Aditi Hooda
25	2959	Reman Devi	25	2969	Priyanka
26	2961	Divya	26	2973	Kawan Deep Kaur
27	2966	Harshita Thakur	27	2976	Prerna
28	2967	Kajal	28	2977	Gunjot Kaur
29	2971	Parul Thakur	29	2978	Sakshi Muwal
30	2974	Nikita	30	2997	Nathamon
31	2981	Meghna Rathee	31	2998	Sonal
32	2983	Ridhi Raj	32	3006	Kiran
33	2984	Shivani Kaushal	33	3017	Damini Thakur
34	2985	Varuni Nagraik	34	3023	Pratibha Sharma
35	2987	Ahaana Pandita	35	3025	Bindia
36	2988	Aarzo	36	3030	Nikita Vinni

37	2990	Garima	37	3038	Deepali
38	2993	Mansha	38	3043	Aastha
39	2996	Sonali Taneja	39	3049	Meenal
40	2999	Aarti Thakur	40	3050	Simran Kaur
41	3000	Arushi Sharma	41	3051	Purnima
42	3002	Bhawna Soni	42	3052	Swati Sharma
43	3004	Rakhi Tyagi	43	3058	Himani
44	3005	Vandana Devi	44	3059	Harshmeet Kaur
45	3007	Niharika			
46	3008	Nitasha			
47	3009	Ramanpreet Kaur			
48	3010	Gurliin			
49	3015	Simranpreet Kaur			
50	3016	Harpreet Kaur			
51	3018	Manisha Saini			
52	3019	Nidhi			
53	3020	Sheetal Singh			
54	3021	Mannat Kaur			
55	3022	Mehakpreet Kaur			
56	3024	Simran			
57	3027	Shikha Sharma			
58	3029	Meenakshi			
59	3033	Monika Girdhar			
60	3034	Riya joshi			
61	3035	Amanjot Kaur			
62	3036	Harshita aggarwal			
63	3037	Harnoor Kaur			
64	3039	Medha Antil			
65	3040	Ragini chopra			
66	3041	Simranpreet Kaur			
67	3045	Himanshi			
68	3046	Diksha Sood			
69	3047	Varsha			
70	3048	Navi Garg			
71	3053	Shubhika			
72	3054	Tamanna Malik			
73	3055	Nancy			
74	3056	Sarika			

## ANNEXURE-VIII



**Rajiv Gandhi National Institute of Youth Development**

**Regional Centre, Chandigarh  
in collaboration with**

**MCM DAV College for Women**

**Sector 36, Chandigarh**

**Concept Note**

**Workshop on Start-Up Stand-up for Potential Young Entrepreneurs**

<b>To be organised by</b>	Rajiv Gandhi National Institute of Youth Development, Regional Centre, Chandigarh in collaboration with MCM DAV College for Women, Sector 36, Chandigarh
<b>Place</b>	RGNIYD Regional Centre, Sector 12, Chandigarh
<b>Date</b>	October 13 – 17, 2017

### **Background**

*The Indian economy is undergoing transformation. It is increasingly becoming digital and integrated with the global economy. There are opportunities galore. These cannot be tapped for the benefit of the country by just the existing organizations. It would need many more enterprises – big and small.*

*The government has been focusing increasingly on skills as well. Entrepreneurship or capability to start an enterprise has been identified as one such skill. Research also suggests that if this skill is imparted at an early age, then chances of an individual getting into entrepreneurship increase. The government has been putting a favourable eco-system to encourage more and more students to become job givers and not just job seekers.*

*Setting up an enterprise goes through a well-delineated process including need identification, narrowing down alternatives, technical and financial feasibility, laboratory and market testing, and commercial launch.*

*The hands-on workshop is beneficial for students, entrepreneurs, and professionals from the industry.*

## Goal

The goal of this workshop is to equip and empower the participants with enhanced understanding of starting a venture more adequately to meet the needs of the beneficiaries. It will build up a clear body of theory, understanding and skills for various aspects of initiating and managing a business, so that by the end of the training the participants will have a clear competence across all stages.

## Objectives

By the end of the training, participants will understand:

- The process of identifying opportunities in the economy
- The modalities of setting up their own business
- Functional concepts and hands on skills needed to successfully start and run their businesses.
- Regulatory environment for the entrepreneurship.
- Importance and procedure of ensuring food safety.
- Basic knowhow of project writing for funding and IPR.

## Expected Outcomes

At the end of the training, participants will be able to:

- Conceptualize, define, plan, develop enterprises
- Apply entrepreneurial skills
- Understand basic guidelines of project report preparation
- Appreciate IPR and its applications in food industry
- Comprehend opportunities and challenges in entrepreneurship

## Process and Methodology

The training will involve the following methodologies to ensure effective and meaningful participation:

- Presentation
- Group discussion
- Ideation
- Group exercise
- Hands-on training
- Games
- Live case studies from the industry



**Rajiv Gandhi National Institute of Youth Development**  
**Regional Centre, Chandigarh**  
**In collaboration with**  
**Department of Food Science, MCM DAV College for Women, Chandigarh**  
**Workshop on Start-Up / Stand-up for Potential Young Entrepreneurs**

**Date:** 10-13 Oct, 2017  
RC, Chandigarh

**Venue:** RGNIYD,

**Programme Schedule**

<b>Day – 1</b>	<b>Programme / Sessions</b>	<b>Resource Persons</b>
09:30-10:00 am	Registration and Welcome/RGNIYD Film	<b>RGNIYD Team</b>
10:00-11:00 am	Inauguration/Introduction	<b>RGNIYD Team, MCM DAV Team</b>
11:00-11:30 am	Tea Break	
11:30-12:30 pm	Food Safety	<b>Prof. Amarjeet Singh, Community Medicine, PGIMER, Chandigarh</b>
12:30-01:00 pm	Ice Breaking and Expectations Gathering, Me and my assets	<b>Ms. Kamalpreet Kaur</b>
01:00-02:00 pm	Lunch	
02:00-03:00 pm	Law and Entrepreneurial Opportunities	<b>Dr. Bharat, UIIS, PU</b>
03:00-03:30 pm	Tea Break	
03:30-04:30 pm	Entrepreneurship Development: Go-to-market strategy	<b>Mr. Rajneesh Mehra, Head – MBA, GJIMT, Mohali</b>
04:30pm onwards	Creative Thinking	<b>Ms. Kamalpreet Kaur</b>
<b>Day – 2</b>	<b>Programme / Sessions</b>	<b>Resource Persons</b>

09:30-10:00 am	Recap	
10:00-11:00 am	Project Financing – Agencies and Modalities	<b>Dr. Anil Angrish, NIPER, Mohali</b>
11:00-11:30 pm	Tea Break	
11:30-01:00 pm	Supercritical Fluid Extraction Technology	<b>Mr. PawanKamra, CEO,ChandigarhAgritechPvt. Ltd.</b>
01:00-02:00 pm	Lunch	
02:00-03:00 pm	Fruits and Vegetable Processing	<b>Mr. Ashish, IHM, Bathinda</b>
03:00-03:30 pm	Tea Break	
03:30-05:00 pm	Fruits and Vegetable Processing (Cont'd.)	<b>Mr. Ashish, IHM, Bathinda</b>
05:00-06:00 pm	Trust Building	<b>Ms. Kamalpreet Kaur</b>

<b>Day – 3</b>	<b>Programme / Sessions</b>	<b>Resource Persons</b>
09:30-10:00 am	Recap	
10:00-11:00 am	Food Safety	<b>Mr. Sukhvinder, Food Safety Inspector, Chandigarh</b>
11:00-11:30 pm	Tea Break	
11:30-01:00 pm	Information Technology and Social Media as an enabler for entrepreneurship	<b>Dr. Harish, PU, Chandigarh</b>
01:00-02:00 pm	Lunch	



02:00 pm onwards	Bakery Technology	<b>IHM, Bathinda</b>
06:00 pm onwards	Cultural Evening	<b>RGNIYD Team</b>
<b>Day – 4</b>	<b>Programme / Sessions</b>	<b>Resource Persons</b>
09:30-10:00 am	Recap	
10:00-11:00 am	Project Financing – Agencies and Modalities	<b>Dr.GeetaMehra,</b> <b>HoD - Dept. of Food Science,</b> <b>MCM DAV College for Women</b>
11:00-11:30 am	Tea Break	
11:30-01:00 pm	Intellectual Property Rights	<b>Mr. ChandanChandana,</b> <b>NIPER, Mohali</b>
01:00-02:00 pm	Lunch	
02:00-03:00 pm	Tie up/Evaluation Forms/Appreciation Cards	<b>RGNIYD Team</b>
03:00-03:30 pm	Tea Break	
03:30 pm onwards	Valedictory Address by <b>Dr.AjitDua, Director, PBTL, Mohali</b> / Closing Ceremony	<b>RGNIYD Team,</b> <b>MCM DAV Team</b>

## **ANNEXURE IX:**

### **Concept Note of Workshop on ‘Awareness Generation and Dissemination of Knowledge and Skills about Recent Advances in Nutrition and Food Safety’**

We are delighted to inform you that Department of Food Science is organizing a one-day Workshop on ‘Awareness Generation and Dissemination of Knowledge and Skills about Recent Advances in Nutrition and Food Safety’, in collaboration with Department of Community Medicine, School of Public Health, PGIMER, Chandigarh, on November 23, 2017.

Food Safety involves handling, preparation, and storage of food in order to prevent food borne illness, and consequently impact on nutritional quality of food. The objective of incorporating food safety initiatives is to prevent potential health hazards. Issues pertaining to food safety include: the origin of food; the practices relating to food labeling, food hygiene, food additives, and pesticide residues; policies on biotechnology and food; and guidelines for the management of governmental import and export inspection and certification systems for foods.

It is our privilege to invite faculty and students to participate in this workshop.

The venue shall be Multi-media Hall at MCM DAV College for Women, Sector 36A, Chandigarh, 9.00am -4.00pm. Registration fees is Rs. 200/-

We look forward to your confirmation at the earliest.

Best regards.

Dr. Geeta Mehra  
Coordinator - Star College Scheme,  
Asst. Professor and Head,  
Department of Food Science,  
MCM DAV College for Women,  
Sector 36-A, Chandigarh

## **ANNEXURE X:**

### **REPORT ON One day Workshop on “Production of functional Bio-molecules from Probiotic bacteria” organized by Dairy Microbiology Department, National Dairy Research Institute (NDRI), Karnal**

On 15 March 2018, Department of Food Science, MCM DAV college for women, organized a research-oriented workshop in National dairy research institute, Karnal. National Dairy Research Institute is a body of Indian Council of Agricultural Research, which is engaged primarily in teaching, learning, and research in the field of dairying. NDRI was established in the year 1955. It consists of different department viz. Division of Dairy Technology, Dairy Microbiology, Dairy Engineering, Dairy Extension, Dairy Economics, etc.

The workshop was attended by 42 students of B.Sc 3<sup>rd</sup> year MFT and Dr. Vandana and Dr. Sandeep, faculty of the department. The one-day workshop proved to be a great success due to the enthusiastic input from the students and the team from department of dairy microbiology, NDRI. The purpose of the workshop was to provide students with practical and theoretical knowledge on probiotics and its functional biomolecules.

After a 3 hours journey to NDRI, Prof. Tomar from dairy microbiology department addressed the students in the introductory session. He highlighted the importance of research to the students. He introduced the students about their search going on in different labs of the department and also shared the details of research going on probiotics in his lab. He also explained various post graduate courses in NDRI, which students can join after clearing written test.

After the introductory session, Dr. Tomar delivered a very informative and fun-filling lecture on probiotics and how these tiny cell factories are source of various functional biomolecules. Dr. Tomar talked on the various technological details of probiotic fermentation processes. He also gave an account on the production of vitamins and calorie-free sugars from probiotics. The session kept all of the students constantly involved, thinking, analyzing and correlating our academic curriculum with the real-life issues.

After this session, students were taken to condensing and drying section, where production of condensed and dried milk products is done. There is a scope for greater production of dried milk and milk products in future due to their better keeping quality, lesser storage space requirements and lower transportation cost as compared to fluid milk. Condensed milk contains all the milk constituents in small bulk with prolonged keeping qualities. Experimental Dairy has a separate Condensing and Drying section which is in use for the production of Kalakand, Skim Milk Powder, and Gulab Jamun Mix. There students were exposed to vacuum pan, roller drier, spray Drier and steam kettle and various other technologies used in the dairy plant. Students were taught about the working of exchange chromatography, electron microscope, freeze drier and automatic biochemical analysis of the probiotics. The practical session was on how to isolate probiotics from different samples followed by screening of exopolysaccharide producing probiotics. Students learnt how the EPS can be purified and characterized. The last session untangled all doubts and queries of the students. They were also explained about the placement opportunities in such institutes.



On the whole, students learnt the importance of relevant techniques and methodology used in dairy microbiology. Such workshops go a long way to inculcate research attitude among students and also motivate students to innovate and explore new horizons.

## ANNEXURE XI



**Regional Centre for Entrepreneurship Development (RCED), Chandigarh**  
**In collaboration with**  
**Department of Food Science, MCM DAV College for Women, Chandigarh**  
**“ENTREPRENEURSHIP DEVELOPMENT PROGRAMME”**



**Sponsored by**  
**Directorate of Industries**

**Date:** 26-28 March, 2018

**Venue:** Room No.8, MCM DAV College for Women

### **Programme Schedule**

<b>Day – 1</b> <b>[26.3.18]</b>	<b>Programme / Sessions</b>	<b>Resource Person</b>
2:00-2:10 pm	About RCED, MCM DAV College for Women, and Dept. of Food Science	
2:10-2:20 pm	Welcome Address	Principal Madam Dr. Nisha Bhargava
2:20-2:30 pm	Introduction about the EDP	Dr. Paramjeet Singh Principal Director, RCED
2:30-3:15 pm	Lecture on .....	Mr. Aman Uppal, Head, International Markets, Reliance Technocrats
3:15 -4:00 pm	Lecture on “Funding Agencies and their respective schemes esp. with respect to Women Entrepreneurs”	Dr. Paramjeet Singh Principal Director, RCED
<b>Day – 2</b> <b>[27.3.18]</b>	<b>Programme / Sessions</b>	<b>Resource Person</b>
2:00 – 3:00 pm	Lecture on “ Food Safety Standards”	Prof. Amarjeet Singh Community Medicine, PGIMER, Chandigarh
3:00 – 4:00 pm	Lecture on “INTRAprenurship”	Dr. Anil Angrish, NIPER, Mohali

<b>Day – 3</b> <b>[28.3.18]</b>	<b>Programme / Sessions</b>	<b>Resource Person</b>
2:00- 3:30 pm	Panel Discussion	<ul style="list-style-type: none"> <li>• Mr.Anand P Srivastva (General Manager &amp; Incharge, Northern Region, SIDBI)</li> <li>• Mr.Sanjiv Verma (Regional Director, PCRA)</li> <li>• Mr.P N Khanna (Lead District Manager, Punjab National Bank)</li> <li>• Senior Officials from Directorate of Industries</li> </ul>
3:30 – 3:50 pm	Certificate Distribution	Principal, MCM; Director, RCED; Directorate, Industries, UT, Chd
3:50 – 4:00 pm	Vote of Thanks	Dr. Geeta Mehra, Head, Dept. of Food Science





# Mehr Chand Mahajan DAV College for Women Sector 36-A, Chandigarh (U.T.)

## Progress Report for Star College Scheme [Session 2017-18]

Submitted to

Department of Biotechnology  
Ministry of Science and Technology, Govt. of India

