Guru Nanak College, Sri Muktsar Sahib

Activities Report Performa

Session: 2024-25

Name of the Department: Department of Physics

Sponsored by DBT, New Delhi (Under Star College Scheme)

1. Name of the Activity Organized: Hands on Training Workshop ON ELECTRONICS PROJECTS.



- **2. Date and Venue of the Activity:** 9-14 september , UG Physics Lab, Guru Nanak College, Sri Muktsar Sahib
- **3. Name of the Resource Person, Designation and Address:** Er. Sukhvinder Singh, Coordinator, National Institute of Electronics, Research and Training, Patiala
- **4. Objective:** To enhance participants' understanding of key physics concepts by directly engaging with experiments and demonstrations.

2. Develop practical skills such as measurement, data collection, data analysis, and error handling, which are essential for conducting physics experiments.

5. Number and Details of the Participants/ Beneficiaries:

1) B.Sc. *II* (NM)

| Sr. | Name | Session | Branch | Project Name Done |
|-----|----------------------------|---------|----------------------|-------------------|
| no | | | | _ |
| 1 | Shiv Bajaj | 2024-25 | B.Sc. (Non medical) | IR Remote Control |
| 2 | Ramandeep kaur | 2024-25 | B.Sc. (Non medical) | IR Remote Control |
| 3 | Karandeep kaur | 2024-25 | B.Sc. (Non medical) | IR Remote Control |
| 4 | Simran | 2024-25 | B.Sc. (Non medical) | IR Remote Control |
| 5 | Harcharan singh | 2024-25 | B.Sc. (Non medical) | IR Remote Control |
| 6 | Manjinder kaur | 2024-25 | B.Sc. (Non medical) | IR Remote Control |
| 7 | Tamanna | 2024-25 | B.Sc. (Non medical) | IR Remote Control |
| 8 | Payal | 2024-25 | B.Sc. (Non medical) | IR Remote Control |
| 9 | Payalrani | 2024-25 | B.Sc. (Non medical) | IR Remote Control |
| 10 | Arshdeep singh | 2024-25 | B.Sc. (Non medical) | IR Remote Control |
| 11 | Gurwinder singh | 2024-25 | B.Sc. (Non medical) | IR Remote Control |
| 12 | Manjot kaur | 2024-25 | B.Sc. (Non medical) | IR Remote Control |
| 13 | Arshpreet kaur | 2024-25 | B.Sc. (Non medical) | IR Remote Control |
| 14 | Jaspreet kaur | 2024-25 | B.Sc. (Non medical) | IR Remote Control |
| 15 | Jashanpreet Singh | 2024-25 | B.Sc. (Non medical) | IR Remote Control |
| 16 | Sumanpreet kaur | 2024-25 | B.Sc. (Non medical) | IR Remote Control |
| 17 | Chahat | 2024-25 | B.Sc. (Non medical) | IR Remote Control |
| 18 | Ramandeep kaur | 2024-25 | B.Sc. (Non medical) | IR Remote Control |
| 19 | Rekha rani | 2024-25 | B.Sc. (Non medical) | IR Remote Control |
| 20 | Amreen kaur brar | 2024-25 | B.Sc. (Non medical) | IR Remote Control |
| 21 | Sania | 2024-25 | B.Sc. (Non medical) | IR Remote Control |
| 22 | Rajpreet singh | 2024-25 | B.Sc. (Non medical) | IR Remote Control |
| 23 | Sahibjeet Singh Dhillon | 2024-25 | B.Sc. (Non medical) | IR Remote Control |
| 24 | Krrish Arora | 2024-25 | B.Sc. (Non medical) | IR Remote Control |
| 25 | Arpan kumar | 2024-25 | B.Sc. (Non medical) | IR Remote Control |
| 26 | Simran kaur | 2024-25 | B.Sc. (Non medical) | IR Remote Control |
| 27 | Harpreet Kaur | 2024-25 | B.Sc. (Non medical) | IR Remote Control |
| 28 | Khushpreet kaur | 2024-25 | B.Sc. (Non medical) | IR Remote Control |
| 29 | Simranjeet kaur | 2024-25 | B.Sc. (Non medical) | IR Remote Control |
| 30 | Adarshnoor kaur | 2024-25 | B.Sc. (Non medical) | IR Remote Control |
| 31 | Smile | 2024-25 | B.Sc. (Non medical) | IR Remote Control |
| 32 | Arshdeep kaur | 2024-25 | B.Sc. (Non medical) | IR Remote Control |

| 33 | Shivam | 2024-25 | B.Sc. (Non medical) | IR Remote Control |
|----|-------------------|---------|----------------------|-------------------|
| 34 | HussanPreet singh | 2024-25 | B.Sc. (Non medical) | IR Remote Control |
| 35 | Khushdeep kaur | 2024-25 | B.Sc. (Non medical) | IR Remote Control |
| 36 | Robindeep kaur | 2024-25 | B.Sc. (Non medical) | IR Remote Control |
| 37 | Jaspreet Kaur | 2024-25 | B.Sc. (Non medical) | IR Remote Control |

2) B.Sc. III (NM)

| Sr. | Name | Session | Branch | Project Name Done |
|-----|------------------|---------|---------------------|--------------------------------|
| no | | | | |
| 1 | Amitoj Singh | 2024-25 | B.Sc. (Non medical) | |
| | Bhatti | | | Ab |
| 2 | | 2024-25 | B.Sc. (Non medical) | Fire Alarm, Smart |
| | Jashanpreet kaur | | | dustbin, Electronic water tap. |
| 3 | | 2024-25 | B.Sc. (Non medical) | Fire Alarm, Smart |
| | | | | dustbin, Electronic water tap. |
| | Mehak watts | | | alarm |
| 4 | | 2024-25 | B.Sc. (Non medical) | Fire Alarm, Smart |
| | Veerpal kaur | | | dustbin,Electronic water tap. |
| 5 | | 2024-25 | B.Sc. (Non medical) | Fire Alarm, Smart |
| | Rupinder Kaur | | | dustbin, Electronic water tap. |
| 6 | | 2024-25 | B.Sc. (Non medical) | Fire Alarm, Smart |
| | Mitali | | | dustbin, Electronic water tap. |
| 7 | | 2024-25 | B.Sc. (Non medical) | Fire Alarm, Smart |
| | Anmol | | | dustbin, Electronic water tap. |
| 8 | | 2024-25 | B.Sc. (Non medical) | Fire Alarm, Smart |
| | Monika Rani | | | dustbin, Electronic water tap. |
| 9 | | 2024-25 | B.Sc. (Non medical) | Fire Alarm, Smart |
| | Gaganpreet Kaur | | | dustbin, Electronic water tap. |
| 10 | Harsamrendeep | 2024-25 | B.Sc. (Non medical) | Fire Alarm, Smart |
| | Kaur | | | dustbin, Electronic water tap. |
| 11 | | 2024-25 | B.Sc. (Non medical) | Fire Alarm, Smart |
| | Jashanpreet Kaur | | | dustbin, Electronic water tap. |
| 12 | | 2024-25 | B.Sc. (Non medical) | Fire Alarm, Smart |
| | Charanjeet kaur | | | dustbin, Electronic water tap. |
| 13 | | 2024-25 | B.Sc. (Non medical) | Fire Alarm, Smart |
| | Khushi | | | dustbin, Electronic water tap. |
| 14 | | 2024-25 | B.Sc. (Non medical) | Fire Alarm, Smart |
| | Kanchan | | | dustbin, Electronic water tap. |

| 15 | | 2024-25 | B.Sc. (Non medical) | Fire Alarm, Smart |
|----|-------------------|---------|----------------------|--------------------------------|
| | Kashish | | | dustbin, Electronic water tap. |
| 16 | | 2024-25 | B.Sc. (Non medical) | Fire Alarm, Smart |
| | Amitoj kaur | | | dustbin, Electronic water tap. |
| 17 | | 2024-25 | B.Sc. (Non medical) | Fire Alarm, Smart |
| | Jashanpreet kaur | | | dustbin, Electronic water tap. |
| 18 | | 2024-25 | B.Sc. (Non medical) | Fire Alarm, Smart |
| | Mehak | | | dustbin, Electronic water tap. |
| 19 | | 2024-25 | B.Sc. (Non medical) | Fire Alarm, Smart |
| | Tanishka Bansal | | | dustbin, Electronic water tap. |
| 20 | | 2024-25 | B.Sc. (Non medical) | Fire Alarm, Smart |
| | Satwinder Kaur | | | dustbin, Electronic water tap. |
| 21 | | 2024-25 | B.Sc. (Non medical) | Fire Alarm, Smart |
| | Sukhmanjeet singh | | | dustbin, Electronic water tap. |
| 22 | | 2024-25 | B.Sc. (Non medical) | Fire Alarm, Smart |
| | Harmanjot Singh | | | dustbin, Electronic water tap. |
| 23 | | 2024-25 | B.Sc. (Non medical) | Fire Alarm, Smart |
| | Armaan singh | | | dustbin, Electronic water tap. |
| 24 | | 2024-25 | B.Sc. (Non medical) | Fire Alarm, Smart |
| | Sameer kalra | | | dustbin, Electronic water tap. |

3) B.Sc. I (NM)

| Sr. no | Name | Session | Branch | Project Name Done |
|--------|----------------|---------|----------------------|--------------------------------|
| 1. | | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level |
| | | | | Indicator |
| | Harleen Kaur | | | |
| 2. | | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level |
| | Navjot Kaur | | | Indicator |
| 3. | | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level |
| | Anjali Sharma | | | Indicator |
| 4. | | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level |
| | Sumit | | | Indicator |
| 5. | | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level |
| | Simarjeet Kaur | | | Indicator |
| 6. | | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level |
| | Manga Singh | | | Indicator |
| 7. | | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level |
| | Devika | | | Indicator |
| 8. | Gurkamalpreet | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level |
| | Singh | | | Indicator |
| 9. | Simranjeet | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level |
| | Kaur | | | Indicator |

| 10. | Sukhpreet | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level |
|-----|--------------------|----------------------|-----------------------|---|
| | Singh | | , | Indicator |
| 11. | | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level |
| | Satnam Singh | | | Indicator |
| 12. | ъ. | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level |
| 12 | Priya | 2024.25 | D.C. (M. 1' 1) | Indicator |
| 13. | A a 1 17 a a a a | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level |
| 14. | Anmol Kaur | 2024-25 | B.Sc. (Non medical) | Indicator Mobile Protection, Water Level |
| 14. | Anurag Singh | 2024-23 | D.Sc. (Non medical) | Indicator |
| 15. | Anupriya | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level |
| 13. | Verma | 202123 | Bise: (1 ton medical) | Indicator |
| 16. | | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level |
| | Pratham | | | Indicator |
| 17. | Jashandeep | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level |
| | Singh | | | Indicator |
| 18. | | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level |
| | Asshpreet Kaur | | | Indicator |
| 19. | D . II | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level |
| 20 | Parneet Kaur | 2024.25 | D.C. (M. 1' 1) | Indicator |
| 20. | Karanveer | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level Indicator |
| 21. | Singh | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level |
| 21. | Amritpal Kaur | 2024-23 | D.Sc. (Non medical) | Indicator |
| 22. | Champayalpree | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level |
| | t Kaur | | | Indicator |
| 23. | | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level |
| | Manisha | | | Indicator |
| 24. | | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level |
| | Ranveer Singh | | | Indicator |
| 25. | Shabadjot | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level |
| 26 | Singh | 2024.25 | D.C. (N | Indicator Mahila Parta dia a Watan Larah |
| 26. | Ankush Middha | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level Indicator |
| 27. | Alikusii iviiddiia | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level |
| ۷. | Manpreet Kaur | 202 1 -23 | D.Sc. (Non incurcal) | Indicator |
| 28. | Sukhmanpreet | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level |
| | Kaur | | (| Indicator |
| 29. | | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level |
| | Navjot Kaur | | , | Indicator |
| 30. | | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level |
| | Rajveer Kaur | | | Indicator |
| 31. | *** | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level |
| | Khushi | | | Indicator |

| 32. | Simran Kaur | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level Indicator |
|-----|---------------------|---------|----------------------|---|
| 33. | Anmol Kaur | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level Indicator |
| 34. | Ripdamn Kaur | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level Indicator |
| 35. | Navjot Singh | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level Indicator |
| 36. | Palak | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level Indicator |
| 37. | Jasmeen kaur | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level Indicator |
| 38. | Jaspreet Kaur | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level Indicator |
| 39. | Mandeep Kaur | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level Indicator |
| 40. | Jashanpreet kaur | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level Indicator |
| 41. | Ashveer Kaur | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level Indicator |
| 42. | Anuj | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level Indicator |
| 43. | Harpreet Singh | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level Indicator |
| 44. | Arshdeep Kaur | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level Indicator |
| 45. | Anureet Kaur | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level Indicator |
| 46. | Sehajpreet Kaur | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level Indicator |
| 47. | Ravinderpal Kaur | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level Indicator |
| 48. | Komal | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level Indicator |
| 49. | Sukhman Kaur | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level Indicator |
| 50. | Yudhveer Singh | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level Indicator |
| 51. | Hussanpreet Kaur | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level Indicator |
| 52. | Nandini Girdhar | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level Indicator |
| 53. | Ravneet Kaur | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level Indicator |

| 54. | Satwinder Kaur | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level |
|-----|--|---------|-----------------------|--------------------------------|
| | | | | Indicator |
| 55. | Gursharandeep | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level |
| | Singh | | | Indicator |
| 56. | Gurleen Kaur | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level |
| | | | | Indicator |
| 57. | Anvait Kaur | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level |
| | | | | Indicator |
| 58. | Vijay Brar | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level |
| | | | | Indicator |
| 59. | Mehakpreet | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level |
| | Kaur | | | Indicator |
| 60. | Gurshan singh | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level |
| | | | | Indicator |
| 61. | Lakakshi | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level |
| | | | , | Indicator |
| 62. | Simarjeet Kaur | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level |
| | 3 | | , | Indicator |
| 63. | Ritu | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level |
| | | | , | Indicator |
| 64. | Neeru Bala | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level |
| | | | | Indicator |
| 65. | Neelakshi | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level |
| | 1 (0 0 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | 202120 | | Indicator |
| 66. | Amritpal singh | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level |
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| 67. | Parvish Kumar | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level |
| 07. | 1 wi vion itanim | 202123 | 2.23. (1 ton meanour) | Indicator |
| 68. | Annanya | 2024-25 | B.Sc. (Non medical) | Mobile Protection, Water Level |
| 00. | 1 1111111111111111111111111111111111111 | 202123 | 2.23. (1 ton meanour) | Indicator |
| | | 1 | | 11111111111111 |

6. Feedback by Students: nil

7. Video/You-tube Link:

 $\underline{https://www.facebook.com/share/p/yuUWiUY83etnb9Hb/?mibextid=qi2Omg}$

8. Outcome of the Activity: Hands on Training Workshop for Physics Practicals was a very good platform for students to themselves fabricate a circuit. Now they can easily repair home appliances, UPS batteries, LED's etc.

A total of 51 projects were made. The skills developed by students include:

- Problem solving skills
- Experimental skills
- Analytical skills
- Innovation

PROJECTS DONE:

- 1)Fire Alarm
- 2) Water level indicator
- 3) Mobile protector
- 4) Smart Dustbin
- 5) IR Remote control
- 6) Automatic Tap

9. Attach Geo Tagged Photographs:





PG Department of Physics Hosts Hands-on Training Workshop on Electronics Projects

The Postgraduate Department of Physics organized a "Hands-on Training Workshop on Electronics Projects" from September 9 to 14, 2024, under the Star College Scheme of the Department of Biotechnology (DBT), New Delhi, Government of India. The workshop featured sessions led by subject expert Er. Sukhvinder Singh, who guided students through the creation of various electronic projects. The students from B.Sc I developed a working project focused on mobile protection, while B.Sc III students demonstrated their skills with Arduino board projects such as a smart dustbin, fire alarm, and automated plant watering system. The students showed great enthusiasm and actively participated in the workshop, gaining valuable practical experience. Principal Dr. Neena Mehta praised the efforts of Dr. Anita Rani, Head of the Department, and the faculty members for successfully organizing the workshop. She encouraged the department to continue hosting such events in the future to foster innovation and practical learning

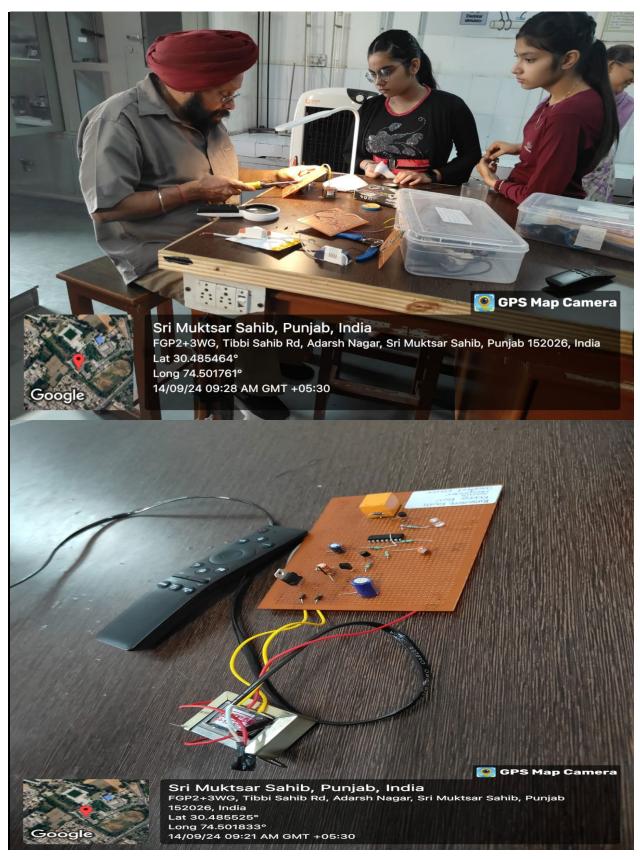














Closing Ceremony of One-Week Hands-on Training Workshop on Electronic Projects

The closing ceremony of a one-week hands-on training workshop on electronic projects, organized by the Postgraduate Department of Physics under the Star College Scheme of DBT, New Delhi, was held from September 9-14, 2024. The workshop aimed to enhance practical skills in electronics among students and was a major success, with enthusiastic participation throughout.

During the prize distribution function, awards were presented to students based on their performance in the workshop. Best Performer Awards and Certificates of Appreciation were distributed. Additionally, students who secured the top three positions in the Panjab University Chandigarh exams for the session 2023-24 were honored with mementos.

Students from all classes shared their experiences during the workshop, expressing appreciation for the efforts and guidance provided by the subject expert, Er. Sukhvinder Singh, Head of the Department (HOD), and the entire faculty. They also requested the organization of similar events in the future to continue fostering practical learning.

The ceremony concluded with S. Manjit Singh Barkandi, Secretary of the Local Managing Committee, and Principal Dr. Neena Mehta, commending the dedication of the subject expert Er. Sukhvinder Singh, Dr. Anita Rani, HOD of Physics, and all faculty members. A vote of thanks was delivered





The ceremony concluded with S. Manjit Singh Barkandi, Secretary of the Local Managing Committee, and Principal Dr. Neena Mehta, commending the dedication of the subject expert Er. Sukhvinder Singh, Dr. Anita Rani, HOD of Physics, and all faculty members. A vote of thanks was delivered by Dr. Anita Rani, marking the official end of the workshop.











Best Performers:-

| Best | B.Sc. I (N.M.) | B.Sc. II (N.M.) | B.Sc. III (N.M.) |
|------------|----------------|-----------------|--------------------|
| performers | | | |
| | | | |
| 1. | Simarjeet Kaur | Shivam | Harsamrendeep Kaur |
| 2. | Sukhman Kaur | Arpan Kumar | Gagandeep Kaur |
| 3. | ShabadjotSingh | Arshdeep Kaur | Jashanpreet Kaur |

- **10. Members of the Organizing Committee:** Dr. Anita Rani, Ms. Rajveer Kaur, Ms. Jeevanjot Kaur and Ms. Sandeep Kaur
- 11. Name of the Department Coordinator: Dr. Anita Rani

Dr. Anita Rani DBT Program Coordinator Dr. Rana Baljinder Kaur Principal