

Dr. Anil Kumar Singh

Assistant Professor (Microbiology), GES Class - II
Government Science College, Vankal
Tal – Mangrol, Dist- Surat - 394430
Gujarat, India.

Email: anilkumar.singh@gujgov.edu.in, aksingh.gscv@gmail.com

Phone: +91-7990205836/9825574989



ACADEMIC CREDENTIALS

- **Ph.D. Microbiology** (2011), Title: “Studies on biocontrol of fusarium wilt of *Cajanus cajan* by *Paenibacillus* sp. D1 and *Streptomyces* sp. A6”, M. S. University of Baroda, Vadodara, India.
(Online link: <http://hdl.handle.net/10603/72079>)
- **M.Sc. Microbiology 2005** (66.2%), M. S. University of Baroda, Vadodara, India.
- **B.Sc. Microbiology 2003** (67.7 %), S. P. University, V. V. Nagar, Anand, India.
- **AISSCE (12th), 2000** (73.4%), CBSE, New Delhi, India.
- **AISSE (10th), 1998** (79.6%), CBSE, New Delhi, India.
- **ICAR NET (Agricultural Microbiology, 2014)** (57%), ASRB, New Delhi, India.
- **GSET (Life Sciences), 2015** (71.4%), GSET, Vadodara, India
- **CSIR NET, 2016** (58.5%, AIR-20), CSIR, New Delhi, India.
- **GPSC** (for appointment as assistant professor in GES), **2016 (Rank 2)**
- **CCC Exam, 2015 (C grade)**, NIELIT, New Delhi, India.
- **CCC+ Exam, 2019 SPIPA, Surat, India.**

TEACHING EXPERIENCE

- Working as Assistant Professor (GES-Class II) since 14th July 2018 at Department of Microbiology, Government Science College, Vankal, Surat, Gujarat.
- Worked as Assistant Professor (16th Feb 2012 - 13th July 2018) at Department of Biotechnology, Shree M. & N. Virani Science College, Rajkot, Gujarat, India.
- Worked as a visiting faculty for M.Sc. Bioinformatics (2007-2009) at The M. S. University of Baroda, Gujarat, India.
- Worked as temporary teaching assistant for M.Sc. Microbiology (July 2010) at Department of Microbiology and Biotechnology Centre, The M. S. University of Baroda, Gujarat, India.

RESEARCH PROFILE

Research Experience: 16 years

Research papers: International: 19 (Published); 03: Communicated

Book chapters: 03

Google scholar profile: <https://scholar.google.com/citations?user=N11mwaQAAAAJ>

Google Scholar H-index: 12

Google Scholar i10- index: 13

Citations: 912 (as on 15-03-2024)

Recognized Ph. D Supervisor at VNSGU, Surat

COMPLETED PROJECTS

1. **Principal Investigator in UGC CELL VNSGU** sponsored minor research project on “Development of novel quorum sensing inhibitor based protectants against plant pathogenic bacteria” (**July 2023 - Till date**) **Sanctioned amount Rs. 198950.**
2. **Principal Investigator in GSBTM** sponsored **major research project** on “Evaluation of different elicitors for bio-priming of in vitro grown banana plantlets against fungal and bacterial pathogens” (**August 2014- July 2017**). **Sanctioned amount Rs. 12,76,920**
3. **Principal Investigator in UGC minor project** on “Evaluation of elicitors and PGPR as vaccine candidates against fungal pathogens for micropropagated banana plantlets” (**June 2014 – May 2016**). **Sanctioned amount Rs. 3,20,000**

RESEARCH EXPERIENCE

- Worked as **UGC-Dr. D.S. Kothari Postdoctoral Fellow** on “Deciphering the molecular mechanism of plant growth promotion by rhizobacteria using transcriptome analysis of interacting partners” (**August 2011 to January 2012**) at Department of Plant Sciences, School of Life Sciences, University of Hyderabad, Hyderabad, A.P, India.
- Worked as **Senior Research Fellow** on Council for Scientific and Industrial Research (CSIR) sponsored project entitled “Selection of suitable combination of chitosan and plant growth promoting rhizobacteria (PGPR) for tomato and elucidate the mechanism using molecular approaches” (**August 2010 - July 2011**) at Department of Plant Sciences, School of Life Sciences, University of Hyderabad, Hyderabad, A.P, India.
- Worked as **Ph.D student** under the guidance of Prof. H.S Chhatpar on “Studies on biocontrol of fusarium wilt of *Cajanus cajan* by *Paenibacillus* sp. D1 and *Streptomyces* sp. A6” (**2007-2011**) at Department of Microbiology and Biotechnology Centre, The M.S.University of Baroda, Gujarat, India.

- Worked as **JRF and SRF** on Gujarat State Biotechnology Mission (GSBTM) sponsored major project on “**Environmental and Agricultural Biotechnology**” (2005-2008) at Department of Microbiology and Biotechnology Centre, The M.S.University of Baroda, Gujarat, India.
- Worked on a **dissertation project** entitled “Characterization and application of phytase producing rhizobacteria for increasing phosphate availability to plants” under the guidance of Dr. G. Archana for partial fulfilment of M.Sc. programme (2003-2005) at Department of Microbiology and Biotechnology Centre, The M.S.University of Baroda, Gujarat, India.

PUBLICATIONS

Research and Review papers:

1. Singh, A.A., **Singh, A.K.**, 2023. Role of quorum sensing in plant growth promotion. **Research in Microbiology. Submitted.**
2. Singh, A.A., **Singh, A.K.**, Nerurkar, A. 2021. Disrupting the quorum sensing mediated virulence in soft rot causing *Pectobacterium carotovorum* by marine sponge associated *Bacillus* sp.OA10. **World Journal of Microbiology and Biotechnology** 37: 5. **IF: 2.47**. ISSN: 1573-0972. DOI: 10.1007/s11274-020-02982-4.
3. Singh, A.A., **Singh, A.K.**, Nerurkar, A. 2020. Bacteria associated with marine macroorganisms as potential source of quorum sensing antagonists. **Journal of Basic Microbiology** 60(9), 799-808. **IF: 1.909**. ISSN: 1521-4028. DOI:10.1002/jobm.202000231.
4. **Singh, A.K.**, Joshi, P. Operations Green: Building a better world for the Indian farmers. **Kurukshetra: A journal of rural development** (Ministry of Rural Development, GoI).
5. Chauhan, U., **Singh, A.K.**, Godani, D., Handa, S., Gupta, P.S., Patel, S., Joshi, P. Some natural extracts from plants as low-cost alternatives for synthetic PGRs in rose micropropagation. **Journal of Applied Horticulture**, 20(2), 2018. ISSN: 0972-1045. UGC No. 21393
6. Singh, A., **Singh, A.K.** 2018. Isolation, characterization and exploring biotechnological potential of halophilic archaea from salterns of western India. **3 Biotech** 8(1):45. doi: 10.1007/s13205-017-1072-3. ISSN: 2190-5738 (electronic version), **IF: 1.798**, UGC No. 99
7. Singh, A., **Singh, A.K.** 2017. Haloarchaea: Worth exploring for their biotechnological potential. **Biotechnology Letters**. 39: 1793. <https://doi.org/10.1007/s10529-017-2434-y>. ISSN No. 0141-5492 (Print), 1573-6776 (Online). **IF: 1.977**, UGC No. 14916

8. Ghadia, B., **Singh, A.K.**, Khatnani, T., Hirpara, M., Patel, S. Joshi P., 2016. An improved method of DNA purification from secondary metabolites rich medicinal plants using certain chaotropic agents. **Acta Physiologiae Plantarum**. 38: 207. Doi:10.1007/s11738-016-2223-6. ISSN No. 0137-5881 (Print) 1861-1664 (Online). **IF: 1.76** UGC No. 720
9. **Singh, A.K.**, Tala, T., Tanna, M., Nirmal, D., Joshi P. 2016. Effect of exogenous supply of salicylic acid on in vitro growth and development of rose micropropagules. **International Journal of Recent Scientific Research**. 7(6): 12034-12039. ISSN No. 0976-3031. UGC No.46629
10. **Singh, A.K.**, Tala, T., Tanna, M., Patel, H., Sudra, P., Mungra, D., Nirmal, D., Khatnani, T, Joshi P. 2016. Exogenous supply of salicylic acid results into better growth of banana propagules under in vitro conditions. **International Journal of Recent Scientific Research**. 7(3): 9488-9493. ISSN No. 0976-3031. UGC No. 46629
11. **Singh, A.K.**, Singh, A., Joshi, P., 2016. Combined application of chitinolytic bacterium *Paenibacillus* sp. D1 with low doses of chemical pesticides for better control of *Helicoverpa armigera*. **International Journal of Pest Management**. 62 (3): 222-227. **IF: 1.091**. ISSN No. 0967-0874 (Print), 1366-5863 (Online). UGC No. 23315
12. Faldu, N., Patel, S., Vishwakarma, N.P., **Singh, A.K.**, 2014. Genetic Diversity of Marine and Fresh Water Cyanobacteria from the Gujarat State of India. **Advances in Bioscience and Biotechnology**. 5: 1061-1066. **IF: 0.68**. ISSN No. 2156-8502
13. **Singh, A.K.**, Chhatpar, H.S., 2011. Combined use of *Streptomyces* sp. A6 and chemical fungicides against *Fusarium udum* may reduce the dosage of fungicides required in the fields. **Crop Protection**. 30: 770-775. DOI: 10.1016/j.cropro.2011.03.015. **IF: 2.381**. UGC No. 14043
14. **Singh, A.K.**, Chhatpar, H.S., 2011. Purification, characterization and thermodynamics of antifungal protease from *Streptomyces* sp. A6. **Journal of Basic Microbiology**. 51: 1-9. DOI: 10.1002/jobm.201000310. **IF: 1.909**. UGC No. 21565
15. **Singh, A.K.**, Chhatpar, H.S., 2011. Purification and characterization of chitinase from *Paenibacillus* sp. D1. **Applied Biochemistry and Biotechnology**. 164: 77-88. DOI: 10.1007/s12010-010-9116-8. **IF: 2.277**. Print ISSN: 0273-2289 Online ISSN: 1559-0291. UGC No. 15918
16. **Anil Kumar Singh.**, 2010. Optimization of culture conditions for thermostable chitinase production by *Paenibacillus* sp. D1. **African Journal of Microbiology Research**. 4(21): 2291-2298. **IF: 0.528**. ISSN No. 1996-0808

17. **Singh, A.K.**, Chhatpar, H.S., 2010. Optimization of protease production by *Streptomyces* sp. A6 using statistical approach for reclamation of shellfish waste. **World Journal of Microbiology and Biotechnology**. 26(9): 1631-1639. DOI: 10.1007/s11274-010-0339-1. **IF: 2.47**. ISSN: 0959-3993 (print version) ISSN: 1573-0972 (electronic version)
18. Patel, K.J., **Singh, A.K.**, Nareshkumar, G., Archana, G., 2010. Organic-acid-producing phytate-mineralizing rhizobacteria and their effect on growth of pigeon pea (*Cajanus cajan*). **Applied Soil Ecology**. 44(3): 252-261. DOI: :10.1016/j.apsoil.2010.01.002 **IF: 2.399**. **ISSN No.** 0929-1393
19. **Singh, A.K.**, Ghodke, I., Chhatpar, H.S., 2009. Pesticide tolerance of *Paenibacillus* sp. D1 and its chitinase. **Journal of Environmental Management**. 91(2): 358-362. **IF: 3.187**, DOI: 10.1016/j.jenvan.2009.09.001. **IF: 2.37**
20. **Singh, A.K.**, Mehta, G., Chhatpar, H.S., 2009. Optimization of medium constituents for improved chitinase production by *Paenibacillus* sp. D1 using statistical approach. **Letters in Applied Microbiology**. 49(6): 708-714. DOI: 10.1111/j.1472-765X.2009.02731.x. **IF: 2.173**
21. Gohel, V., **Singh, A.K.**, Maisuria, V., Phadnis, A., and Chhatpar, H.S. 2006. Bioprospecting and antifungal potential of chitinolytic microorganisms. **African Journal of Biotechnology**. 5(2): 54-72. **IF: 0.56**
22. **Singh, A.K.**, Ghodke, I., Chhatpar, H.S. Synergism between *Paenibacillus* sp. D1 and fungicides for control of fungal plant pathogens. **Communicated**.
23. Singh, A., Singh, A.K. Cloning, heterologous expression and purification of Ribosomal protein S4 from *Halobacterium* sp. SP1(1). **Applied Biochemistry and Biotechnology**. **Communicated**.
24. Singh, A.A., Singh, A.K., Nerurkar, A. Disrupting the quorum sensing mediated virulence in soft rot causing *Pectobacterium carotovorum* by marine sponge associated Bacillus sp. OA10. **World Journal of Microbiology and Biotechnology**. **Communicated**.

Book Chapters:

1. Singh A and **Singh, A.K.** 2019. Diversity and importance of halophiles in fermented foods. In: Joshi, S.J. and Joshi, G.S. Eds. Recent advances in biotechnology. Nova Science Publishers. 98-110. ISBN: 1536158607, 9781536158601
2. **Singh, A.K.** 2018. Elution of DNA bands from agarose gels. In: Life Science protocol manual. 339-341. Department of Biotechnology, Government of India. New Delhi.

3. **Singh, A.K.** 2018. Polymerase chain reaction (PCR). In: Life Science protocol manual. 349-355. Department of Biotechnology, Government of India. New Delhi.

PRESENTATIONS

1. Serve as a **resource person** at **GSBTM sponsored PG-N-BT-CBC and UG-N-BT-CBC crash workshops** for preparing P.G and U.G. students for national level competitive exams in life sciences at (1) Shree M. & N. Virani Science College, Rajkot. (2) ARIBAS, Vidyanagar, Anand (3) C.G. Bhakta Institute of Biotechnology, Uka Tarsadia University, Bardoli (4) Tolani College of Arts and Science, Adipur, Bhuj (5) Mehsana Urban Institute of Sciences, Ganpat University (6) Navrachana University, Vadodara. The details of the lectures taken as given in Annexure I.
2. **Anil Kumar Singh**, “Evaluating eco-friendly biological alternatives to synthetic agrochemicals in agriculture” Oral presentation at GSBTM sponsored one day National Conference on Academia-Industrial Interactions on Surfactants, Nanomaterials, Biosciences and Environmental Remediation on 09th Feb 2020, at P P Savani University, Surat.
3. **Anil Kumar Singh**, “Green alternatives to toxic chemicals in agriculture” Oral presentation at National Level Symposium, Atmiya Abhigyan on 28th Feb 2020, at ATMIYA University, Rajkot.
4. **Anil Kumar Singh**, “Wealth form waste: Bioconversion of chitinous waste for production of biocontrol agents and elicitors” poster presented at UGC-CAS National Conference on Biodiversity and Bioresource Utilization on 9-10th March 2017 at Saurashtra University, Rajkot.
5. **Anil Kumar Singh**, “Multifacet approach for ensuring food security” Oral presentation at UGC sponsored National level seminar on “Genetically modified food and food security” on 11th February 2017 at Shree M. & N. Virani Scienc College, Rajkot and won the **first prize** award.
6. **Anil Kumar Singh**, Isolation, characterization, diversity and biotechnological potential of halophilic archaea from slatterns of western India” Oral presentation at National level seminar on “Biodiversity, conservation and eco tourism” on 26-27th September 2016 at Maharana Pratap Government Post Graduate College, Chittorgarh, Rajasthan.
7. **Anil Kumar Singh**, Papa Rao V, Swarnalee Dutta and Appa Rao Podile “Isolation, characterization and identification of plant growth promoting rhizobacteria from tomato plants” poster presented at Asian PGPR Society Indian Group Meet on December 5th , 2011 at University of Hyderabad.

8. **Anil Kumar Singh** and H.S. Chhatpar, “Purification, characterization and thermodynamics of a chitinase from *Paenibacillus* sp. D1” poster presented at 2nd Annual meet of Indian Chitin and Chitosan Society (II-ICCS-2011) on 5th December 2011 at University of Hyderabad, Hyderabad.
9. **Anil Kumar Singh** and H.S. Chhatpar, “Purification and optimization of antifungal compound production from *Streptomyces* sp. A6” oral presentation at National Symposium on Biology of infection, immunity and disease control in pathogen-plant interactions on December 2-4, 2011 at University of Hyderabad, Hyderabad.
10. **Anil Kumar Singh**, Chhatpar H.S. and Podile A.R. “Synergistic antifungal activity of *Paenibacillus* sp. D1 and chemical fungicides against *Fusarium udum*” poster presented at National Symposium on Integrated Disease Management Strategies in Relation to Climate Change in South India on October 14-15, 2011 at UAS, Dharwad and won the **Best Poster (first prize)** award.
11. **Anil Kumar Singh**, Dhiren Joshi and H.S. Chhatpar, “Isolation, Characterization and chitinase production by *Paenibacillus* sp.” poster presented for 75th Annual SBC conference on December 8-11, 2006 At JNU, New Delhi.

SEMINARS/WORKSHOPS/CONFERENCES ATTENDED

1. Participated as delegate in ICMR sponsored National level workshop on “Advanced Instrumental Techniques in Herbal Drug Research” held on 28-29th April 2017 at Atmiya Institute of Pharmacy, Rajkot.
2. Attended 9th National level science symposium 2016 on 14th February 2016 organized by Christ College, Rajkot, Gujarat as Judge for **oral research presentation**.
3. Attended 5th International Conference on “Human Values in Higher Education” from 8-10 January 2016, organised by Atmiya Group of Institutions.
4. One day seminar on “Widening Horizons of Microbiology” on 28th February 2015 at Department of Microbiology, Shree M. & N. Virani Science College, Rajkot, Gujarat.
5. DBT sponsored national level symposium on “Emerging Trends in Life Sciences” on 16th February 2014 at Department of Biotechnology, Shree M. & N. Virani Science College, Rajkot, Gujarat.
6. One day online “Author workshop National Live WebEx by Keith Lambert” on 11th September 2013

7. One day national seminar on “Expanding Horizons of Microbiology” on 17th August 2013 at Department of Microbiology and Biotechnology Centre, M.S University of Baroda, Vadodara.
8. DBT sponsored faculty development workshop on “Maintenance of Opto-Analytical Instruments” from 19-23 August 2013 at Department of Chemistry, Shree M. & N. Virani Science College, Rajkot, Gujarat
9. One day workshop on “Assessment and Accreditation by NAAC” organized by IQAC and UGC: Academic Staff College, Saurashtra University, Rajkot on 21 January 2013
10. 2nd Indian group meeting of Asian PGPR Society for Sustainable Agriculture on 22-23rd Oct 2012 at Department of Biochemistry, M.S University of Baroda, Vadodara.
11. One day DBT sponsored state level “Entrepreneurship Orientation Program” on 28th August 2012 at Shree M. & N. Virani Science College, Rajkot, Gujarat
12. Contributed as session coordinator at GSBTM sponsored crash workshop from 28th April – 5th May 2012 at Shree M. & N. Virani Science College, Rajkot, Gujarat
13. Participated as steering committee member in two day Science Academies Lecture Workshop on “Recent Advances in Biological Sciences” from 5-6th March 2012 at Shree M. & N. Virani Science College, Rajkot, Gujarat.
14. One day Plant Sciences Colloquium held at University of Hyderabad on 18th September 2010.
15. One day international seminar on “Silencing the Message: mi and si RNAs” organized by Society of Biological Chemists (I), Baroda Chapter on 27th Nov 2008 at M. S. University of Baroda, Vadodara.

ORIENTATION PROGRAMME AND REFRESHER COURSES ATTENDED

1. **UGC sponsored refresher course** at MMTTC Gujarat University, Ahmedabad from 18 December 2023 to 31 December 2023.
2. **UGC sponsored refresher course** at HRDC Sardar Patel University, V.V Nagar from 21 February 2022 to 05 March 2022.
3. **UGC sponsored Faculty Induction Programme (Guru Dakshta)** at HRDC Sardar Patel University, V.V Nagar from 21 September 2020 to 20 October 2020.
4. **UGC sponsored refresher course** (special summer school) at Smt. C.R. Gardi academic staff college, Saurashtra University from 02 June 2014 to 22 June 2014.
5. **UGC sponsored orientation programme** at Smt. C.R. Gardi academic staff college, Saurashtra University from 31 December 2012 to 27 January 2013.

MEMBER OF ACADEMIC AND COLLEGE COMMITTEES

1. **Member of Board of Studies in Microbiology** (UG and PG) of Kachchh University, Bhuj.
2. **Member of Doctoral Review Committee** of Atmiya University, Rajkot.
3. **Member of Board of Studies in Biotechnology** of Shree MNVSC, Rajkot.
4. **Coordinator** of Undergraduate-Capacity Building Cell (**UG-CBC**) of GSBTM at GSC Vankal
5. **Coordinator** of Entrepreneurship Capacity Building Cell (**E-CBC**) of GSBTM at GSC Vankal
6. Coordinator of **SSIP** cell at Government Science College, Vankal, Surat.
7. **Coordinator** of the **Innovation Club** at Government Science College, Vankal, Surat.
8. **Mentor** of **Standard Club** at Government Science College, Vankal, Surat.
9. **Mentor** of **Consumer Club** at Government Science College, Vankal, Surat.
10. **Nodal officer** for Entrepreneurship Cell at Government Science College, Vankal, Surat.
11. **Ambassador of Microbiologists Society of India (MBSI)** for “Microbiology Literacy Program for School Students”.
12. Member of Notice board Committee at Government Science College, Vankal, Surat.
13. Resource person of Value Education Cell at Atmiya Group of Institutions.

PAPER SETTER AND EXAMINERSHIP

1. Paper setter and Examiner for B.Sc. and M.Sc. Microbiology and Biotechnology Programmes at Atmiya University, Rajkot
2. Paper setter and Examiner for B.Sc. Microbiology Programme at Kachchh University, Bhuj.
3. Paper setter and Examiner for M.Sc. Chemistry Programme at BKNMU, Junagadh.
4. Paper setter and Examiner for B.Sc. and M.Sc. Programmes at Shree MNVSC, Rajkot
5. Paper setter and Examiner for B.Sc. Microbiology at P P Savani University, Kosamba, Surat.
6. Paper setter and Examiner for B.Sc. Microbiology Programme at R. K University, Rajkot.

TECHNICAL SKILLS

- Microbiological techniques
- Protein purification techniques
- Molecular biology techniques
- Knowledge on medium optimization, fermentation and downstream processing
- Techniques used in enzymology
- Knowledge of enzyme kinetics and thermodynamics

- Knowledge of statistical tools used in biology
- Basic computer knowledge

PERSONAL DETAILS

Date of Birth : 6th Dec. 1982
Gender : Male
Marital Status : Married
Languages known : English, Hindi, Gujarati

Annexure - I

Invited lectures at GSBTM Sponsored State level crash workshops on preparation for national level competitive exams in life sciences

1. GSBTM sponsored UGBTCBC Crash workshop for UG students (S.Y. BSc.) on preparation for National Level Competitive Exams organized by C.G Bhakta Institute of Biotechnology, UTU, Bardoli from 04/03/2022 – 15/03/2022. Title of Talk: Regulation of Gene Expression and Chromatographic Techniques (07/03/2022)
2. GSBTM sponsored UGBTCBC Crash workshop for UG students (T.Y. BSc.) on preparation for National Level Competitive Exams organized **Online** by Shree M. & N. Virani Science College, Rajkot from. Title of Talk: Microbial Genetics (07/02/2021)
3. GSBTM sponsored UGBTCBC Crash workshop for UG students (T.Y. BSc.) on preparation for National Level Competitive Exams organized **Online** by Tolani College of Arts and Science, Adipur from 22/01/2021 – 03/02/2021. Title of Talk: Regulation of Gene Expression (25/01/2021)
4. GSBTM sponsored UGBTCBC Crash workshop for UG students (T.Y. BSc.) on preparation for National Level Competitive Exams organized **Online** by St. Xaviers College, Ahmedabad from 24/12/2020 – 30/12/2020. Title of Talk: Ecological Principles (24/12/2020), Advanced Molecular Techniques (28/12/2020) and Separation techniques (29/12/2020)
5. GSBTM sponsored Online PGBTCBC Crash Workshop for PG Students on Preparation for CSIR-UGC-NET/JRF Exam organized **online** by Navrachana University from 20/10/2020 to 31/10/2020. Titles of Talk: Principles of Ecology (29/10/2020)
6. GSBTM sponsored UGBTCBC Crash workshop for UG students (T.Y. BSc.) on preparation for National Level Competitive Exams organized **Online** by Shree M. & N. Virani Science College, Rajkot from 25/06/2020 – 28/06/2020. Title of Talk: Electrophoretic and Chromatographic Separation Techniques (25/06/2020)
7. GSBTM sponsored Online PGBTCBC Crash Workshop for PG Students on Preparation for CSIR-UGC-NET/JRF Exam organized **online** by GSBTM from 01/05/2020 to 13/05/2020. Titles of Talk: (1) Bacterial genetics (on 5th May 2020) (2) Gene detection and gene expression techniques on (6th May 2020) (3) Principles of Ecology (on 13th May 2020)
8. GSBTM sponsored UGBTCBC Crash workshop for UG students (S.Y. BSc.) on preparation for National Level Competitive Exams organized by C.G Bhakta Institute of Biotechnology, UTU, Bardoli from 09/02/2020 – 14/02/2020. Title of Talk: Analytical Techniques: Electrophoretic and Chromatographic Techniques (19/02/2020)
9. GSBTM sponsored UGBTCBC Crash workshop for UG students (T.Y. BSc.) on preparation for National Level Competitive Exams organized by Tolani College of Arts and Science, Adipur, Bhuj from 03/02/2020 – 20/02/2020. Title of Talk: Fundamentals and Advances in Virology (17/02/2020)
10. GSBTM sponsored UGBTCBC Crash workshop for UG students (S.Y. BSc.) on preparation for National Level Competitive Exams organized by Tolani College of Arts and Science, Adipur, Bhuj from 03/02/2020 – 20/02/2020. Title of Talk: Antibiotics and their mode of action (17/02/2020)
11. GSBTM sponsored UGBTCBC Crash workshop for UG students (T.Y. BSc.) on preparation for National Level Competitive Exams organized by C.G Bhakta Institute of Biotechnology, UTU, Bardoli from 2/01/2020 – 13/01/2020. Title of Talk: Regulation of Gene Expression in Prokaryotes (06/01/2020)
12. GSBTM sponsored UGBTCBC Crash workshop for UG students (T.Y. BSc.) on preparation for National Level Competitive Exams organized by Mehsana Urban Institute of Sciences, Ganpat University from 18/12/2019 – 28/12/2019. Title of Talk: Chromatography Techniques (28/12/2019)
13. GSBTM sponsored PGBTCBC Crash Workshop for PG Students on Preparation for CSIR-UGC-NET/JRF Exam organized by ARIBAS, New Vidyanagar, Anand from 04/12/2019 – 09/12/2019. Title of Talk: Advanced Molecular Techniques (08/12/2019)
14. GSBTM sponsored PGBTCBC Crash Workshop for PG Students on Preparation for CSIR-UGC-NET/JRF Exam organized by Shree M. & N. Virani Science College, Rajkot from 27/11/2019 – 04/12/2019. Title of Talk: Advanced Molecular Techniques (02/12/2019)
15. GSBTM sponsored UGBTCBC Crash workshop for UG students (T.Y. BSc.) on preparation for National Level Competitive Exams organized by Shree M. & N. Virani Science College, Rajkot from 28/11/2019 – 3/12/2019. Title of Talk: Microbial Genetics (01/12/2019)

16. GSBTM sponsored PGBTCBC Crash Workshop for PG Students on Preparation for CSIR-UGC-NET/JRF Exam organized by Shree M. & N. Virani Science College, Rajkot from 08/06/2019 – 13/06/2019. Title of Talk: Microbial Genetics (08/06/2019)
17. GSBTM sponsored PGBTCBC Crash Workshop for PG Students on Preparation for CSIR-UGC-NET/JRF Exam organized by ARIBAS, New Vidyanagar, Anand from 26/05/2019 – 31/05/2019. Title of Talk: Advanced Molecular Techniques (07/05/2019)
18. GSBTM sponsored UGBTCBC Crash workshop for UG students (S.Y. BSc.) on preparation for National Level Competitive Exams organized by Shree M. & N. Virani Science College, Rajkot from 27/04/2019 – 30/04/2019. Title of Talk: Antibiotics and their mode of action (27/04/2019)
19. GSBTM sponsored UGBTCBC Crash workshop for UG students (T.Y. BSc.) on preparation for National Level Competitive Exams organized by Shree M. & N. Virani Science College, Rajkot from 24/04/2019 – 29/04/2019. Title of Talk: Gene Regulation (27/04/2019)
20. GSBTM sponsored UGBTCBC Crash workshop for UG students (T.Y. BSc.) on preparation for National Level Competitive Exams organized by Tolani College of Arts and Science, Adipur, Bhuj from 9/04/2019 – 14/04/2019. Title of Talk: Regulation of Gene Expression (11/04/2019)
21. GSBTM sponsored UGBTCBC Crash workshop for UG students (T.Y. BSc.) on preparation for National Level Competitive Exams organized by C.G Bhakta Institute of Biotechnology, UTU, Bardoli from 17/01/2019 – 22/01/2019. Title of Talk: Regulation of Gene Expression in Prokaryotes (17/01/2019)
22. GSBTM sponsored PGBTCBC Crash Workshop for PG Students on Preparation for CSIR-UGC-NET/JRF Exam organized by Shree M. & N. Virani Science College, Rajkot from 01/12/2018 – 06/12/2018. Title of Talk: Advanced Molecular Techniques (02/12/2018)
23. GSBTM sponsored PGBTCBC Crash Workshop for PG Students on Preparation for CSIR-UGC-NET/JRF Exam organized by Shree M. & N. Virani Science College, Rajkot from 02/06/2018 – 07/06/2018. Title of Talk: Microbial Genetics (06/06/2018)
24. GSBTM sponsored UGBTCBC Crash workshop for UG students (S.Y. BSc.) on preparation for National Level Competitive Exams organized by Shree M. & N. Virani Science College, Rajkot from 30/03/2018 – 02/04/2018. Title of Talk: Community Interactions (1/04/2018)
25. GSBTM sponsored UGBTCBC Crash workshop for UG students (T.Y. BSc.) on preparation for National Level Competitive Exams organized by Shree M. & N. Virani Science College, Rajkot from 01/04/2017 – 08/04/2017. Title of Talk: Analytical Techniques
26. GSBTM sponsored UGBTCBC Crash workshop for UG students (S.Y. BSc.) on preparation for National Level Competitive Exams organized by Shree M. & N. Virani Science College, Rajkot from 06/04/2017 – 09/04/2017. Title of Talk: Photorespiration
27. GSBTM sponsored UGBTCBC Crash workshop for UG students (T.Y. B.Sc.) on preparation for National Level Competitive Exams organized by Shree M. & N. Virani Science College, Rajkot from 26/01/2017 – 29/01/2017. Title of Talk: Important Concepts of Ecology
28. GSBTM sponsored UGBTCBC Crash workshop for UG students (T.Y. B.Sc.) on preparation for National Level Competitive Exams organized by Shree M. & N. Virani Science College, Rajkot from 23/04/2016 – 30/04/2016. Title of Talk: Microbial genetics
29. GSBTM sponsored UGBTCBC Crash workshop for UG students (S.Y. B.Sc.) on preparation for National Level Competitive Exams organized by Shree M. & N. Virani Science College, Rajkot from 16/03/2016 – 19/03/2016. Title of Talk: Photorespiration
30. GSBTM sponsored UGBTCBC Crash workshop for UG students (T.Y. B.Sc.) on preparation for National Level Competitive Exams organized by Shree M. & N. Virani Science College, Rajkot from 29/02/2016 – 03/03/2016. Title of Talk: Bacterial Growth and Sterilization
31. GSBTM sponsored UGBTCBC Crash workshop for UG students (T.Y. B.Sc.) on preparation for National Level Competitive Exams organized by Shree M. & N. Virani Science College, Rajkot from 25/04/2015 – 02/05/2015.
32. GSBTM sponsored UGBTCBC Crash workshop for UG students (T.Y. B.Sc.) on preparation for National Level Competitive Exams organized by Shree M. & N. Virani Science College, Rajkot from 15/02/2015 – 18/02/2015. Title of Talk: Microbial control
33. GSBTM sponsored UGBTCBC Crash workshop for UG students (S.Y. B.Sc.) on preparation for National Level Competitive Exams organized by Shree M. & N. Virani Science College, Rajkot from 12/06/2014 – 17/06/2014. Title of Talk: Antibiotics: Mechanism of Action
34. GSBTM sponsored UGBTCBC Crash workshop for UG students (T.Y. B.Sc.) on preparation for National Level Competitive Exams organized by Shree M. & N. Virani Science College, Rajkot from 19/04/2014 – 26/04/2014. Title of Talk: Immune dysfunction and Post - translational Mechanisms

35. GSBTM sponsored UGBTCBC Crash workshop for UG students (T.Y. B.Sc.) on preparation for National Level Competitive Exams organized by Shree M. & N. Virani Science College, Rajkot from 01/05/2013 – 08/05/2013.
36. GSBTM sponsored UGBTCBC Crash workshop for UG students (T.Y. B.Sc.) on preparation for National Level Competitive Exams organized by Shree M. & N. Virani Science College, Rajkot from 28/04/2012 – 05/05/2012.