Sushil K. Maurya, Ph. D

Associate Professor,
Department of Chemistry,
Faculty of Science, University of Lucknow
(Accredited A++ by NAAC)
Lucknow-226007 (UP) INDIA

Research Interest

Medicinal Chemistry, Chemical Biology, Synthetic Organic Chemistry, Natural Product Synthesis, Diversity-Oriented Synthesis, Catalysis Chemistry, Click-Chemistry.

Awards and Fellowships

- Early Career Research Award, SERB-DST, Govt. of India (Ref: ECR/2016/000134); Project: "Adjuvants Based on Hybrid Antibiotics to Combat Resistance: Design, Synthesis, and Versatile Therapeutic Evaluation of Novel Fluoroquinolone-Aminoglycoside Conjugates (FACs)". June 2016-June 2019, INR. 35.42 Lakhs.
- Marie Curie International Incoming Fellowship, one of the most prestigious and highly competitive fellowships awarded by the European Commission (Ref: PIIF-GA-2008-220512; Project: "MULTISCAFFOLD: A new strategy for the diversity-oriented synthesis of skeletally diverse alkaloid-like compounds for chemical genetic studies").
- Junior and Senior Research Fellowship: Qualified in CSIR-UGC joint exam for National eligibility for research and lectureship (Conducted by Council of Scientific and Industrial Research (CSIR) and University Grant Commission (UGC), New Delhi, India).

Professional Achievements

- i) October 2022-Present, **Associate Professor**, Department of Chemistry, Faculty of Science, University of Lucknow, Lucknow, India.
- ii) Feb. 2019-October 2022, **Principal Scientist**, Medicinal Chemistry, CSIR-IHBT, India and **Associate Professor**, AcSIR, CSIR-IHBT, India.
- iii) Feb. 2015-Present, Senior Scientist, Medicinal Chemistry, CSIR-IHBT, India and Assistant Professor, AcSIR, CSIR-IHBT, India.
- iv) April 2013- Feb. 2015, Group Leader, New Drug Discovery Division, Wockhardt Ltd., India.
- v) March 2011- March 2013, **Senior Research Scientist**, New Drug Discovery Division, Wockhardt Ltd., India.
- vi) Nov. 2008 Nov. 2010, Marie Curie Fellow, University of Leeds, Leeds, UK.
- vii) Oct. 2007- Sep. 2008, Post-Doctoral Fellow, Brandeis University and Harvard Medical School, USA.
- viii) May 2003- Jan. 2004, **Visiting Scientist**, Humboldt University, Berlin, Germany.
- ix) Aug. 2001- Aug. 2002, Junior Research Fellow, CIMAP, Lucknow, India.

Details of Projects: (Completed/Ongoing)

- Adjuvants Based on Hybrid Antibiotics to Combat Resistance: Design, Synthesis, and Versatile Therapeutic Evaluation of Novel Fluoroquinolone-Aminoglycoside Conjugates (FACs)" Rs. 35.42 Lakhs, 36 Months (June 2016-Dec 2019), PI, SERB, Govt. of India.
- CSIR INPROTICS-Pharma and Agro, Rs. 50.00 Lakhs, 26 Months (Feb 2018- March 2020), PI, CSIR, Govt. of India.
- ➤ CSIR-Aroma Mission, Rs. 1555.00 Lakhs, 32 Months, (July 2017-March 2020), Co-PI (PI-value addition), CSIR, Govt. of India.
- ➤ CSIR-Crop Protection Chemicals, Rs. 95.00 Lakhs, (Jan 2018-March 2020), PI, CSIR, Govt. of India.
- Diversity Oriented Synthesis: Exploring the chemical tools for scrutinizing biology (SERB-NPDF awarded to Dr. Simmi Sharma) Rs. 19.20 Lakhs, 24 Months (April 2017-March 2019), PI (Mentor), SERB, Govt. of India.
- CSIR-Aroma Mission Phase-II, Rs. 1555.00 Lakhs, 28 Months, (Dec. 2020-March 2023), Co-PI (PI-value addition), CSIR, Govt. of India.
- > Small Molecules for Leishmaniasis, Rs. 2.808 Lakhs, 12 Months (Feb 2023-Dec 2023), PI, (Drug for Neglected Diseases Initiative India Foundation (DNDi INDIA).
- CSIR-Integrated Skill Development Program, Rs. 80 Lakhs, 24 Months (April 2017-March 2019), Co-PI, CSIR Govt. of India.
- Skill Vigyaan Program (Lab Technician/Assistant), Course-Coordinator, 24 Months (April 2021-March 2023) DBT-HIMCOSTE, Govt. of Himachal Pradesh.

Education

- **Ph. D** In Chemistry, CSIR-National Chemical Laboratory (CSIR-NCL), Pune, India.
- M. Sc. In Chemistry, University of Lucknow, Lucknow, India.
- **B. Sc.** *In* Chemistry, Botany and Zoology, University of Lucknow, Lucknow, India.

Publications

- ★ Mahender Kumar, Kajal Kaliya and Sushil K. Maurya* (2023) "Recent progress in the homogeneous gold-catalysed Cycloisomerisation reactions" Org. Biomol. Chem., Advance Articledoi.org/10.1039/D2OB02015G.
- ❖ Arti Sharma, Prince Anand, Yogendra S. Padwad* and **Sushil K. Maurya*** (2022) "Novel 3-Metheneisoindolinones Diversified via Intramolecular Heck Cyclization Induces Oxidative Stress, Decreases Mitochondrial Membrane Potential, Disrupt Cell Cycle, and Induces Apoptosis in Head and Neck Squamous Cell Carcinoma Cells" ACS Omega doi.org/10.1021/acsomega.2c05378.
- * Rahul Kumar and **Sushil K. Maurya*** (2022) "Synthesis of γ-Butyrolactone Derivatives from Dihydrotagetone and Evaluation of Their Antidiabetic Activity" ChemistrySelect doi.org/10.1002/slct.202203064.

- ❖ Aakriti Sood, Rahul Upadhyay and **Sushil K. Maurya*** (2022) "Sustainable synthesis of carboxylic acids via oxidative scission of olefins over heterogeneous WO3-Na2SnO3 catalyst" Industrial Crops & Products 186,115139.
- ❖ Amita Kumari, Dinesh Kumar, Ashu Gulati and **Sushil K. Maurya*** (2021) "Studies on antioxidant capacity of polyphenol rich fractions of Kangra tea by HPTLC & NMR" Journal of Food Science and Technology doi.org/10.1007/s13197-021-05297-w.
- ❖ Simmi Sharma, Kajal Kaliya, Nandita Chauhan, Shudh Kirti Dolma, S.G. Eswara Reddy and **Sushil K. Maurya*** (2021) "Synthesis and screening of Kojic acid derivatives for their bio-efficacy against diamondback moth (Plutella xylostella L.)" Toxin Reviews doi.org/10.1080/15569543.2021.1996394.
- ❖ Rohit Rana, Shreya, Rahul Upadhyay and **Sushil K. Maurya*** (2021) "Synthesis of Macrocyclic Lactones and Dilactones Using Olive Oil". ACS Omega 6, 25381-25388.
- ❖ Rahul Upadhyay, Deepak Singh, and **Sushil K. Maurya*** (2021) "Highly efficient heterogeneous V2O5@TiO2 catalyzed the rapid transformation of boronic acids to phenols" Eur. J. Org. Chem. 3925–3931. (Highlighted in Synfacts 2021, 17(12), 1376, 17.11.2021)
- ❖ Rahul Upadhyay, Shashi Kumar, and **Sushil K. Maurya*** (2021) "V2O5@TiO2 catalyzed green and selective oxidation of alcohols, alkylbenzenes and styrenes to carbonyls" ChemCatChem 13(16) 3594-3600.
- ❖ Rahul Upadhyay, Rohit Rana, Aakriti Sood, Vikash Singh, Rahul Kumar, Vimal Chandra Srivastava and Sushil K. Maurya* (2021) "Heterogeneous vanadium-catalyzed oxidative cleavage of olefins for sustainable synthesis of carboxylic acids". Chem. Commun., 57, 5430-5433. "Featured in Org. Chem. Highlights: Oxidation" 21 March 2022 (https://www.organic-chemistry.org/Highlights/2022/21March.shtm)
- ❖ Rahul Upadhyay, Rohit Rana and **Sushil K. Maurya*** (2021) "Organocatalyzed C-N bond forming reactions for the synthesis of amine and amide". ChemCatChem 13(8) 1867-1897. https://doi.org/10.1002/cctc.202001734.
- ❖ Rahul Kumar, Sahil Mishra, Shreya and **Sushil K. Maurya*** (2021) "Recent advances in the discovery of potent RNA-dependent RNA-polymerase (RdRp) inhibitors targeting viruses". RSC Medicinal Chemistry 12, 306-320. https://doi.org/10.1039/D0MD00318B.
- ❖ Arti Sharma, Kajal Kaliya and **Sushil K. Maurya*** (2021) "Recent advances in discovery of potent proteases inhibitors targeting the SARS coronavirus". Current Topics in Medicinal Chemistry 21(4) 307-328. https://DOI:10.2174/1568026620999201111160035.
- * Rahul Upadhyay, Rahul Kumar, Manoj Jangra, Rohit Rana, Onkar Nayal, Hemraj Nandanwar and Sushil K. Maurya* (2020) "Synthesis of bioactive complex small molecules ciprofloxacin conjugates and evaluation of their antibacterial activity". ACS Combinatorial Science 22 (9) 440-445.
- ❖ Rohit Rana, Shudh Kirti Dolma, **Sushil K. Maurya*** & S. G. Eswara Reddy* (2020) "Insecticidal activity and structure–activity relationship of sugar embedded macrocycles for the control of aphid (Aphis craccivora Koch)". Toxin Reviews 39(2), 197-203.
- ❖ Rahul Upadhyay, Rohit Rana, Aakriti Sood and **Sushil K. Maurya* (2019)** "Formic acid driven rapid and green anti-Markovnikov hydrothiolation of styrenes" *ACS Omega* **2019**, 4, 12, 15101-15106.
- ❖ Manoj Jangra, Manpreet Kaur, Rushikesh Tambat, Rohit Rana, **Sushil K. Maurya**, Neeraj Khatri, Abdul Gafur and Hemraj Nandanwar* (2019) "Tridecaptin M, a new variant discovered in mud bacterium shows

- activity against colistin- and extremely drug-resistant Enterobacteriaceae" *Antimicrobial Agents and Chemotherapy*, 63 (6) e00338-19. **DOI:** 10.1128/AAC.00338-19.
- ❖ Simmi Sharma, Onkar S. Nayal, Arti Sharma, Rohit Rana and **Sushil K. Maurya*** (2019) "Tin(II) triflate catalysed synthesis of 3-Methyleneisoindolin-1-ones" *ChemistrySelect* 4, 1985-1988.
- ❖ Onkar S. Nayal, Maheshwar S. Thakur, Rohit Rana, Rahul Upadhyay, and **Sushil K. Maurya*** (2019) "Lewis's acid catalyzed direct nucleophilic substitution reaction of alcohols for the functionalization of aromatic amines" *ChemistrySelect*, 4, 1371-1374.
- ❖ Maheshwar S. Thakur, Onkar S. Nayal, Rohit Rana, Arti Sharma, Neeraj Kumar and Sushil K. Maurya* (2018) "An Efficient Metal-Free Mono N-Alkylation of Anilines via Reductive Amination using Hydrosilanes" *Eur. J. Org. Chem.*, 6729-6732.
- ❖ Maheshwar S. Thakur, Onkar S. Nayal, Rahul Upadhyay, Neeraj Kumar and Sushil K. Maurya* (2018) "2-Aminoquinazolin-4(3H)-one as an organocatalyst for the synthesis of tertiary amines" Org. Lett. 20, 1359-1362.
- ❖ Onkar S. Nayal, Maheshwar S. Thakur, Manoranjan Kumar, Shaifali, Rahul Upadhyay and **Sushil K. Maurya*** (2018) "Sustainable and efficient CuI-NPs-Catalyzed cross-coupling approach for the synthesis of tertiary-3-aminopropenoates, triazoles and ciprofloxacin" *Asian J. Org. Chem.* 7, 776-780.
- ❖ Maheshwar S. Thakur, Onkar S. Nayal, Rohit Rana, Manoranjan Kumar, Sushila Sharma, Neeraj Kumar and Sushil K. Maurya* (2018) "Unravelling 2-aminoquinazolin-4(3H)-one as an organocatalyst for the chemoselective reduction of nitroarenes" *New Journal of Chemistry* 42 ,1373 1378.
- ❖ "Ligand-free iron(II)-catalyzed N-alkylation of hindered secondary arylamines with non-activated secondary and primary alcohols *via* a carbocationic pathway" O. S. Nayal, M. S. Thakur, M. Kumar, N. Kumar, **Sushil K. Maurya***, *Adv. Synth. Catal.* 360 (2018),730-737.
- ❖ Sushil K. Maurya*, Rohit Rana (2017) "An eco-compatible strategy for the diversity-oriented synthesis of macrocycles exploiting carbohydrate-derived building blocks". *Beilstein J. Org. Chem.* 13, 1106-1118.
- ❖ Sushil K. Maurya* (2017) "Synthetic Studies Towards the Crassifoside F: Synthesis of Oxygen-Rich Bicyclic Core" *Asian J. Org. Chem.* 6(2) 224-234.
- ❖ Sushil K. Maurya, Mark Dow, Stuart Warriner and Adam Nelson* (2013), "Synthesis of skeletally-diverse alkaloid-like molecules: Exploitation of metathesis substrates assembled from triplets of building blocks" *Beilstein J. Org. Chem.* 9, 775–785.
- ❖ Sarah Murrison, **Sushil K. Maurya**, Christian Einzinger, Ben McKeever-Abbas, Stuart Warriner and Adam Nelson* (**2011**) "Synthesis of Skeletally-Diverse Alkaloid-like Small Molecules ", *Eur. J. Org. Chem.* 2354–2359.
- ❖ Lisa Sharling, Xiaoping Liu, Deviprasad R. Gollapalli, **Sushil K. Maurya**, Lizbeth Hedstrom and Boris Striepen*, (**2010**) "A screening pipeline for antiparasitic agents targeting *Cryptosporidium* inosine monophosphate dehydrogenase" *PLoS Neglected Tropical Diseases* 4 (8), e794.
- ❖ Sushil K. Maurya, Deviprasad R. Gollapalli, Shivapriya Kirubakaran, Minjia Zhang, Corey R. Johnson, Nicole K. Benjamin, Lizbeth Hedstrom and Gregory D. Cuny,* (2009) "Triazole Inhibitors of *Cryptosporidium parvum* Inosine 5'-Monophosphate Dehydrogenase" *J. Med. Chem.* 52 (2009) 4623-4630.
- ❖ Sushil K. Maurya and Srinivas Hotha*, (2006) "Synthesis of spiroannulated dihydroisobenzofuranylated

- monosaccharides" Tetrahedron Lett. 47, 3307-3310.
- ❖ Srinivas Hotha*, **Sushil K. Maurya** and Mukund K. Gurjar, (2005) "Stereoselective synthesis of spiroannulated cyclopentenones by the Pauson–Khand reaction on carbohydrate derived enynes" *Tetrahedron Lett.* 46, 5329-5332.
- ❖ Sushil K. Maurya, Pratap Patil, Shubhangi B. Umbarkar, Mukund K. Gurjar, Mohan Dongare*, Stephan Rudiger, Erhard Kemnitz, (2005) "Vapor phase oxidation of 4-fluorotoluene over vanadia−titania catalyst" *J. Mol. Catal. A: Chemical* 234, 51–57.
- ❖ Sushil K. Maurya, M. K. Gurjar, K. M. Malshe, P. T. Patil, M. K. Dongare* and Erhard Kemnitz, (2003) "Solid acid catalysts for fluorotoluene nitration using nitric acid" *Green Chemistry*, 5, 720–723.

Patents: (Granted/Filed)

- ❖ "1,6- DIAZABICYCLO [3,2,1] OCTAN- 7- ONE DERIVATIVES AND THEIR USE IN THE TREATMENT OF BACTERIAL INFECTIONS" Kale, Amol; Dond, Bharat; Dekhane, Deepak; Loganathan, V; Patel, Mahesh Vithalbhai; Pawar, Mangesh; Shaikh, Mohammad; Patel, Piyush; Dixit, Prasad; Tadiparthi, Ravikumar; Bhagwat, Sachin; Birajdar, Satish; Maurya, Sushil Kumar; Patil, Vijaykumar Jagdishwar; EP 2961751 B1.
- * "Compounds and methods for Treating Mammalian Gastrointestinal Microbial Infections" Hedstrom, Lizbeth, K.; Cuny, Gregory, D.; Gollapalli, Deviprasad, R.; Kirubakaran, Sivapriya; Maurya, Sushil K.; Striepen, Boris; Gorla, Suresh K.; Johnson, Corey R.; Kavitha, Mandapati; Khan, Jihan; US 10,125,116 B1.
- * "1,6- diazabicyclo [3,2,1] octan- 7- one derivatives and their use in the treatment of bacterial infections" Kale, Amol; Dond, Bharat; Dekhane, Deepak; Loganathan, V; Patel, Mahesh Vithalbhai; Pawar, Mangesh; Shaikh, Mohammad; Patel, Piyush; Dixit, Prasad; Tadiparthi, Ravikumar; Bhagwat, Sachin; Birajdar, Satish; Maurya, Sushil Kumar; Patil, Vijaykumar Jagdishwar; US 9732081 B2.
- ❖ "N-(ALKANOYL)-7-OXO-6-SULFOOXY-1,6-DIAZABICYCLO[3.2.1]OCTANE-2-CARBONYL HYDRAZIDE DERIVATIVE AND THEIR USE AS ANTIBACTERIAL AGENTS. Patil, V. J.; Maurya, Sushil K., Patel, P. A.; Bhuniya, R.; Zaki Ahmad, B. M.; Patel, M. V. WO002017216764.
- ❖ "Difluoro-(2-Substituted Carbamoyl-1,6-Diaza-Bicyclo [3.2.1] Oct-6-Yloxy) Acetic Acid Compounds and Their Use in Treatment of Bacterial Infections" Vijay J Patil, Sushil Kumar Maurya, Bharat Dond, V. Loganathan, Deepak Dekhane, Dixit, Prasad; Joshi, Prashant; Takalkar, Swapna; Mahesh Patel; WO 002017060826.
- * "Azetidinone containing compounds and their use in treatment of bacterial infections" Patil, Vijaykumar Jagdishwar; Maurya, Sushil Kumar; Patel, Mahesh Vithalbhai; WO002016128867.
- ❖ "Nitrogen containing bicyclic compounds and their use in treatment of bacterial infections" Patil, V. J.; Maurya, Sushil K., Patel, P. A.; Bhuniya, R.; Zaki Ahmad, B. M.; Patel, M. V. IN/2016/21020850 Submitted 17/06/2016.
- ❖ "Insecticidal Properties of Sapium sebiferum for the Control of Insect Pests" S G Eswara Reddy, S. K. Dolma and Sushil K. Maurya *Submitted to CSIR-IHBT Patent Unit* 26th March 2019.
- ❖ "A process for the preparation of carboxylic acids from Olefins" **Sushil K Maurya**, Rahul Upadhyay, Aakriti Sood, Rohit Rana, Rahul Kumar **Ref. 202011048467.**

❖ "Process for the preparation of pharmaceutically active compounds or intermediates thereof via selective nitro reduction reactions over vanadium oxide catalyst" **Sushil K. Maurya**, Rahul Upadhyay, Shashi Kumar **Ref. 202111045079**.

Invited talks, presentations and conference papers

- ➤ Rohit Rana, **Sushil K. Maurya***, Contemporary Facets in Organic Synthesis 2017 (CFOS-2017) IIT Roorkee, 22nd-24th Dec 2017 (Poster).
- ➤ Rahul Upadhyay, Onkar S. Nayal, **Sushil K. Maurya***, Contemporary Facets in Organic Synthesis 2017 (CFOS-2017) IIT Roorkee, 22nd-24th Dec 2017 (Poster).
- ➤ Rohit Rana, Rahul Upadhyay, **Sushil K. Maurya***, Current Trends in Drug Discovery Research 2019 CSIR-CDRI, 20- 23rd Feb 2019 (Poster).
- ➤ MS Thakur, O S Nayal, Rahul Upadhyay, Neeraj Kumar, **Sushil K. Maurya***, Current Trends in Drug Discovery Research 2019 CSIR-CDRI, 20- 23rd Feb 2019 (Poster).
- Arti Sharma, MS Thakur, **Sushil K. Maurya***, Current Trends in Drug Discovery Research 2019 CSIR-CDRI, 20- 23rd Feb 2019 (Poster).
- ➤ Sushil K. Maurya*, 25th ISCB, International Conference (ISCBC-2019), Lucknow 12th-14th Jan. 2019 (Invited Talk).
- Sushil K. Maurya*, 26th ISCB International Conference 9ISCBC NIPiCON 2020), Ahmadabad, 22-24th Jan 2020 (Invited Talk).
- Aakriti Sood, Rahul Upadhyay, Rohit Rana, **Sushil K. Maurya***, 26th ISCB International Conference 9ISCBC NIPiCON 2020), Ahmadabad, 22-24th Jan 2020 (Poster).
- Amita Kumari, **Sushil K. Maurya***, Ashu Gulati*, 26th ISCB International Conference 9ISCBC NIPiCON 2020), Ahmadabad, 22-24th Jan 2020 (Poster).
- Sushil K. Maurya*, International Conference on Smart Materials for Sustainable Technology (SMST-2020) 22-25th Feb 2020 (Invited Talk).
- Arti Sharma, **Sushil K. Maurya***, International Conference on Smart Materials for Sustainable Technology (SMST-2020) 22-25th Feb 2020 (Poster).
- ➤ Rohit Rana, **Sushil K. Maurya***, International Conference on Smart Materials for Sustainable Technology (SMST-2020) 22-25th Feb 2020 (Poster).
- ➤ Rahul Upadhyay, and **Sushil K. Maurya***, Student seminar series 2021 organized by CSIR IHBT, Palampur, 5th September 2021 (Poster).
- ➤ Shreya, Rohita Rana, Rahul Upadhyay, **Sushil K. Maurya***, CRSI-NSC-28, IIT Guwahati, 25-27th March 2022 (Poster).
- ➤ Shashi Kumar, Rahul Kumar, **Sushil K. Maurya***, CRSI-NSC-28, IIT Guwahati, 25-27th March 2022 (Poster).
- Rahul Kumar, Rahul Upadhyay, **Sushil K. Maurya***, CRSI-NSC-28, IIT Guwahati, 25-27th March 2022 (Poster).

Research Group Member

Current Group Member:

Rahul Kumar, SRF, Ph. D Student (Ph. D. Thesis submitted on 29/03/2023)

Past Group Member:

Post-Doc/RA

Dr. Simmi Sharma, National Post-Doctoral Fellow [Current: Post-Doctoral Fellow, Krembil Research Institute, University of Toronto, Canada]

Dr. Maheswar S. Thakur, Research Associate

Dr. Avanish Kumar, Research Associate

Dr. Sahil Mishra, Research Associate

Ph. D Awarded

Dr. Onkar S. Nayal, (Awarded Feb. 2018) [Current: University of Ottawa, Canada, Post-Doctoral Fellowship]

Dr. Maheswar S. Thakur, (Awarded Oct. 2018) [Current: Assistant Professor, St. Bide College, HPU, Shimla]

Dr. Rohit Rana, (Awarded Dec. 2021) [Current: Post-Doctoral Fellowship, Brandeis University, USA]

Dr. Amita Sharma, (Awarded March 2022) [Current: Post-Doctoral Fellowship, Emory University, USA]

Dr. Rahul Upadhyay, (Awarded July 2022) [Current: Post-Doctoral Fellow, Krembil Research Institute, University of Toronto, Canada]

Other Member

- (1) Arti Sharma, DST INSPIRE SRF, [Current: Ph. D Student at University of Freiburg, Germany]
- (2) Kajal Kaliya, SRF, Ph. D Student
- (3) Mahender Kumar, JRF, Ph. D Student
- (4) Aakriti Sood, Project Fellow
- (5) Shashi Kumar, Project Fellow
- (6) Yashpal, Project Fellow
- (7) Rahat Khan, Project Fellow
- (8) Shreya, Project Fellow
- (9) Deepak Dabur, Project Fellow
- (10) Deepak Singh, Project Fellow
- (11) Ashish Kumar, Project Fellow
- (12) Avantika Bhardwaj, Project Fellow

Trainees

- (1)Ms. Garima Govil, M. Sc. Trainee, Dr. B.R.A. NIT, Jalandhar. (May 2015-July 2015)
- (2) Ms. Akansha Sharma, M. Sc. Trainee, Dr. B.R.A. NIT, Jalandhar. (May 2015-July 2015)
- (3)Mr. Bhaskarjyoti Sarma, B. S. Trainee, Gauhati University, Guwahati. (Jan 2016-June 2016)
- (4)Mr. Ujjwal Jyoti Goswami, B. S. Trainee, Gauhati University, Guwahati. (Jan 2016-June 2016)
- (5)Ms. Diksha Dogra, M. Sc. Trainee, AMITY University, Gurgoan. (Jan 2017- June 2017)
- (6) Ms. Ayushi Sharma, M. Tech. Trainee, P. U. Chandigarh. (Jan 2017- June 2017)
- (7)Mr. Deepak Dabur, M. Sc. Trainee, Amity University, Gurgoan. (May 2017- July 2017)
- (8) Mr. Devender Singh Aswal, M. Sc. Trainee, Amity University, Gurgoan. (May 2017- July 2017)
- (9) Mr. Alankrit Dhiman, M. Sc. Trainee, Rayat Bahra University, Mohali. (May 2017- July 2017)
- (10) Ms. Ruchika Verma, M. Sc. Trainee, Rayat Bahra University, Mohali. (May 2017- July 2017)
- (11) Mr. Devender Singh Aswal, M. Sc. Trainee, Amity University, Gurgoan. (March 2018- April 2018)
- (12) Ms. Anjana Ghosh, M. Sc. Trainee, Amity University, Gurgoan. (March 2018- April 2018)
- (13) Ms. Komal, M. Sc. Trainee, Amity University, Gurgoan. (Feb 2018- April 2018)
- (14) Mr. Harniz Kumar, M. Sc. Trainee, Chandigarh University, Mohali (PB). (May 2018- June 2018)
- (15) Mr. Sangam Sharma, M.Sc. Trainee, Chandigarh University, Mohali (PB). (May 2019-June 2019)
- (16) Ms. Sakshi Sharma, M.Sc. Trainee, DAV University, Jalandhar, Punjab (July 2021- Sep. 2021)