



PATNA WOMEN'S COLLEGE

Autonomous
PATNA UNIVERSITY

3rd Cycle NAAC Accredited at A Grade with CGPA 3.58/4
'College with Potential for Excellence'(CPE) status accorded by UGC
Avila Convent, Bailey Road, Patna-800001, Bihar



Department of Biotechnology
Ministry of Science & Technology,
Government of India

Final Completion Report for the year 26.02.2018- 25.02.2021

- Name of the College : PATNA WOMEN'S COLLEGE, Autonomous
- Name of Coordinator, designation, Address, Phone nos. : Dr. Aprajita Krishna
Coordinator, Star College Scheme,
Head, Dept. of Physics
Dean, National, International
Collaborations and Consultancy
Patna Women's College
Bailey Road, Patna, 800001
Ph.No. 9431632519
E-mail: krishna.aprajita@gmail.com
- Assessment Duration : 2020-2021, 2019 – 2020, 2018 – 2019
(Annexure I)
- Duration in Years : Three years (from 26.2.2018 to 25.2.2021)
- Details of Departments Supported:

Sl. No.	Name of Department	Courses (B.Sc./M.Sc./PG Diploma, certificate etc) offered	Regular Faculty members	
			Total =	
			With Ph.D.	Without Ph.D.
1.	Physics	<ul style="list-style-type: none"> B.Sc Physics Honours (3year course) M.Sc. Physics (2year course) 	6	1 - Pursuing Ph.D
			Total = 7	
2.	Chemistry	<ul style="list-style-type: none"> B.Sc Chemistry Honours (3year course) 	5	1 - Pursuing Ph.D
			Total = 6	
3.	Zoology	<ul style="list-style-type: none"> B.Sc. Zoology Honours (3year course) M.Sc. Zoology (2year course) 	6	2 - Pursuing Ph.D
			Total = 8	
4.	Botany	<ul style="list-style-type: none"> B.Sc. Botany Honours 	5	1 - Pursuing Ph.D
			Total = 6	

M. Rashmi
Principal
Patna Women's College
Autonomous
Patna University
Bailey Road, Patna - 1

Aprajita Krishna
Coordinator
Star College Scheme
Patna Women's College
Bailey Road, Patna-1

5.	Computer Science	<ul style="list-style-type: none"> • B.Sc. (Hons) in Computer Applications (3 year course) • Post Graduate Diploma in Computer Applications (1 year course) • Credit based Add – on Certificate Course in Computer Literacy Programme (College Level) • Credit based Add – on Certificate Course in Web Designing (College Level) • Credit based Add-on Certificate Course in Financial Accounting (Tally) (College Level) 	8 -Pursuing Ph.D.	
			Total = 8	
6.	Microbiology	• B.Sc. Hons Microbiology (3 year course)	6	
			Total = 6	

1. Objectives

Star college scheme was implemented with an objective of broadening the horizons of teaching-learning process in the faculty of science at Patna Women's College by:-

- Enhancing the infrastructure of the departments through better lab facilities and enriched departmental libraries.
- Encouraging more number of students to opt for science by creating an interest through application oriented teaching methodology.
- Strengthening the core competencies of science teachers by providing them opportunity of advanced learning by participation in different faculty development programs, seminars etc.
- Inculcating research culture among teachers and students by providing exposure to latest tools and technologies in their respective fields. Implementation of Research Project Presentation.
- Promoting collaborative learning and making optimum use of available knowledge and resources within the region through networking amongst Institutions.
- Field Visits, Industrial Visit and exposure to state of art facilities.

2. Number & Date of Advisory committee meeting: Not Held. Request has been sent.

Due to unavoidable circumstances a date for Advisory Committee meeting could not be fixed.

3. Qualitative improvements due to DBT support.

DBT Star grant strengthened our College in various ways. It has not only provided financial support but strengthened the bonding between teachers and students as they work in unison for different specialized events.

M. Rashmi
Principal 25/6/21
Patna Women's College
Autonomous
Patna University
Bailey Road, Patna - 1

Apriyita Krishna
Coordinator 25/6/21
Star College Scheme
Patna Women's College
Bailey Road, Patna-1

Infrastructure

Lab is much upgraded now with new multiple equipments so that students now can work in smaller groups. Inter departmental activities increased the collaborative learning. Enhancement of Lab facilities and upgrading experiments provided beneficial knowledge to the undergraduate students. The students got exposure towards the practical applications of scientific principles through these innovative practical's. Having multiple copies of instruments has helped students to perform experiments individually. In the last three years new advanced equipment's have been purchased by the DBT grant, which has improved the infrastructure of the departmental laboratory

Interdisciplinary events

Interdisciplinary events organized throughout the year developed a sense of competition and enhancement of individual personality. The collaborative events have inculcated teamwork and coordination amongst the students and the departments. It has increased the interaction of teaching, non- teaching and students creating a consortia for academic progress. It has increased the knowledge of other subjects and created interest in the students to learn something new.

Students are able to participate in several activities conducted under DBT Scheme such as Hands on training through workshops, industrial visits etc. Departments have organized guest lectures, seminars and webinars with DBT support providing learning opportunities to students beyond their class rooms. Increased training programs on new technologies have enhanced the learning horizons. Analytical and critical thinking has developed scientific temperament among students. They have been able to visit the archaeological site and botanical garden for green auditing regularly. Exposure trip have helped them to broaden their practical knowledge on large scale.

Research Project

- The research work at undergraduate level created interest for further higher studies. More research activities undertaken with the help of this scheme. Many new types of equipment in multiples have been bought from the DBT grant which has helped the students to undertake many innovative research projects. Students undertake research projects. This helped them to make themselves ready to pursue higher studies and jobs. The students are able to undertake short term research in accordance with their interest especially in Basic sciences. It has enhanced the research aptitude of students
- Enhancement of hands-on-learning. Students are coming up with innovative ideas of developing smart gadgets after the training programmes of Robotics.
- It has increased the interaction of teaching, non-teaching and students creating consortia for academic progress. Exposure trip have helped students to broaden their practical knowledge on large scale
- This scheme provides teachers and students with more opportunity to attend seminar and conferences & training programs which imparts research knowledge to teachers.
- The departmental library is now enriched with new books of Indian and Foreign authors.

M. R. Anand
Principal 25/6/21
Patna Women's College
Autonomous
Patna University
Bailey Road, Patna - 1

Apurita Krishna
Coordinator 25/6/21
Star College Scheme
Patna Women's College
Bailey Road, Patna-1

IT Training

- During the Covid situation, the students were provided online Robotic Training in which they were taught simulation using TinkerCad. As an outcome, they prepared Robotic projects:
 - (i) Automatic Sanitizer Dispenser.
 - (ii) Door automation system for touch free operation.
 - (iii) Alert card for Social distancing.
 - (iv) Automatic Cleaning Robot for Covid Hospitals.

Any Novel aspect introduced or planning to introduce during the Scheme duration.

- Practical Training Programs on Applications of Artificial Intelligence (AI) and Internet of Things (IoT).
- Online Training Programmes.
- Webinar and Conferences ongoing.
- Specialised training has been imparted like
 - ❖ Aircraft maintenance
 - ❖ Hydroponics
 - ❖ Mushroom Culture
 - ❖ Vermi Composting
 - ❖ Pisciculture.
 - ❖ Apiculture
 - ❖ Non-invasive technique of material analysis
 - ❖ Robotics
 - ❖ 3D Printing
 - ❖ Biophysics
- Skill enhancement sessions were conducted for students in which they were demonstrated Transformers and Electric supply in the Campus. Electricity Transmission Generation was also explained. Hands on training on connections of Fuse and MCB were provided to students
- Students got their communication skills improved, by orientation programs in Soft skills .If this scheme continues, more and more programs for overall personality development of the students will be the prime focus.
- Planning to introduce Green Chemistry for different chemical syntheses which have broad applicability.
- Webinars and Conferences are being organized and many others are in pipeline
- Planning to introduce Online Training Programme for students.

M. Ranjana
Principal 25/6/21
Patna Women's College
Autonomous
Patna University
Bailey Road, Patna - 1

Adhira 25/6/21
Coordinator
Star College Scheme
Patna Women's College
Bailey Road, Patna-1

- To study the various beneficial properties, Preliminary screening, assessing and analyzing different phytochemicals present in the plant and various plant products have been introduced during the scheme duration.
- The department plans to send students for summer training internship programme to Tissue Culture Centre and major Labs in India.
- A tie-up with a local NGO Mishra Social Skills, Patna working for slum children and women, where the Department of Computer Science henceforth will conduct multifarious outreach activities regularly for the beneficiaries.
- Online training courses NPTEL, SWAYAM were attended by the faculty members.
- Online activities were conducted by the department like quiz competition etc.

4. Lessons learnt / difficulties faced/suggestions if any, in implementation of the programme and utilization of DBT grant. (Max 3 points within 300 words).

- i. Late release of fund hinders in the implementation of project. High cost of chemicals / instruments / training programme is a hindrance for conducting various experiments/training programmes.
- ii. Increased work load on teachers, paucity of time to complete the syllabus, sometimes delays the implementation of scheme. Scarcity of quality training Institute for advanced technology in the state is also a constraint.
- iii. In the financial year 2020-2021, due to prolonged lockdown many training programmes for the students have been delayed, the numbers of hands on experiments / programmes conducted were less because of the constraint of online platforms.

We have taken care of having online /offline training programs, Webinars, guest lectures and other programme keeping COVID directions in mind.

5. Key performance indicators

S. No.	Indicator	Pre-support (2016-2017)								During/AfterSupport(2018-2019)								Remarks
1	No.ofstudents admitted	Total=								Total=								
		M= NA				F=336				M=NA				F=356				
		SC	ST	OBC	G	SC	ST	OBC	G	SC	ST	OBC	G	SC	ST	OBC	G	
						18	02	48	268					21	04	51	280	
2	No.ofstudentspassin gout(%)StudentsAd mitted/passingout(p ass%)	90 %								92%								
3	Drop-outrates	10 %								8%								
4	No.ofstudentsopting forMSc	50%								52%								
5	Averagemarks	Maximum First Division								Maximum First Division								

M. Ranjani
Principal 25/6/21
Patna Women's College
Autonomous
Patna University
Bailey Road, Patna - 1

Adina
25-6-21
Coordinator
Star College Scheme
Patna Women's College
Bailey Road, Patna-1

S.no	Indicator	Pre-support (2016-2017)								During/AfterSupport(2020-2021)								Remarks
1	No.ofstudents admitted	Total=336								Total=348								
		M=NA				F=336				M=NA				F=348				
		SC	ST	OBC	G	SC	ST	OBC	G	SC	ST	OBC	G	SC	ST	OBC	G	
						18	2	48	268					20	11	137	180	
2	No.ofstudentspassingout(%)StudentsAdmitted/passingout(pass%)	90%								94%								
3	Drop-outrates	10%								5%								
4	No.ofstudentsopting forMSc	50%								54%								
5	Averagemarks	Maximum First Division								Maximum First Division								

6. No. of HANDS-ON EXPERIMENTS and NEW EXPERIMENTS being Conducted :

Department of Physics - 17

- i. Synthesis and characterization of nanoparticles
- ii. Study of Archaeological artifacts using non invasive technique
- iii. Programming on Arduino, simulation using TinkerCad and Realization in form of projects
- iv. Programming using Mathematica and Calculation of Tricritical point in Ising Models
- v. Experiment using Flywheel
- vi. To determine the moment of inertia by falling objects
- vii. To obtain the output when different input signals are given.
- viii. OPAMP based experiments:
 - ix. To study the Operational amplifier (IC741) in different configurations.
 - x. Measurement of critical angle and study of total internal reflection in a glass piece using He-Ne Laser.
 - xi. Verification of truth table of Flip Flops.
 - xii. To Determine charge density and type of charge carrier in a semiconductor by Hall effect method.
- xiii. Sensor based device development.
- xiv. Study of Lissajous figure by CRO
- xv. Study of two stage R-C Coupled Amplifier.
- xvi. Skill Enhancement Presentation on Electricity and Magnetism
- xvii. Skill Enhancement presentation on Optics

M. R. Ashwin
Principal 25/6/21
Patna Women's College
Autonomous
Patna University
Bailey Road, Patna - 1

Ashna
Coordinator 25-6-21
Star College Scheme
Patna Women's College
Bailey Road, Patna-1

Department of Chemistry - 19

- i. Determination of calories and nutrients contents in different varieties of sprouts.
- ii. Determination of heavy metal in different sample of water.
- iii. Preparation of biodiesel from fresh and waste vegetable oil
- iv. Determination of lead and cadmium in henna
- v. Smoke absorber and generation of electricity from CO_2
- vi. Separation of amino acid by chromatographic technique
- vii. Determine the strength of given acetic acid solution conductometrically by titrating against a standard solution of hydroxide.
- viii. Determine the strength of given ferrous ammonium sulphate solution potentiometrically by titrating against by KMnO_4 .
- ix. Determination of pH of soil and water by pH-meter.
- x. Verification of Beer Lambert Law by Colorimeter.
- xi. Determination of melting point of pure and mixed substance by Digital Melting point Apparatus.
- xii. Determination of Turbidity and heavy metals of different water samples of Patna region by Turbidity Meter.
- xiii. Verification of Titration Curve of strong acid vs strong base by Digital Conductivity meter.
- xiv. To determine the composition of mixture of acetic acid and HCL by conductometric titrations.
- xv. To determine the composition of mixture of NH_4OH and NaOH by conductometric titrations.
- xvi. Analysis of FTIR and UV – Vis spectra of some organic compounds.
- xvii. Smoke absorber and generation of electricity from CO_2 .
- xviii. Extraction of essential oil from plants.
- xix. Determination of caffeine contents in beverages.

Department of Zoology - 10

- i. To estimate the haemoglobin level in the human blood through haemoglobin meter
- ii. To estimate the level of Fluoride ions in Water samples
- iii. To estimate the level of Fluoride ions in Urine samples
- iv. To test the level of Nitrogen, Potassium and Phosphate in vermicompost
- v. Isolation and Identification of microorganism.
- vi. Estimation of Calcium by Titrimetry.
- vii. Estimation of Lactose in Milk.
- viii. ABO Blood Group
- ix. Bioaccumulation of heavy metals in indigenous species from river Ganga, Patna
- x. Identification of Arsenic in ground water

M. Rashmi K.
Principal 25/6/21
Patna Women's College
Autonomous
Patna University
Bailey Road, Patna - 1

Asha
25/6/21
Coordinator
Star College Scheme
Patna Women's College
Bailey Road, Patna-1


Department of Botany - 11


- i. UV-VIS Spectroscopic screening of major phytochemicals of medicinal and economic interest from different plants.
- ii. Cultivation of mushroom in an aquaponic system.
- iii. DNA extraction technique. Preliminary screening of the phytoconstituents.
- iv. **Detection of phytochemicals in plant products**
 - a. Phenol
 - b. Tannin
 - c. Flavonoid
 - d. Starch
 - e. Protein
 - f. Lipid
- v. **Estimation of phytochemicals in plant products:**
 - a. Sugar
 - b. Protein
 - c. Organic acid
 - d. Fatty oil
 - e. Squash Technique

Aim: Study of different stages of mitosis
- vi. Microbial assay
Aim: Study of different fungal spores
- vii. Herbarium specimens
Aim: Study of diseases in plants.
- viii. Assay of enzymes in different plant samples.
- ix. Estimation of carotene in different varieties of Capsicum.
- x. Salt analysis of soil samples from different agricultural land near Patna.
- xi. Assessment of Iron Content in water samples.

Department of Computer Science - 21

- i. Identification of Bacteria Isolated from Computers BLAST for Beginners: An application of Computer to Genomes.
- ii. Hands on Training Basics of Robotics
- iii. Internet of Things (IoT)
- iv. Raspberry Pi
- v. Gesture Robotics


Principal 25/6/21
Patna Women's College
Autonomous
Patna University
Bailey Road, Patna - 1


25-6-21
Coordinator
Star College Scheme
Patna Women's College
Bailey Road, Patna-1

- vi. Wireless Robotics
- vii. Assembly and using different techniques of Drone
- viii. Arduino Programming
- ix. Moodle LMS Exploring New Horizons of Teaching Learning
- x. Computer Skills Training
- xi. Designing and Creating products using 3D Printing Technology.
- xii. Development of Sensor Based devices using Arduino Kit
- xiii. Analysis of Heavy Metals in E-Waste
- xiv. Demonstrations of Sensor based Smart gadgets. using sensors by Techprolabz,
- xv. Image Processing Using OpenCV.
 - a. Read, display and import image using OpenCV.
 - b. Deducing image information such as its shape, height, width and channels.
 - c. Converting RGB image to Gray Scale Image and Black and White image.
 - d. Resizing, cropping and restoring images
- xvi. Network Security: Encryption and Decryption Techniques using Java Programming.
- xvii. Introduction to TOR Browser
- xviii. Viewing and Managing Cookies.
- xix. Two Step Verification processes of different Social Sites for additional security.
- xx. Introduction to Virtual Private Network using Proton VPN.
- xxi. Introduction to Data Analysis using R Programming.

Department of IMB (Industrial Microbiology) - 16

- i. Hands-on-training on Artificial Transformation of Bacterial Cell
- ii. Workshop on Extraction of Antibiotic Resistant Plasmid
- iii. Visualization of different forms of extracted plasmid
- iv. Isolation of genomic DNA from Callus of the plant tissue
- v. Isolation of E. coli by enrichment culture technique from chicken and mutton
- vi. Callus production from rose plant
- vii. Shoot multiplication of Glycyrrhizaglabra
- viii. Separation of mixture of Amino acids by thin layer chromatography
- ix. Separation of mixture of amino acids by paper chromatography
- x. Isolation bacteria on CMC agar media
- xi. Calculation of Blood group frequency
- xii. Isolation of bacterial genetic material
 - a. Isolation of *E. coli* by enrichment culture technique from Indian currency
 - b. Isolation of bacteria from spoiled fruit of local market
 - c. Calculation of Blood group frequency

M. Rashmi
Principal 25/6/21
Patna Women's College
Autonomous
Patna University
Bailey Road, Patna - 1

9

Ashrafi
Coordinator 25-6-21
Star College Scheme
Patna Women's College
Bailey Road, Patna-1

- xiii. Genetic transformation of bacteria
- xiv. 18SrRNA sequencing and preparation of phylogenetic tree
- xv. Isolation of different forms of plasmid and its visualization
- xvi. Polyphasic characterization of phytopathogenic fungi.

7. Publications (scopus indexed) / patents, if any :-

Books / Chapters Published

- **Dr. Aprajita Krishna**
Book on Internet of Things and wireless sensor Networks published by Amazon.
- **Mr. Ajit Kumar Singh & Ms. Manisha Prasad,**
Book on Big Data: Simply in Depth published by Amazon, July 2020
- **Ms. Manisha Prasad & Ms. Amrita Prakash,**
Title of the Book: Excellence in Higher Education: Emerging Concerns and Road Ahead.,
Ch. Name: Effectiveness and Adaptation of E-learning in Higher Education., Effectiveness and Adaptation of E- learning in Higher Education., Sep 2020
- **Dr. Jaya Philip**
 1. Edited book on "New Horizons of Biological Sciences: Advantages and challenges".
Rajesh Publications, New Delhi-110002 in 2020.
 2. Isolation of cellulose degrading fungi from decaying agro-waste. Chapter: 7, Pg.: 62-67
- **Dr. Arti Kumari**
Isolation, growth and identification of *chlorpyrifos* degrading probiotic bacteria from agricultural soil. Chapter: 9, Pg.: 75-84.
- **Dr. Satyamvada Swayamprabha**
UV -Vis spectrophotometer and Fourier transformed infrared spectroscopic (FTIR) analysis of *Glycyrrhiza glabra* root extracts. Chapter: 8, Pg.: 68-74.
- **Ms. Amrita Prakash**
 1. Shree Vinayak Publication, Agra, Deliberations on Advances in Physical, Mathematical and Computational Sciences, Big Data: The next Frontier for Innovation and Productivity, December 2020, Chapter: 41
 2. Title of the Book: New Horizons of Biological Sciences: Advantages and Challenges
Book Chapter: Role of Plant Tissue Culture in Crop Improvement. Year: 2020
- **Ms. Renu Kumari**
Shree Vinayak Publication, Agra, Deliberations on Advances in Physical, Mathematical and Computational Sciences, A Comprehensive Survey of Data Mining Techniques on Time Series Data for Rainfall Prediction, December 2020, Chapter: 43

M. Rashmi
Principal 25/6/21
Patna Women's College
Autonomous
Patna University
Bailey Road, Patna - 1

Adhna 25-6-21
Coordinator
Star College Scheme
Patna Women's College
Bailey Road, Patna-1

Papers Presented

1. **Dr. Amrita** presented paper in a National Conference on "Contributions of Indian Scientists in different areas of Physics organized by PG Deptt. of Physics, Patna University on 15. 04.2018.and received First Prize in Oral presentation.
2. **Dr. Rohit Singh** presented paper in a National Conference on "Contributions of Indian Scientists in different areas of Physics organized by PG Deptt. of Physics, Patna University on 15.04.2018.
3. **Dr. Amrita** presented paper in Poster Presentation in a three day International Conference on Quantum and Atom Optics (ICQAO2018) organized by IIT Patna on 16th-18th Dec'2018.
4. **Ms. Nimisha Manan** presented paper in National Seminar on IT & Digital India: Importance & Prospects on the topic "The Internet of Things , A Big Changer" Organized by: Community College, Anoop Lal Yadav Mahavidyalaya, Triveniganj on 28.05.19
5. **Ms. Amrita Prakash** presented paper in Online International Conference on Advances in Physical, Mathematical & Computational Sciences on the topic "Big Data: The next Frontier for Innovation and Productivity" on 12.06.2020 organized by St. Aloysius College (Autonomous), Jabalpur, MP.
6. **Ms. Amrita Prakash** presented paper in International Webinar on "Post Pandemic Corporate Management" on the topic: "Cyber Security: Issues and Challenges" on 07.06.2020 organized by Chanakya National Law University and Magadh Mahila College, Patna.
7. **Ms. Manisha Prasad and Ms. Amrita Prakash** presented paper in Online International Conference on "Covid-19 Pandemic and World Tourism-Hospitality: Trends, Challenges and Future Prospects" on the topic "Effectiveness of Virtual Reality in Tourism"on 27.05.2020 organized by IQAC, Patna Womens College (Autonomous), Patna University
8. **Ms. Renu Kumari** presented paper in "POST-PANDEMIC CORPORATE MANAGEMENT" on the topic "Impact of COVID pandemic on World tourism Economic and Socio-cultural Aspects" on 7.6.2020 organized by Chanakya National Law University & Magadh Mahila College, Patna.
9. **Ms. Renu Kumari** presented paper in Online International Conference on Advances in Physical, Mathematical & Computational Sciences on the topic "A Comprehensive Survey of Data Mining Techniques on Time Series Data for Rainfall Prediction" on 12.06.2020 organized by St. Aloysius College (Autonomous), Jabalpur, MP.

M. Kashyap
Principal 25/6/21
Patna Women's College
Autonomous
Patna University
Bailey Road, Patna - 1

Ashma 25-6-21
Coordinator
Star College Scheme
Patna Women's College
Bailey Road, Patna-1

Papers Published

- **Ms. Anshu**

1. Research Paper on "Moving Digital Transformation of India Forward" in the Journal of Information and Computational Science, Volume 10 Issue 4 – 2020, ISSN: 1548-7741. UGC – Care Group – II Certified Journal. Web - www.joics.org / E-mail- submitjoics@gmail.com. International Level.
2. Research Paper on "Impact of COVID pandemic on World tourism – Economic and Socio-cultural Aspects" in DRSR Journal, ISSN : 2347 - 7180 / Volume 10 Issue 07 No. 20 Month July Year 2020 in DOGO Rangsang Research Journal. Web : www.drsrcjournal.com. UGC –Care Group – I Journal. National Level.

- **Ms Renu Kumari**

1. Research Paper on "Moving Digital Transformation of India Forward" in the Journal of Information and Computational Science, Volume 10 Issue 4 – 2020, ISSN: 1548-7741, UGC – Care Group – II Certified Journal. Web - www.joics.org / E-mail- submitjoics@gmail.com. International Level.
2. Research Paper on "Impact of COVID pandemic on World tourism – Economic and Socio-cultural Aspects" in DRSR Journal, ISSN : 2347 - 7180 / Volume 10 Issue 07 No. 20 Month July Year 2020 in DOGO Rangsang Research Journal. Web : www.drsrcjournal.com. UGC – Care Group – I Journal. National level.
3. Research Paper on "Study of E-Commerce and Social Media Analytics" in Alochanachakra Journal, ISO : 7021 - 2008 / Volume IX Issue VI June-2020 in AC Journal. Web : www.alochanachakra.in / E-Mail – submitacj@gmail.com . UGC –Care Group – I Journal. National level.


- **Ms. Amrita Prakash**

1. Published paper on Development of an Arduino-Based Embedded System in International Journal of Social Science Research Network (SSRN) dated: 19-07-2019
2. Published paper on Cyber Security: Issues and Challenges in International Journal of Advanced Research in Science, Communication and Technology IJARCT, Volume 10, Issue 2, ISSN No. 2581-9429

- **Pinky Prasad, Tanuja and Sheila Bedi (2020).** "Comparative Assessment of Endoglucanase Activity of Cellulolytic Bacterial Strains on Untreated and Pretreated Natural Cellulosic Wastes". *International Journal of Current Microbiology and Applied Sciences* 9(5): 1974 – 1987. International Level

- **Gaurav I, Singh T, Thakur A, Kumar G, Rathee P, Kumari P, Sweta K (2020).** "Synthesis, *in-vitro*, and *in-silico* evaluation of silver nanoparticles with root extract of *Withaniasomnifera* for antibacterial activity via binding of penicillin binding protein-4". *Current Pharmaceutical Biotechnology*. DOI: 10.2174/1389201021666200702152000. International Level


Principal 25/6/21
Patna Women's College
Autonomous
Patna University
Bailey Road, Patna - 1


Coordinator 25-6-21
Star College Scheme
Patna Women's College
Bailey Road, Patna-1

- Thakur A, Mishra AP, Panda B, Rodríguez DCS, Gaurav I, Majhi B (2020). Application of artificial intelligence in pharmaceutical and biomedical studies. *"Current Pharmaceutical Design"*. DOI: 10.2174/1381612826666200515131245". International Level
- **Dr. Jaya Philip**, (Microbiology), *Int.J.Curr.Microbiol.App.Sci.* 9(06): 3149-3157, 2020, "Effect of Fungi Isolated from Different Plastic Polluted Sites on Low Density Polyethylene Material Degradation with reference to SEM Analysis"
- **Ms. Arti Kumari** (Microbiology), *IJRAR*, E-ISSN2348-1269, P- ISSN 2349-5138, 2019, "In silico prediction of Glabridin potency against Human Tyrosinase in hyperpigmentation condition"
- **Ms. Arti Kumari** (Microbiology), *International Journal of Pharmaceutical Sciences and Drug Research Advance Research*, 2019, "Phytochemical Screening of root extracts of *Glycorrhizaglabra* by Spectroscopic methods (UV-Vis Spectrophotometer, FTIR and HPLC)"
- **Ms. Satyamvada Swayamprabha** (Microbiology), *National journal of Life Sciences*, 2019, "Potential of *B. cereus* (Accession No. KC172044.1) as a Probiotic degrader of chlorpyrifos".
- **Ms. Satyamvada Swayamprabha** (Microbiology), *International Journal of Current Research in Life Sciences*, 2019, "Efficiency of the Probiotic bacteria in degradation of the pesticide chlorpyrifos present in agricultural soil".
- **Dr. Preeti Swarupa** (Microbiology), *Journal of Pure and Applied Microbiology*, ISSN: 0973-7510 [vol-13(2): 1053-1061, 2019, "Characterization of pH Dependent Growth Response of Agriculturally Important Microbes for Development of Plant Growth Promoting Bacterial Consortium"
- **Dr. Preeti Swarupa** (Microbiology), *Journal of Pure and Applied Microbiology*, ISSN: 0973-7510 [vol-12(4), 2149-2157, 2019 "Impact of Chlorpyrifos on Plant Growth Promoting Rhizobacteria Isolated from *Abelmoschus esculentus*".
- **Dr. Aprajita Krishna** and **Devam Priya**, *BATAR: The Weather*, Issue 8, 2020, Pg no. 11-13, Noise: A Scientific Analysis as Environmental Pollutant.
- **Jyoti Chandra** and **Srinivasa Rao Manne**, *Org. Lett.* 2019, 21, 636-639 (Accepted).
- **Hena Naz, Naheed Ahmed and Piyush Kumar Rai** (2020). "Cytotoxicity of nanoparticles on the seedlings of the plants belonging to Fabaceae family" *Journal Of Advanced Scientific Research*; 11 (3): 189-196; ISSN 0976-9595, www.sciensaga.info .UGC care listed journal.
- **Pinky Prasad, Tanuja and Sheila Bedi** (2020). "Comparative Assessment of Endoglucanase Activity of Cellulolytic Bacterial Strains on Untreated and Pretreated Natural Cellulosic Wastes". *International Journal of Current Microbiology and Applied Sciences* 9(5): 1974 – 1987
- **Neha Sharma, kamni, Virendra .K.Singh, Sandeep kumar, Yonghoon Lee, Piyush Kumar Rai and Vivek . K. Singh** (2020). "Investigation of Molecular and Elemental changes in rice grains infected by false smut disease using FTIR" *Springle Journal of Applied Physics B. Lasers and Optics*, Volume 126:122 –, Impact factor 1.746, ISSN: 0946-2171 (Print),

1432-0649 (Web) , Indexed in Scopus and web of science, <http://doi.org/10.1007/s00340-020-07475-8> www.springer.com . International Level

- Neha Sharma, Virendra. K. Singh , Yonghoon Lee , Sandeep Kumar , **Piyush Kumar Rai**, Ashok .K. Pathak and Vivek . K. Singh (2020). “ Study of Molecular and Elemental changes in Nematode- infected Root in Papaya Plant using FTIR , LIBS and WDXRY Spectroscopy” *Journal of Atomic Spectroscopy*. Volume 41 Issue 03 year – , Impact Factor 1.292 , ISSN : 0195- 5373 (Print) , 2708- 521X (Online) , Indexed in scopus and web of science , DOI: 10.46770/As.202003.003 , www.at-spectrosc.com. International Level
- Neha Sharma , YogulKhajuria, Virendra.K.Singh , Sandeep kumar , Yonghoon Lee, **Piyush Kumar Rai**, Vivek. K. Singh (2020).“ Analysis of Mineral Elements in Medicinal Plant Samples using LIBS and ICP-OES” *Journal of Atomic Spectroscopy*. Volume 41 Issue 06 Impact factor 1.292 , ISSN : 0195- 5373 (Print) , 2708- 521X (Online) , Indexed in scopus and web of science, DOI: 10.46770/AS.2020.06.003 www.at-spectrosc.com. International Level
- **Gaurav I, Singh T, Thakur A, Kumar G, Rathee P, Kumari P, Sweta K (2020).** “Synthesis, *in- vitro*, and *in-silico* evaluation of silver nanoparticles with root extract of *Withaniasomnifera* for antibacterial activity via binding of penicillin binding protein-4”. *Current Pharmaceutical Biotechnology*. DOI: 10.2174/1389201021666200702152000. International Level
- **Thakur A, Mishra AP, Panda B, Rodríguez DCS, Gaurav I, Majhi B (2020).** Application of artificial intelligence in pharmaceutical and biomedical studies. “*Current Pharmaceutical Design*. DOI: 10.2174/1381612826666200515131245”. International Level
- **Ms. Deepa Sonal, Scopus Indexed Solid State Technology, Scopus Indexed Solid State Technology, An IoT-Based Model for Defending Against the Novel Coronavirus (COVID-19) Outbreak, 30.03.2020**
- **Ms. Deepa Sonal, International Journal of Computer Science and Engineering (IJCSE) , Quantum Computing: A possibility to find COVID-19 antidote, 30.05.2020**
- **Ms. Deepa Sonal, Materials Today: Proceedings (Elsevier), , Security Enhancement for IoT enabled Agriculture, December 2020**
- **Dr. Jaya Philip, Effect of fungi isolated from different plastic pollutant sites on low density polyethylene material degradation with reference to SEM analysis. Int. j of Current Microbio. & Appl. Sc., 2020, Vol.9(6), pp. 3149-3157**
- **Identification of Bacteria from under Finger Nails. INT. J of Sci. Res.in Sc. & Tech., 2020, vol.7(6), pp. 234-241.**
- **Dr. Preeti Swarupa, Characterization of amylolytic bacteria Bacillus subtilis LC4 isolated from Sita Kund hot springs of Bihar, India." Intl J Biotechnol Microbiol 7, 2(2), (2020): 09-14.**
- **Dr. Niti Yashvardhini, Occurrence of recurrent mutation in SARS-CoV-2 genome and its implication in the drug designing strategies. Journal of Pharmacy and Pharmacology Research 4 (2020): 96-102.**
Genome Organization and Pathogenesis of SARS-CoV-2. Int.J.Curr.Microbiol.App.Sci (2020) 9(9): 2153-2156
- **Dr. Swetnisha, In vitro production of capsaicin through plant tissue culture. Journal of Phytology.24-33. 10.25081/jp.2017.v9.3389.**


Principal 25/6/21
Patna Women's College
Autonomous
Patna University
Bailey Road, Patna - 1

14


Coordinator 25-6-21
Star College Scheme
Patna Women's College
Bailey Road, Patna-1

1. Assessment of Phytochemicals, Antioxidant and Free Radical Scavenging Potential of Aqueous Methanol Extract of Capsicum assamicum Jubilee Purkayastha & L. Singh (Bhut Jolokia) fruits. Int J Pharma Res Health Sci. 2018; 6 (1): 2148-53
2. Phytochemical Screening of root extracts of Glycyrrhiza glabra by Spectroscopic methods (UV-Vis Spectrophotometer, FTIR and HPLC). Vol. 11(6), 2019, pg. 376-381.
3. Antibacterial activity of Glycyrrhiza glabra root extracts against Staphylococcus species and Escherichia coli. Vol. 09(15), 2020, pg. 1069-1080.
4. Identification and prevention of microbial contamination in tissue culture of Catheranthus roseus. Vol. 30(2), 2020, pg. 297-305.
5. Biodegradation of Pesticide Chlorpyrifos by Bacteria Staphylococcus aureus (Accession no. CP023500.1). Vol 20(1&2), DOI: 10.18311/jeoh/2020/25042, 21-26, January-June 2020

7. Resource Person:

Dr. Aprajita Krishna

- Resource Person on "Effective Tools For Interdisciplinary Research & Scientific Presentation" Government Polytechnic Darbhanga on 08.09.2020
- Resource Person in UGC- HRDC "Refresher course in Physics" Department of Physics, Patna University on 23.01.2020

Ms. Manisha Prasad and Ms. Amrita Prakash

- Resource Person on "Moodle LMS: Exploring New Horizons of Teaching-Learning" Online Faculty Development Programme Organized by Department of MCA & Computer Science, Patna Women's College in association with Remote Learning through Spoken Tutorial, IIT.


8. Training received by Faculty:-


DEPARTMENT OF PHYSICS					
Sl. No.	Name of program	Date	Name of Faculty who attended	Topic	Venue
1.	Online Learning Workshop for Faculty	15.04.2020 -17.04.2020	Dr. Aprajita Krishna Dr. Rohit Singh Dr. Amrita	Learning Management system	Zoom Platform
2.	Effective and Efficient Online Teaching in the Age of Corona: A Hands on Workshop	23.05.2020	Dr. Rohit Singh Dr. Amrita	Bodhi Tree LMS	LMS
3.	NPTEL Course	8 weeks	Dr. Aprajita Krishna Dr. Rohit Singh	Architectural Conservation and Historic Preservation	Swayam
4.	ARPIT AICTE Course	16 weeks	Dr. Kavita Verma	Teachers and Teaching in Higher Education	Swayam

M. Shankari
25/6/21
Principal
Patna Women's College
Autonomous
Patna University
Bailey Road, Patna - 1

Amrita
25-6-21
Coordinator
Star College Scheme
Patna Women's College
Bailey Road, Patna-1

5.	NPTEL Course	12 weeks	Dr. Rohit Singh	Laser: Fundamentals and Applications	Swayam
6.	AICTE NPTEL FDP Course	12 weeks	Dr. Rohit Singh	Nuclear and Particle Physics	Swayam
7.	NPTEL Course	12 weeks	Dr. Rohit Singh Dr. Amrita	Solid State Physics	Swayam
8.	NPTEL Course	8 weeks	Dr. Rohit Singh Dr. Amrita	Physics through Computational Thinking	Swayam
9.	Coursera	6 weeks	Dr. Amrita	Physical Basis of Quantum Computing	Coursera
10.	AICTE NPTEL FDP Course	4 weeks	Dr. Amrita	Selection of Nanomaterials for Energy Harvesting and Storage Applications	Swayam
11.	DELNet	Phase 1 (16.04.202-26.04.2020) Phase 2 (30.4.2020-13.05.2020)	Riekshika Sanwari	TLC Mentorship Programme	Zoom
12.	FDP (Spoken tutorials)	22.5.2020-2.6.2020	Riekshika Sanwari Dr. Rohit Singh Dr. Amrita	Scilab	Zoom
13.	FDP (Spoken tutorials)	11.5.2020-17.5.2020	Riekshika Sanwari Dr. Rohit Singh	Latex and Xfig	Zoom
14.	FDP (Aztech Academy)	25.6.2020-09.07.2020	Riekshika Sanwari	Python Programming	Zoom
15.	AICTE NPTEL FDP Course	12 weeks	Dr. Amrita	Introduction to Classical Mechanics	Swayam
16.	One week Workshop		Dr. Kavita Verma	Research Methodology	Zoom
17.	FDP organized by IQAC in collaboration with the Department of Education, Patna Women's College, Autonomous, Patna University.	08.05.2020 & 09.05.2020	Dr. Aprajita Krishna	The Role of E-Learning during Lockdown : Academic Challenges and the Road Ahead	Zoom
18.	FDP organised by Department of MCA, Patna Women's College (Autonomous) Patna University	29.04.2020 & 30.04.2020	Dr. Aprajita Krishna	Effective Tools for Online Meeting and Teaching	Google Meet


 Principal 25/6/21
 Patna Women's College
 Autonomous
 Patna University
 Bailey Road, Patna - 1


 Coordinator 25-6-21
 Star College Scheme
 Patna Women's College
 Bailey Road, Patna-1

19.	FDP organised by St. Teresa's Institute of Education, Santacruz, Mumbai	06.06.2020 – 10.06.2020	Dr. Aprajita Krishna	Creating Tech- Savvy Teachers for future classrooms	Zoom
20.	NPTEL Course		Dr. Aprajita Krishna	Architectural conservation and Historic preservation	Swayam
21.	Digital Leadership Course, Part 1: Online Learning workshop for faculty.	15.04.2020-17.04.2020	Dr. Aprajita Krishna	QASPIR	
22.	FDP organised by IQAC, St. Joseph's College, Autonomous, Tiruchirappally	30.06.2020 – 04.07.2020	Dr. Aprajita Krishna	Inclusive Procedures And Processes in Assessment and Accreditation by NAAC	Zoom

DEPARTMENT OF CHEMISTRY

Sl. No.	Name of program	Date	Name of Faculty who attended	Topic	Venue
1.	Online Faculty Development Programme (FDP)	15.05.2020 – 21.05.2020.	Dr. Jyoti Chandra	"Moodle Learning Management System"	Zoom platform
2.	Faculty Development Programme	05.07.2019 - 06.07.2019	Dr. Jyoti Chandra	Standards of Excellence in Higher Education	PWC
3.	12 weeks Online Faculty Development Programme (FDP)	27.01.2020 - 17.04.2020.	Dr. Jyoti Chandra	"Essentials of Biomolecules Nucleic Acids and Peptides"	NPTEL, IIT Guwahati
4.	Online Faculty Development Programme(FDP)	21.09.2020 - 25.09.2020	Dr. Jyoti Chandra	Learning Management System	Institute of Technical Teachers Training and Research (NITTR)
5.	One week Online Faculty Development Programme (FDP) organized by IQAC, A.N. College, association with IIT Bombay	11.05.2020 - 17.05.2020	Dr. Jyoti Chandra	LaTex&Xfig	Zoom
6.	International Virtual Conference organized by Department of Chemistry, Annamalai University	27.08.2020 – 28.08.2020	Ms. Amita Prasad	"Surface Chemistry-SUCH 2020"	Zoom

M. Rashmi
Principal
Patna Women's College
Autonomous
Patna University
Bailey Road, Patna - 1

Ashna
Coordinator
Star College Scheme
Patna Women's College
Bailey Road, Patna-1

7.	National Workshop Organized by Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi	22.02.2021	Ms. Amita Prasad	ICT Tools for Chemistry Teachers	Zoom
DEPARTMENT OF BOTANY					
Sl. No.	Name of program	Date	Name of Faculty who attended	Topic	Venue
1.	Online Faculty Development Programme(FDP) NPTEL-AICTE, MHRD, Govt. of India	Jan-Feb, 2020.	Dr. Shilpi Kiran	Human Molecular Genetics	Swayam
2.	Online Workshop Organized by Dept. Of MCA, Patna Women's College	29.4.2020 – 30.04.2020	Dr. Pinky Prasad Dr. Urvashi Sinha Dr. Anjana Verma Dr. Piyush Kumar Rai	Effective tools for Online Meeting and Teaching	Google Meet
3.	Two week online workshop for Teaching and Non- Teaching Staff Organized by Ramanujan College, Delhi University in association with RCMOOCS University for Digital Education.	25.05.2020 – 05.06.2020	Dr. Anjana Verma	"From e-Learning to eTraining: A Comprehensive Guide for all your Administrative Work"	Zoom
4.	National level Workshop Organized by Wilson College , Mumbai	15.05.2020 – 16.05.2020	Dr. Piyush Kumar Rai	"Person with Disabilities In Higher Education: Inclusion & Employment".	Zoom
5.	Online Faculty Development Program Organized by Sridevi Women's Engineering College	22.05.2020 – 26.05.2020.	Dr. Piyush Kumar Rai	Artificial Intelligence	Zoom
6.	One Week Online FDP Organized by Department of MCA & Computer Science, Patna Women's	15.05.2020 – 21.05.2020.	Dr. Pinky Prasad Dr. Urvashi Sinha Dr. Anjana Verma Dr. Piyush Kumar Rai	Moodle LMS- <i>Exploring New Horizons of Teaching-Learning</i>	Zoom

M. Rashmi
Principal
Patna Women's College
Autonomous
Patna University
Bailey Road, Patna - 1

Ashra
Coordinator
Star College Scheme
Patna Women's College
Bailey Road, Patna-1

	College in association Spoken Tutorial, IIT, Mumbai		Dr. Shilpi Kiran Ms. HenaNaz		
7.	FDP Organized by Academic Governance Team, Avinash Group of Institutions, Hyderabad.	11.06.2020	Dr. Anjana Verma	Hone Your Skills"	Zoom
8.	National Workshop Organized by Xavier Board of Higher Education in India, Bangalore in collaboration with EPIGNOSIS (USA) – EDIFYERS (INDIA).	04.05.2020 – 05.05.2020	Dr. Pinky Prasad	Online Teaching-Learning-Evaluation	Zoom
9.	5 Day Online FDP Organized by IQAC, Patna Women's College, Patna	28.09.2020 – 3.10.2020.	Dr. Pinky Prasad Dr. Urvashi Sinha Dr. Anjana Verma Dr. Piyush Kumar Rai Dr. Shilpi Kiran Ms. HenaNaz	Curriculum Development for Outcome Based Education	Zoom
10.	Online National Workshop Organized by IQAC, Patna Women's College, St. Aloysius College, Autonomous, Jabalpur under the aegis of UGC PARAMARSH Scheme	29.05.2020 – 30.05.2020.	Dr. Pinky Prasad	NAAC Assessment & Accreditation: Preparation and Training	Zoom
11.	15 day FDP Organized by University of Delhi Miranda House and SarlaDevi Center, Bhubneshwar.	24.08.2020 – 07.09.2020	Dr. Urvashi Sinha	Gender contours of the pandemic : reinventing public policy and leadership transformation	Zoom
12.	FDP Organized by AICTE New Delhi	21.09.2020 – 25.09.2020	Dr. Pinky Prasad Dr. Urvashi Sinha Dr. Anjana Verma Dr. Shilpi Kiran Dr. Piyush Kumar Rai Ms. HenaNaz	Training and Learning Academy	Zoom
13.	E- Refresher Course on Organized by Department of Biotechnology, A.K.S University, Satna M.P.	3.09.2020 – 28.10.2020	Dr. Anjana Verma	21 st Century: The Era of Biotechnology to innovate by advance Biotechnology learning.	Zoom

M. Roshani
Principal 25/6/21
Patna Women's College
Autonomous
Patna University
Bailey Road, Patna - 1

Ashra
25-6-21
Coordinator
Star College Scheme
Patna Women's College
Bailey Road, Patna-1

14.	E- Refresher Course on Organized by Department of Biotechnology, A.K.S University Satna, M.P.	17.10.2020	Dr. Anjana Verma	21 st Century: Plant Tissue Culture- scope and learning	Zoom
DEPARTMENT OF COMPUTER SCIENCE					
Sl. No.	Name of program	Date	Name of Faculty who attended	Topic	Venue
1.	Online Workshop Organized by M.J.P. Rohilkhand University, Bareilly	08.06.2020 — 17.06.2020	Ms. Amrita Prakash Ms. Renu Kumari	Performing and Designing Experiments on Virtual Platform	Zoom
2.	FDP Organized by St. Thomas College of Teacher Education in collaboration with UGC - HRDC, University of Kerala	19.05.2020 — 25.05.2020	Ms. Amrita Prakash	Creative Adaptation - Reaching Out through Digital Classrooms	Zoom
3.	FDP Organized by Maharshi Markendeshwar Deemed University, Ambala	26.10.2020 — 31.10.2020	Mr. Ajit Kumar Singh	International Research Oriented Program	Zoom
4.	FDP Organized by NSIT, Patna	23.06.2020 — 29.06.2020	Ms. Amrita Prakash	Digital Marketing and E-Commerce	Zoom
5.	FDP Organized by Patna Women's College (Autonomous), Patna University	28.09.2020 — 03.10.2020	Ms. Manisha Prasad Ms. Amrita Prakash Mr. Sudhir Kumar	Curriculum Development for Outcome Based Education	Zoom
6.	FDP Organized by Department of Mathematics, Central University of Jharkhand, Ranchi	06.11.2020 — 10.11.2020	Mr. Sudhir Kumar Sinha	Recent Development in Mathematical Sciences (RDBMS)	Zoom
7.	FDP Organized by Vimala College, Autonomous, Thrissur	19.10.2020 — 23.10.2020	Ms. Manisha Prasad Ms. Renu Kumari	Research and Career	Zoom
8.	FDP Organized by Xavier Board of Higher Education in India in Collaboration with Edifyers Global	04.05.2020 — 05.05.2020	Ms. Manisha Prasad Ms. Anshu Ms. Amrita Prakash Ms. Renu Kumari	Teaching - Learning Evaluation using TALENT LMS	Zoom

M. Rashmi
Principal
Patna Women's College
Autonomous
Patna University
Bailey Road, Patna

Adina
Coordinator
Star College Scheme
Patna Women's College
Bailey Road, Patna-1

	Solutions LLP, India and EPIGNOSIS, USA				
9.	FDP Organized by Guru Nanak Institutions Technical Campus (Autonomous)	05.10.2020 — 10.10.2020	Ms. Manisha Prasad Ms. Anshu Ms. Amrita Prakash Ms. Renu Kumari	Emerging Trends in Digital Analytics	Zoom
10.	Online Course Organized by Amity University	06.07.2020	Ms. Amrita Prakash	Enhancing Programming Skill Using Advance CPP (C++)	Online
11.	FDP on International Business Management Institute, Berlin	03.05.2020	Ms. Deepa Sonal	Project Management Course	Zoom
13.	FDP Organized by Babu Banarasi Das Northern India Institute of Technology	19.06.2020 — 21.06.2020	Ms. Amrita Prakash	Role of LaTeX in Scientific Writing	Zoom
14.	AICTE Training And Learning (ATAL) Academy, Patna Women's College	21.09.2020 — 25.09.2020	Ms. Amrita Prakash	Technology Management	Zoom
15.	AICTE Training And Learning (ATAL) Academy, Symbiosis Institute of Technology	8.12.2020 – 12.12.2020	Ms. Amrita Prakash	Advancement in 3D printing and its future scope	Zoom
16.	FDP Organised by Birla Institute of Technology Mesra, Noida campus	11.05. 2020 — 16.05.2020	Ms. Manisha Prasad Ms. Anshu Ms. Amrita Prakash Ms. Renu Kumari	Moodle LMS: Exploring New Horizons of Teaching-Learning	Zoom
17.	FDP Organized by St. Xavier's College, Kolkata	30.07.2020	Ms. Amrita Prakash	NAAC Assessment and Accreditation Process	Zoom
18.	FDP Organized by Teaching Learning Centre, Ramanujan College, D U	18.05.2020 — 03.06.2020	Ms. Amrita Prakash	Managing Online Classes And Co-Creating Moocs:2.0	Zoom
19.	Workshop Organized by Shri Mallikarjun & Shri Chetan Manju Desai college, Canacona	08.06.2020 — 14.06.2020	Ms. Amrita Prakash Ms. Renu Kumari	Institutional Benchmarking of Best Practices	Zoom


Principal 25/6/21
 Patna Women's College
 Autonomous
 Patna University
 Bailey Road, Patna


Coordinator 25-6-21
 Star College Scheme
 Patna Women's College
 Bailey Road, Patna-1

20.	Online Training Organized by TechproLabz, School of Robotics	17.04.2020 — 23.04.2020	Ms. Amrita Prakash	Basics of Robotics using Arduino	Google Meet
21.	FDP Organized by Department of MCA & Computer Science, Patna Women's College	15.05. 2020 — 21.05.2020	Ms. Anshu Ms. Renu Kumari Ms. Nimisha Manan Ms. Deepa Sonal	Moodle LMS:Exploring New Horizons of Teaching-Learning	Zoom
22.	Online Training Organized by Amity University	27.07.2020	Ms. Amrita Prakash	Training on Recent Trends and Opportunities in Science and Technology by Amity School of Engineering	Zoom
23.	FDP Organized by St Joseph's College Autonomous , Tiruchirapalli, Tamil Nadu	30.06.2020 — 04.07.2020	Ms. Manisha Prasad Ms. Anshu Ms. Amrita Prakash Ms. Renu Kumari	FDP on Inclusive Procedures and Processes in Assessment and Accreditation	Zoom
24.	Birla Institute of Technology, Mesra, Noida Campus	16.05.2020	Ms. Manisha Prasad Ms. Anshu Ms. Amrita Prakash Ms. Renu Kumari	R Training by Spoken Tutorial Project, IIT Bombay	Zoom
25.	FDP Organised by Dept. of Computer Science in association with Aztech Technology & Engineers Private Ltd.	14.05.2019 — 30.05.2019	Ms. Anshu Ms. Amrita Prakash Ms. Renu Kumari Ms. Nimisha Manan	Python Programming	PWC
26.	FDP Organized by Babu Banarasi Das Northern India Institute of Technology, Lucknow	19.06.2020	Ms. Amrita Prakash	Recent Trends and Opportunities in Science and Technology by Department of Mathematics	Zoom
27.	Online Training Organized by Bodoland University	15.04.2020	Ms. Manisha Prasad Ms. Amrita Prakash Ms. Renu Kumari	Moodle Learning Management System by Spoken Tutorial Project, IIT Mumbai	Zoom
28.	AICTE Sponsored Short Term Training Programme (Series 2) on School of Management Studies	5.10.2020 – 10.10.2020	Ms. Renu Kumari	Emerging Trends in Digital Analytics	Zoom

M. Renu Kumari
Principal 25/6/21
Patna Women's College
Autonomous
Patna University
Bailey Road, Patna


Adina
Coordinator 25-6-21
Star College Scheme
Patna Women's College
Bailey Road, Patna-1


29.	FDP AICTE Sponsored Short Term Training Programme (Series2) on P.G Department of Gender Studies and Sarala Devi Center for Gender Research Rama Devi Women's University ,Odisha in collaboration with Policy Centre and Gender Lab of Miranda House , DU	24.08.2020 — 07.09.2020	Ms. Renu Kumari	Gendered Contours of the Pandemic :Reinventing Public Policy and Leadership transformation	Zoom
30.	Faculty development Programme Organized by Exceeds Academy (AatmNirbhar Bharat Self Reliant Course)	27.07.2020 — 02.08.2020	Ms. Renu Kumari	"Protecting your Computer yourself without repair or Maintenance Expenses"	Zoom
31.	FDP Organized by International School of Management, Patna	22.05.2020	Ms. Deepa Sonal	Writing Quality Research Paper and Proposal	Zoom
32.	FDP Organized by Department of MCA, Patna Women's College, Patna University	29.04.2020 — 30.04.2020	Ms. Manisha Prasad Ms. Anshu Ms. Amrita Prakash Ms. Renu Kumari Ms. Deepa Sonal	Effective Tools for Online Meeting and Teaching	Google Meet
33.	FDP Organized by St Joseph's College Autonomous , Tiruchirapalli, Tamil Nadu	30.06.2020 — 4.07. 2020	Ms. Manisha Prasad Ms. Anshu Ms. Amrita Prakash Ms. Renu Kumari	Performing and Designing experiments on virtual platform	Zoom
34.	Online Certification Course Organized by Department of Computer Science and Applications, St. Aloysius College, Jabalpur, MP	01.06.2020 — 07.06.2020	Ms. Manisha Prasad Ms. Renu Kumari	Python and Machine Learning	Zoom
35.	FDP Organized by CSI Student Branch- NSIT , Patna	04.06.2020 — 10.06.2020	Ms. Deepa Sonal	Machine Learning	Zoom
36.	Online Training Organized by Dept of Computer Eng, Marathwada Mitra Mandals, Pune, Mah.	08.06.2020 — 12.06.2020	Ms. Deepa Sonal	Advancement of IoT	Zoom

M. Renu Kumari
Principal 25/6/21
Patna Women's College
Autonomous
Patna University
Bailey Road, Patna - 1

Adina
Coordinator 25-6-21
Star College Scheme
Patna Women's College
Bailey Road, Patna-1

DEPARTMENT OF MICROBIOLOGY					
Sl. No.	Name of program	Date	Name of Faculty who attended	Topic	Venue
1.	Online FDP Organized by Internal Quality Assurance Cell (IQAC) in collaboration with the Department of Education, Patna Women's College, Autonomous	08.05.2020 - 09.05.2020	Dr. Jaya Philip Dr. NitiYashvardhini Dr. PreetiSwarupa Dr. Arti Kumari Dr. Satyamvada Swayamprabha	The Role of E-Learning during Lockdown: Academic Challenges and the Road Ahead	Zoom
2.	Online Faculty Development Programme Organized by Department of MCA & Computer Science, Patna Women's College in association with Remote Learning through Spoken Tutorial, IIT,	15.05.2020 — 21.05.2020	Dr. Jaya Philip Dr. NitiYashvardhini Dr. PreetiSwarupa Dr. Arti Kumari Dr. Satyamvada Swayamprabha	Moodle LMS: Exploring New Horizons of Teaching-Learning	Zoom
3.	Online Workshop Organized by Department of MCA Patna Women's College	29.04.2020 — 30.04.2020	Dr. Jaya Philip Dr. Niti Yashvardhini Dr. PreetiSwarupa Dr. Arti Kumari Dr. Satyamvada Swayamprabha	Effective Tools for Online Meeting and Teaching	Google Meet
4	Online national workshop Organized by the IQAC, Patna Women's College (Autonomous), Patna University, Patna	29.05.2020 - 30.05.2020	Dr. Jaya Philip	National Workshop on NAAC assessment and accreditation: preparation and training	Zoom
5.	Workshop "organized by F.E.T, M.J.P. Rohilkhand University, Bareilly	06.06.2020	Dr. Jaya Philip	VIRTUAL LAB	Zoom
6.	Webinar Organized by Marwari College, Bhagalpur in association with CSI Patna Chapter University, Bareilly	7.06.2020	Dr. Jaya Philip	"ARTIFICIAL INTELLIGENCE"	Zoom
7.	Online Faculty Development Programme Organized by EdFly	11.06.2020	Dr. Jaya Philip	Creating Tech-Savvy Teachers For future Classrooms- EdFly Training	Zoom


Principal 25/6/21
 Patna Women's College
 Autonomous
 Patna University
 Bailey Road, Patna - 1


Coordinator 25-6-21
 Star College Scheme
 Patna Women's College
 Bailey Road, Patna-1

8.	Two day faculty development programme Organized by Internal Quality Assurance Cell (IQAC), Patna Women's College, Patna	5.07.2019 - 06.07.2019	Dr. Niti Yashvardhini Dr. Preeti Swarupa		
9.	Online Workshop organized by Indian National Young Academy of Sciences and Department of Botany, Central University of Punjab, Bathinda, India in connection with World Environment Day	31.05.2020 – 5.06.2020	Dr. Niti Yashvardhini Dr. Preeti Swarupa	Tangled bank' encompassing 15 lectures	Zoom

9. Exhibitions/seminars/training Courses conducted:-

Vigyan Utsav

A series of science-based events “Vigyan Utsav” were organized to celebrate the National Science Day in the successive years under the aegis of star-college scheme funded by DBT. These events will be continued to be organized in the coming years.

DEPARTMENT OF PHYSICS						
Sl. No.	Event	Date	Topic	Resource Person	Venue	No. of Beneficiaries
1.	Science Exhibition	27.02.2019 - 28.02.2019	Group I – Automatic Street Light Group II – Drone and Border Security Alarm. Group III – JCBmodel. Group IV – Water Irrigation by Solar Panel. Group V – Automatic Traffic signal.		PWC	51
2.	Workshop	18.8.2018	Innovative Experiments in Basic Sciences – Low cost no cost experiments	Ms. Sapna Suman, Assistant Professor, St. Xavier's College, Patna.	PWC	200
3.	Vigyan Utsav: Working Model	15.03.2019	Science for the people and the people for Science		PWC	250

M. Rashmi M
Principal 25/6/21
Patna Women's College
Autonomous
Patna University
Bailey Road, Patna - 1

Adhira 25-6-21
Coordinator
Star College Scheme
Patna Women's College
Bailey Road, Patna-1

	Competition					
4.	Model Competition	24.10.19	Best out of Waste	Dr. Shobha Srivastava Dr. M.S.A. Ansari	PWC	200
5.	Vigyan Utsav	29.2.2020	Model Competition		PWC	250
6.	International Webinar	14.05.2020 — 15.05.2020	Effective tools for Research & Scientific presentation	Dr. Anamika Prasad, Dept. of Mechanical engineering, South Dakota State University		150
7.	e quiz	06.06.2020 - 11.06.2020	Optics: Interference of Light	Dr. Rohit Singh		150
8.	Online Training program	29.07.2020- 6.08.2020.	Robotics and its applications	Mr. Vivek Katore, Chief Technology Officer, Techprolabz School of Robotics, Patna		100
9.	Virtual Patriotic Song competition under Star college scheme of DBT	14.08.2020	Patriotic Song Competition	Dr. Rekha Kumari, Director Higher Education, Govt. of Bihar, Patna Dr. Akhilesh Gupta, Assistant Professor, Patna Science College Prof. Minakshi Prasad, Principal, Ganga Devi Mahila College		50
10.	e quiz on	22.12.2020- 23.12.2020	Basics of Classical Mechanics	Dr. Amrita		100

DEPARTMENT OF CHEMISTRY

Sl. No	Event	Date	Topic	Resource Person	Venue	No. of Beneficiaries
1.	Poster Exhibition	28.09.2018	Global warming and its effect		PWC	49
2.	Workshop	13.03.2019	Physico – Chemical Analysis of drinking water		PWC	71
3.	Poster Exhibition	10.02.2020	Benefits of Green Chemistry		PWC	44
4.	Model Making Competition	04.02.2020	Working Model Competition		PWC	52
5.	Model Making Competition	24.02.2021	Working Model Competition on e-waste		PWC	15

M. Roshni
Principal 25/6/21
Patna Women's College
Autonomous
Patna University
Bailey Road, Patna - 1

Adina
Coordinator 25-6-21
Star College Scheme
Patna Women's College
Bailey Road, Patna-1


DEPARTMENT OF ZOOLOGY


Sl. No	Event	Date	Topic	Resource Person	Venue	No. of Beneficiaries
1.	Training	07.03.2019	Workshop on Vermi composting and organic farming		PWC	150
2.	Training	09.03.2019	Workshop on Bee keeping		PWC	110
3.	A two days National Webinar	22.09.2020 – 23.09.2020	'Road Map for Wildlife Conservation and Use of Technologies'	<p>Day-1 :</p> <p>1. Shri Dipak Kumar Singh (IAS) Principal Secretary, Department of Forests and Environment, Govt of Bihar.</p> <p>2. Dr. Tasneem Habib, Chief Scientist, Madhya Pradesh Council of Science & Technology (MPCST), Deptt. of Science & Tech, Govt of MP.</p> <p>3. Dr. Gopal Sharma, Scientist-E & Joint Director, Zoological Survey of India, Govt of India.</p> <p>4. Shri Gyanant Singh, Advocate, Supreme Court of India.</p> <p>Day-2 :</p> <p>The Keynote Speaker :</p> <p>1. Shri PK Gupta, Chief Wildlife Warden, Dept of Forests and Env., Govt of Bihar.</p> <p>The Resource Persons:</p> <p>1. Dr. Sanjay Babu, Consultant, Indo-German Co-operative Organization, Deutsche Gesellschaft fur New Delhi.</p> <p>2. Dr. Samir Kumar Sinha, Deputy Director & Head of Conservation in Wildlife Trust of India (WTI), New Delhi.</p> <p>3. Dr. Hilloljyoti Singha, Professor & Head Department of Zoology, Bodoland University, Assam.</p> <p>4. Shri Arvind Mishra, State Co-ordinator, Indian Bird Conservation Network, Bihar Chapter.</p>	PWC	250

M. Rashmi
Principal 25/6/21
Patna Women's College
Autonomous
Patna University
Bailey Road, Patna - 1

Ashra
Coordinator 25-6-21
Star College Scheme
Patna Women's College
Bailey Road, Patna-1

DEPARTMENT OF BOTANY						
Sl. No	Event	Date	Topic	Resource Person	Venue	No. of Beneficiaries
1.	Workshop	06.03.2019	"Hydroponics"	Md. Jawaid Alam	PWC	100
2.	Workshop	08.03.2019 - 14.03.2019	"Technique of Mushroom Cultivation"	Dr. Urvashi Sinha	PWC	15
3.	Working model Competition cum Exhibition	29.01.2020	"Non conventional Energy Sources"	Dr Shahla Yasmin, Dr Amrita and Dr Vijay Kumar	PWC	100
4.	Educational trip	04.02.2020	Green audit, soil analysis	Dr. Urvashi Sinha, Dr. Anjana Sinha,	Botanical Garden Patna	110
5.	Industrial visit	10.02.2020	Working of the plant and Analysis of quality	Mr. Sushil Kumar, Senior Staff of Sudha Dairy, Patna	Sudha Dairy, Patna	110
6.	National webinar	06.02.2021	"Covid 19 vaccine: Ifs and Buts"	Dr. Kunal Prasar, Consultant, Patna AIIMS Dr. Abhinav Singh, Consultant, Jeeveshika Niketan Patn	Zoom	250
DEPARTMENT OF COMPUTER SCIENCE						
Sl. No	Event	Date	Topic	Resource Person	Venue	No. of Beneficiaries
1.	Hands on Training	26.10.2018 - 27.10.2018	Identification of Bacteria Isolated from Computers	Mr. Sumeet Ranjan, Scientist-I, Central Research Laboratory, Patna Women's College	CRL, PWC	76
2.	Workshop	04.02.2019 - 05.02.2019	BLAST for Beginners: An application of Computer to Genomes	Mr. Maneesh Kumar, Senior Research Fellow, Rajendra Memorial Research Institute of Medical Science, Patna Ms. Aarti, Deptt. of Microbiology, Patna Women's College	PWC	80


 Principal 25/6/21
 Patna Women's College
 Autonomous
 Patna University
 Bailey Road, Patna - 1


 Coordinator 25-6-21
 Star College Scheme
 Patna Women's College
 Bailey Road, Patna-1

3.	Hands on Training	11.07.2019 - 26.07.2019	Arduino Programming	Mr. Rohit Singh, Electrical and Electronics Department, Netaji Subhash Institute of Technology	PWC	150
4.	Hands on Training	21.10.2019 - 26.11.2019	Basics of Robotics	Mr. Vivekanand Prasad, Founder and Director, Techprolabz, School of Robotics Patna Mr. Jaynendra Sharma, Co- founder, Techprolabz	PWC	160
5.	Hands on Training	20.11.2019 - 09.01.2020	Internet of Things (IoT) Raspberry Pi	Mr. Riyaz Jamaal, R & D Associate, Techprolabz Mr. Vivek Dadarao Katore, Techprolabz	PWC	80
6.	Hands on Training	13.01.2020 - 01.02.2020	Gesture Robotics	Mr. Vivek Dadarao Katore, Techprolabz Ms. Nitika Raizada, Techprolabz	PWC	140
7.	Hands on Training	03.02.2020 - 04.03.2020	Wireless Robotics	Mr. Vivek Dadarao Katore, Techprolabz	PWC	80
8.	Hands on Training	13.01.2020 - 06.02.2020	Drone	Mr. Jaynendra Sharma Co- founder, Techprolabz Mr. Vivekanand Prasad, Founder and Director, Techprolabz	PWC	80
9.	Hands on Training	07.02.2020 - 13.03.2020	Network Security	Mr. Riyaz Jamaal, R & D Associate, Techprolabz Mr. Vivekanand Prasad, Founder and Director, Techprolabz	PWC	160
10.	Vigyan Utsav	15.03.2019 - 16.03.2019	Working Model Competition	Mr. Azad Deepak, Director, Aztech Technology & Engineers Pvt Ltd. (Judged the Competition)	PWC	

M. Ranshani
Principal 25/6/21
Patna Women's College
Autonomous
Patna University
Bailey Road, Patna - 1

Ashra
Coordinator 25-6-21
Star College Scheme
Patna Women's College
Bailey Road, Patna-1

11.	Workshop	27.03.19 - 29.03.19	Basics of Networking	Mr. Azad Deepak, Director, Aztech Technology & Engineers Pvt. Ltd. Mr. Vivek Ranjan, Hardware and Network Expert, CTO, Aztech Technology & Engineers Pvt Ltd.	PWC	80
12	Online Training - Spoken Tutorial	January – June 2020	Java Programming Python Program. Arduino Program.	Spoken Tutorial, IIT Mumbai	Online	250
13	Vigyan Utsav	29.02.2020	Short Film Making Competition	Dr. Anuradha Krishna, Govt. Polytechnic, DST Dr. Chandra Shekhar Singh Joint Director Govt. Polytechnic, DST Dr. Anant Kumar Joint Director Govt. Polytechnic, DST	PWC	150
14	National Webinar under DBT	17.06.2020 & 18.06.2020	Nurturing Research Culture and Enhancing Teaching Learning	Prof. Shashi Tyagi, Professor, Gargi College, D.U. Dr. Rajendra Shinde, Principal, St. Xaviers College, Mumbai Dr. Tumul Singh, Coordinator, Star College Scheme, Udai Pratap College, Varanasi	Online	300

M. Ranshumi
Principal 25/6/21
Patna Women's College
Autonomous
Patna University
Bailey Road, Patna - 1

Ashra
Coordinator 25-6-21
Star College Scheme
Patna Women's College
Bailey Road, Patna-1

DEPARTMENT OF MICROBIOLOGY

Sl. No	Event	Date	Topic	Resource Person	Venue	No. of Beneficiaries
1.	National Seminar	27.11.2018 - 28.11.2018	New Horizons of Biological Sciences: Advantages and challenges"	Prof. B. N. Tiwary , Department of Biotechnology, Guru Ghasi Das Central University, Bilaspur, Chattisgarh, Prof. Ashok Ghosh , Chairman, Bihar State Pollution Control Board & Prof. and Head, Research, Mahavir Cancer Sansthan, Patna, Dr. Tanuja , Head, Dept of Botany, TPS College, PPU, Patna. Prof A K Sharan , Chief Coordinator, N.O.U., Patna, Dr Aparajita Krishna , Asst. Prof., Department of Physics, Patna Women's College, Prof. (Dr) Sheo Satya Prakash , Retd. Professor, Department of Chemistry, A. N. College, M.U, Prof. Indra Nath Mishra , Director, Dept. of Biotechnology, L. N. Mithila University, Darbhanga and Prof. Alok Narain Singh , Retd. Professor, Department of Botany, V.K.S.U., Ara,	PWC	
2.	Workshop	09.03.2019	Chromatography Technique	Dr. Nidhi Rastogi , Assistant Professor Department of biotechnology		40
3.	Display Competition		An insight into the microbial diversity	Dr.Sister Celine Crasta AC, Head of Department of History, Dr. Joyita Das , Assistant Professor, Department of Zoology and Dr. Rohit Singh , Assistant Professor, Department of Physics		35
4.	Vigyan Utsav	15.3.2019 -- 16.03.2019	Innovative science theme based cultural event			35
5.	Workshop	23.10.2019 -24.10.2019	Gel Electrophoretic Technique			80

M. Rashmi
Principal 25/6/21
Patna Women's College
Autonomous
Patna University
Bailey Road, Patna - 1

Ashra
Coordinator 25-6-21
Star College Scheme
Patna Women's College
Bailey Road, Patna-1

6.	Cultivation of Mushroom	28.01.2020 - 29.01.2020	CULTIVATION OF PLEUROTUS MUSHROOM: under Mushroom Culture Technique			85
7.	Competition	14.02.2020	Microorganisms in Fermented Food			50
8.	Training	15.02.2020	Assessment of Quality of Milk			50
9.	Vigyan Utsav	28.2.2020 & 29.2.2020	Innovative science theme based cultural event			100

11. Outreach activities:-

DEPARTMENT OF PHYSICS

1. Research Project on Measurement of Noise Pollution Level:

The project was performed on the topic "Measurement of Noise pollution" by the students of B.Sc. III, Physics Honours under the DBT Star Scheme in Collaboration of Bihar State Pollution Control Board.

- The whole class was divided into two groups with two group leaders in each group to supervise the whole work. The project was done on 31st of October and 1st of November at two sites and the places were income tax and airport. It was a two day outreach project. Each group had worked on both places alternately.
- To complete the project, some of girls took the work of counting vehicles and some of girls had taken the work of recording the intensity of sound.
- The purpose of doing this project is to make people realize how much noise affects our health and our city. People should know that we can travel without making noise and save our health and environment.
- Income tax golambar was chosen because it is the one of the most crowded place in Patna.
- BMP ground is situated near Patna airport and it is one of the important area of Patna.
- This work deals with monitoring and modelling of the disturbances caused due to vehicular road traffic interrupted by traffic flow conditions on personal work performance. Traffic volume count and noise indices data were collected simultaneously at two selected sites of the city. A relationship was developed between different traffic noise parameters and its harmful impact on work competency of individuals.

2. Outreach Program : Industrial training at airport Patna on 16.11.19. The resource persons are Dr. Aprajita Krishna, Dr. Rohit Singh, Dr. Kavita Verma.

M. Rashmi's
Principal 25/6/21
Patna Women's College
Autonomous
Patna University
Bailey Road, Patna - 1

Ashna
Coordinator 25-6-21
Star College Scheme
Patna Women's College
Bailey Road, Patna-1

DEPARTMENT OF COMPUTER SCIENCE

Sl. No.	Event	Topic	Resource Persons	Venue
1.	Outreach Programme for Slum Children	Personal Hygiene and COVID – 19 Awareness & Protection	Ms. Manisha Prasad Ms. Renu Kumari, Deptt. of Computer Sc. and Students of BCAVI Sem.	In collaboration with Mishra Social Skills (NGO) Bailey Road, Patna
2.	Outreach Programme for Slum Children	Tutorials and Painting Competition	Ms. Anshu, Ms. Amrita Prakash Ms. Nimisha Manan, Deptt. of Computer Sc. and students of BCA VI Sem.	In collaboration with Mishra Social Skills (NGO) Bailey Road, Patna

CHEMISTRY BOTANY ZOOLOGY MICRIBIOLOGY	Due to Pandemic Contact programme was not conducted but virtual training programs were done .
--	---

12. Colleges mentored to apply for DBT Star College:-

Mentoring	Status
Patna Science College	Received Grant
A.N.College, Patna	Received Grant
Ganga Devi College, Patna	Not Accepted after presentation
R.D and D.J College Munger	Rejected at initial stage
Jamalpur College	Rejected at initial stage

- A.N. College, Patna
- Patna Science College (Both of these colleges got the Star scheme)
- Seven Colleges of Munger

13. Invited Lectures:-

Name, designation, host institute of guest faculty invited:

<u>DEPARTMENT OF PHYSICS</u>						
Sl.No	Name	Designation	Host Institute	Date of Visit	Topic of Lecture	No. of Beneficiaries
1.	Prof. Vijay A. Singh	National Coordinator, Science Olympiad	Homi Bhabha Centre for Science Education, Mumbai.	21.07.18	The Golden Ratio- Centre of Mass	130

M. Ranhasi
Principal 25/6/21
Patna Women's College
Autonomous
Patna University
Bailey Road, Patna - 1

Ashu
25-6-21
Coordinator
Star College Scheme
Patna Women's College
Bailey Road, Patna-1


2.	Mr. Saurabh Suman	Chief Trainer	Atal Tinkering lab, Computer Section (Supaul)	18.01.19	Arduino Programming	130
3.	Dr. Akhilesh Kumar Gupta	Asst. Prof.	A.N College, Patna	18.12.2020 19.12.2020	A Broader spectrum of Mechanics	150

DEPARTMENT OF ZOOLOGY

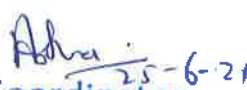
Sl.No	Name	Designation	Host Institute	Date of Visit	Topic of Lecture	No. of Beneficiaries
1.	Prof Dr Geeta Sinha		Patna Medical College and Hospital, Patna	14.09.18	Hormonal Issues	100
2.	Ms. Margaret Molomoo Ms. Debopriya		Taru Mitra, Patna	07.03.19	Organic Farming	100
3.	Sri Parmesh Kumar		Shiva Madhumakkhi Palan Kendra, Patna	09.03.19	Bee Keeping	150
4.	Dr. Faiza Abbasi	Wildlife Biologist, Assistant Professor cum Assistant Director of UGC Human Resource Development Centre, AMU	Aligarh Muslim University	12.09.2020	Darwinian Evolution and Impending Ecological Collapse in the post COVID-19 Era	150

DEPARTMENT OF BOTANY


Sl.No	Name	Designation	Host Institute	Date of Visit	Topic of Lecture	No. of Beneficiaries
1.	Prof. M. P. Trivedi	Head, Department of Botany	Patna Science College, P.U.	28.08.2020	Environmental problems in India.	150
2.	Dr. Gopal Sharma	Deputy Director	Zoological Survey of India, Patna	24.08.2019	Water Crisis and its Conservation	150
3.	Dr. Jainendra Kumar	Dean Science and Retd. Prof. Botany, Patliputra University	Patliputra University	29.08.2019	Scientific approach for conservation of drug yielding plants for everybody use	150



 Principal 25/6/21
 Patna Women's College
 Autonomous
 Patna University
 Bailey Road, Patna - 1

34


 Coordinator 25-6-21
 Star College Scheme
 Patna Women's College
 Bailey Road, Patna-1

4.	Prof. M.P. Trivedi	Prof., Head Department of Botany	Patna Science College	12.10.2019	Speciation in higher plants	130
DEPARTMENT OF COMPUTER SCIENCE						
Sl.No	Name	Designation	Host Institute	Date of Visit	Topic of Lecture	No. of Beneficiaries
1.	Prof. Vijay A. Singh	National Coordinator, Science Olympiad	Homi Bhabha Centre for Science Education, Mumbai.	21.07.18	The Golden Ratio- Centre of Mass	130
2.	Mr. Saurabh Suman	Chief Trainer	Atal Tinkering lab, Computer Section(Supaul)	18.01.19	Arduino Programming	130
3.	Mr. Azad Deepak & Ms. Sonam Kumari	Director Master Trainer	Aztech Technology and Engineers Pvt, Ltd , Patna	06.02.2021	Software Development Process	80
4.	Mr. Vivekanand Prasad	Founder and Director	Techprolabz Pvt. Ltd, Patna	31.01.2021	Technology and Startups	80
5.	Dr. P. K. Tiwari	Principal Incharge, Incubation Center	IIT, Patna	23.10.2019	Technology, Innovation & Startup	130
6.	Mr. Vivekanand Prasad	Founder and Director	Techprolabz, Patna	23.10.2019	Technology, Innovation & Startup	130
7.	Dr. Parikshit Bansal	Intellectual Property Rights Educator	Bansal IP Associates, Mohali, Punjab	14.02.2020	Usefulness of Intellectual Property Rights for Students and Teachers	80
8.	Ms. Kompal Bansal	Patent Agent	Intellectual Property & IT Technology Cell	14.02.2020	Usefulness of Intellectual Property Rights for Students and Teachers	80


Principal 25/6/21
 Patna Women's College
 Autonomous
 Patna University
 Bailey Road, Patna - 1


Coordinator 25-6-21
 Star College Scheme
 Patna Women's College
 Bailey Road, Patna-1

14. Self-Evaluation

DEPARTMENT OF PHYSICS

Objective (as stated in Proposal)

Project Work – as stated in Proposal

1. Synthesis and characterization of Nanoparticles
2. Characterization of archeological artifacts with the help of non invasive techniques.

Project Work Undertaken

During the 3 Years tenure Undergraduate Research Projects were undertaken. These projects were supervised by the faculty members and peer reviewed by externals. The students were asked to give presentation of their research projects. This enhanced presentation skills and inculcate research temperament in the students. The list of the Research Projects are given below:-

<u>DBT Projects for the year 2018-19</u>		
Sl. No.	Name of the Project	Name of Supervisor
1.	Synthesis of Barium Cobalt Titanate, a lead free compound by citrate precursor method	Dr. Kavita Verma
2.	Synthesis and Characterization of Electrodeposited Ni, Co, Mn metals and Ni-Co binary alloy	Dr. Rohit Singh
3.	Preparation of material for Dielectric and electrical properties of cobalt doped Barium Titanate	Dr. Surabhi Prasad
4.	Design and analysis of Mobile Phone detector	Dr. Amrita
<u>DBT Projects for the year 2019-20</u>		
Sl. No.	Name of the Project	Name of Supervisor
1.	A Quick review on Green Systems within the Indoor Environment.	Dr. Surabhi Prasad
2.	The Study of Excavated Materials at KesariyaStupa.	Dr. Aprajita Krishna
3.	Synthesis and Electrical Properties of lead free Nanoparticles.	Dr. KavitaVerma
4.	Synthesis and Analysis of ZnO Nanoparticles using Hydrothermal chemical Precipitation Method.	Dr. Amrita
5.	Synthesis and Characterization of Zinc thin Films on Copper substrate.	Dr. Rohit Singh
<u>DBT Projects for the year 2020-21</u>		
Sl. No.	Name of the Project	Name of Supervisor
1.	Material Characterization of Munger Fort	Dr. Aprajita Krishna
2.	A study of Comparative analysis of monuments and buildings from ancient era	Dr. Aprajita Krishna
3.	Synthesis and XRD,XRF characterization of Zine Ferrite nanoparticles	Dr. Kavita Verma
4.	Crystal structure of noble metals	Dr. Rohit Singh

M. Ranjani
Principal 25/6/21
Patna Women's College
Autonomous
Patna University
Bailey Road, Patna - 1

36

Adina
Coordinator 25-6-21
Star College Scheme
Patna Women's College
Bailey Road, Patna-1

5.	Model and analysis of password and RFID door lock	Dr. Amrita
6.	Studies of Water in different vessels	Dr. Kavita Verma
7.	Evolution of Artificial intelligence and how its applications in different fields are transforming the world	Dr. Kavita Verma

Project Work % Achieved – 100%

Summer Training - as stated in Proposal

To visit Hospitals and to provide exposure to the medical instruments working under the principles of Physics, like CT, MRI and NMR scanning.

Summer Training Undertaken

1. Summer Training was done on Aircraft Maintenance.
2. Due to Covid, visit to the Hospitals were not done but the instruments like CT, MRI and NMR were demonstrated and explained in online mode.

Summer Training % Achieved – 100%

During the 3 Years tenure additional training was undertaken.

Industrial Visit - as stated in Proposal

1. To visit the manufacturing unit of transformer at Electricity department and to learn different types of transformers.
2. To visit industries involve in production of electrical wire so that students can learn the process of insulation etc.

Industrial Training Undertaken

- Visit to MSME, Govt. of India Society:
Venue: Tools and Training Centre, Patna, Bihar-800013, Patliputra Industrial Area Estate.

Industrial Visit % Achieved – 100%

DEPARTMENT OF CHEMISTRY

Objective (as stated in Proposal)

Project Work – as stated in Proposal

1. Physico chemical quality of various ponds of Patna.
2. Analysis of drinking water quality.
3. Analysis of micro and macro elements in soil.

M. Rashmi
Principal 25/6/21
Patna Women's College
Autonomous
Patna University
Bailey Road, Patna - 1

Ashra
Coordinator 25-6-21
Star College Scheme
Patna Women's College
Bailey Road, Patna-1

Project Work Undertaken

During the 3 Years tenure Undergraduate Research Projects were undertaken. These projects were supervised by the faculty members and peer reviewed by externals. The students were asked to give presentation of their research projects. This enhanced presentation skills and inculcate research temperament in the students. The list of the Research Projects are given below:-

<u>DBT Projects for the year 2018-19</u>		
S. No.	Name of the Project	Name of Supervisor
1.	Determination of lactose and various adulterants in different milk samples	Dr. Ashish Kumar
2.	To Analyse the Composition of heavy metal in different type of Sindoor available in market	Ms. Amita Prasad
3.	Detection of heavy metal in fruit juices in different packing material	Dr. Madhu Rani Sinha
<u>DBT Projects for the year 2019-20</u>		
S. No.	Name of the Project	Name of Supervisor
1.	A Comparative study of the Calories and Nutrients contents in different varieties of sprouts	Ms. Amita Prasad
2.	Determination of heavy metals (lead and cadmium in different brands of Henna (MEHANDI)	Dr. Madhu Rani Sinha
3.	Preparation of a plant – based mosquito repellent and to compare its effectiveness against commercial product.	Dr. Madhu Rani Sinha
4.	Synthesis of biodiesel from fresh and waste vegetable oil and its comparative analysis	Dr. Jyotsana Kumari
5.	Physicochemical analysis of water of different regions of Patna	Ms. Amita Prasad
<u>DBT Projects for the year 2020-21</u>		
S. No.	Name of the Project	Name of Supervisor
1.	Determination of Toxic metal in different brands of Chocolates & Candies	Dr. Nandini Kumari
2.	Extraction of Nicotine Sulphate from samples of Cigarettes	Dr. Madhu Rani Sinha
3.	Extraction of Nutraceutical components from various bioactive food items	Dr. Jyotsana Kumari
4.	Extraction and formulation of perfume from plants	Ms. Amita Prasad

M. Rashmi
Principal 25/6/21
Patna Women's College
Autonomous
Patna University
Bailey Road, Patna - 1

Ashish
25-6-21
Coordinator
Star College Scheme
Patna Women's College
Bailey Road, Patna-1

Project Work % Achieved – 100%

Summer Training - as stated in Proposal

1. To visit IIT's and NCL to study the working of different instruments and gain exposure to analytical instrumentation techniques.
2. To visit Sudha Dairy to learn about adulteration of milk.
3. To visit Rajendra Memorial Research Institute and learn different instruments.

Summer Training Undertaken

- Visited IIT's and NCL to study the working of different analytical instrumentation techniques and Sudha Dairy to learn about adulteration of milk.
- Due to Covid visit to Rajendra Memorial Research Institute was not done but the instruments were demonstrated and explained in online mode.

Summer Training % Achieved – 100 %

Industrial Visit - as stated in Proposal

To visit industries at Electroplating & gold plating unit to gain knowledge about the basic Principles involved in electroplating process.

Industrial Visit Undertaken

Due to Covid, visit to the industries at Electroplating & gold plating unit were not done but the practical's were demonstrated and explained in online mode.

Industrial Visit % Achieved – 100%

DEPARTMENT OF ZOOLOGY

Objective (as stated in proposal)

Project Work – as stated in Proposal

1. Efficacy of earthworms species to bio accumulate heavy metals or other contaminants of water.
2. Identification and control of stored grain pest.
3. Biological control of mosquito larvae.
4. Hormonal assays in females (Thyroid T3, T4, TSH)

M. Kashanti
Principal 25/6/21
Patna Women's College
Autonomous
Patna University
Bailey Road, Patna - 1

Ashra 25-6-21
Coordinator
Star College Scheme
Patna Women's College
Bailey Road, Patna-1

Project Work Undertaken

During the 3 Years tenure Undergraduate Research Projects were undertaken. These projects were supervised by the faculty members and peer reviewed by externals. The students were asked to give presentation of their research projects. This enhanced presentation skills and inculcate research temperament in the students. The list of the Research Projects are given below:-

<u>DBT Projects for the year 2018-19</u>		
S. No.	Name of the Project	Name of Supervisor
1.	Analysis of chemical nutrients in the vermi compost processed by <i>Eisenia fetida</i> and its effect on the growth of chilli plant <i>Capsicum annum</i>	Dr. Sister M Stuti A.C.
2.	Antimicrobial properties of ethanolic extracts of ginger and garlic	Dr. Reshma Sinha
3.	Detection of formalin in fish samples collected from different regions of Patna	Dr. Rachna Sahay
4.	Acne remediation through herbal extracts	Dr. Reshma Sinha
<u>DBT Projects for the year 2019-20</u>		
S. No.	Name of the Project	Name of Supervisor
1.	Analysis and comparison of adulterants in some common food stuff.	Dr. Shobha Shrivastava
2.	Analysis of cow's urine for detection of anti- bacterial properties.	Dr. Sapna Kumari
3.	Identification and isolation of bacteria from street food.	Dr. Sapna Kumari
4.	Study of sleep habits and sleep problems among students of age group 18 to 24 years old in Patna Women's College, Bihar, India	Dr. Sapna Kumari
5.	Analysis of pH, Titratable Acidity (TA) and ascorbic acid content in various fruits sample commonly consumed in Patna, Bihar.	Mr. Rajeev Ranjan
<u>DBT Projects for the year 2020-21</u>		
S. No.	Name of the Project	Name of Supervisor
1.	Bioaccumulation Of Heavy Metals in Indigenous Species From River Ganga, Patna	Mr. Sumeet Ranjan
2.	Prevalence Of Various Types Of Menstrual Disorders Among The College Girls And Their Relation With Life Style Factors : A Survey Based Study	Dr. Anupma Kumari
3.	Identification Of Arsenic Contaminated Groundwater Sources In Villages Situated Along River Ganges In Bihar	Mr. Sumeet Ranjan

M. Ranjan
Principal
Patna Women's College
Autonomous
Patna University
Bailey Road, Patna - 1
25/6/21

40

Ashwini
Coordinator
Star College Scheme
Patna Women's College
Bailey Road, Patna-1
25-6-21

4.	Impact of Mental Health and Sanitizations and Its Related Issues During COVID-19 Pandemic In Universities Students	Mr. Rajeev Ranjan
5.	Efficiency Of Antibacterial Soaps and Handwashes	Mr. Sumeet Ranjan
6.	Survey On Association of ABC Blood Group with Dengue Fever	Dr. Sapna Kumari

Project Work % Achieved – 100%

During the 3 Years tenure additional projects were undertaken

Summer Training - as stated in Proposal

1. To visit Zoological Survey of India, Patna Circle.
2. To visit Sri Krishna Science Center.
3. To visit Zoological park of Patna.

Summer Training Undertaken

Visited Zoological Survey of India, Patna Circle, Sri Krishna Science Center and Zoological park of Patna

Summer Training % Achieved – 100%

Industrial Visit - as stated in Proposal

1. To learn the immunological techniques and to study histo pathological slides in Pathology laboratory.
2. Tie – up with hospitals / pathological labs to learn pathological testing.

Industrial Visit % Achieved – 70%

Industrial Visit undertaken

- Educational tour to Rajgir Wild life Sanctuary

Reasons for underachievement / If achieved, state in quantitative metrics

- Instead of Pathology Lab, the Immunological techniques were studied in Central Research Laboratory, Patna Women's College

M. Rashmi
Principal 25/6/21
Patna Women's College
Autonomous
Patna University
Bailey Road, Patna - 1

Adhna
Coordinator 25-6-21
Star College Scheme
Patna Women's College
Bailey Road, Patna-1

DEPARTMENT OF BOTANY

Objective (as stated in Proposal)

Project Work – as stated in Proposal

1. To study the plant biodiversity in Patna by collection of plants and preparation of herbarium sheets.
2. To estimate the level of pesticides in the vegetable grown in Patna Region with help of HPLC.
3. Hydro culture

Project Work Undertaken

During the 3 Years tenure Undergraduate Research Projects were undertaken. These projects were supervised by the faculty members and peer reviewed by externals. The students were asked to give presentation of their research projects. This enhanced presentation skills and inculcate research temperament in the students. The list of the Research Projects are given below:-

<u>DBT Projects for the year 2018-19</u>		
S. No.	Name of the Project	Name of Supervisor
1.	Assay and assessment of allelopathic effects of <i>Eichhornia</i> spp. against selected strains of microbes.	Dr. Urvashi Sinha
2.	Green synthesis of silver nanoparticles using the natural product of <i>Phyllanthus niruri</i> and their antimicrobial activities.	Ms. Isha Gaurav
3.	Phytochemical analysis and antimicrobial activities of guava leaf extract on gram -ve and gram +ve bacteria	Dr. Pinky Prasad
4.	Estimation of chemical components and nutritional values of edible mushroom <i>Agaricus bisporus</i>	Dr. Pinky Prasad
5.	Comparative evaluation of phytochemical and antimicrobial properties of Apple peel, Aloe vera and Tomatao peel.	Ms. Isha Gaurav
<u>DBT Projects for the year 2019-20</u>		
S. No.	Name of the Project	Name of Supervisor
1.	Comparative assessment of the rate of growth and plant vigor of hydroponically grown plants and plants conventionally in soil.	Dr. Pinky Prasad
2.	Bio production of silver nanoparticle from <i>Phyllanthus</i> sp. and their antimicrobial activity against some plant pathogenic microorganisms	Ms. Isha Gaurav
3.	Effect of salinity on seed physiology of <i>Vigna radiate</i>	Dr. Urvashi Sinha
4.	Antimicrobial activity of Silver nanoparticle biosynthesis with <i>Withania species</i>	Ms. Isha Gaurav

M. Rishu
Principal 25/6/21
Patna Women's College
Autonomous
Patna University
Bailey Road, Patna - 1

42

Ashra
Coordinator 25-6-21
Star College Scheme
Patna Women's College
Bailey Road, Patna-1

<u>DBT Projects for the year 2020-21</u>		
S. No.	Name of the Project	Name of Supervisor
1.	Phytochemical analysis of Papaya leaves and comparison of the therapeutic role of each compound with standard medicines.	Dr. Pinky Prasad
2.	Determination of iron in drinking water.	Dr. Piyush Kumar Rai
3.	Antibacterial effect of onion.	Dr. Piyush Kumar Rai
4.	Electricity generation from living plants using plant microbial fuel cell technology	Dr. Pinky Prasad
5.	Study of effect of chemical and bio pesticide on soil and growth parameters in plants.	Dr. Pinky Prasad
6.	Effect of <i>Aloe vera</i> gel on morphology and phenolic content of <i>Hibiscus rosa sinensis</i> .	Dr. Urvashi Sinha
7.	Isolation of microorganisms from soil sample by serial dilution using aseptic techniques.	Dr. Anjana Varma

Project Work % Achieved – 100%

Summer Training - as stated in Proposal

1. Micro propagation of various herbal plants.
2. Training in Molecular biology Techniques.

Summer Training Undertaken

Training was given in the Central Research Laboratory only. Achieved because of increased grant for each research projects. Learning opportunities beyond class rooms have considerably improved, providing skill enhancement workshops on the topics like cultivation of mushroom and soilless organic farming.

Summer Training % Achieved – 100%

Industrial Visit - as stated in Proposal

To visit Plant Tissue culture labs and Mushroom production lab around Patna

Industrial Visit Undertaken

- Educational trip to Kumhrar Archaeological Park, Patna
- Working of the plant and Analysis of quality at Sudha Dairy, Patna
- Green audit, soil analysis at Botanical Garden, Patna

Industrial Visit – 100%

M. Ranjani
Principal 25/6/21
Patna Women's College
Autonomous
Patna University
Bailey Road, Patna - 1

Anjana
25-6-21
Coordinator
Star College Scheme
Patna Women's College
Bailey Road, Patna-1

DEPARTMENT OF COMPUTER SCIENCE

Objective (as stated in Proposal)

Project Work – as stated in Proposal

1. To design a drone-based sensor and implement it to prepare a database for the Heritage sites in Bihar.
2. To monitor environmental pollution – air, noise and water.

Project Work Undertaken

During the 3 Years tenure Undergraduate Research Projects were undertaken. These projects were supervised by the faculty members and peer reviewed by externals. The students were asked to give presentation of their research projects. This enhanced presentation skills and inculcate research temperament in the students. The list of the Research Projects are given below:-

<u>Projects for the year 2018 - 19</u>		
The students of Sem III were given the project for the Research and Development of Sensor Based devices using Arduino Kit.		
<u>DBT Projects for the year 2019-20</u>		
Sl. No.	Name of the Project	Name of Supervisor
1.	A Study of Application of E- Learning in Education	Ms.Manisha Prasad
2.	Big Data: Data Storage and Retrieval	Ms. Anshu
3.	Impact Of Internet On Teenagers	Ms. Renu Kumari
4.	Digital Jewellery: An Upcoming Technology	Ms. Nimisha Manan
5.	Artificial Intelligence Use In medical Field	Ms. Deepa Sonal
6.	Fingerprint Sensors: Issues and Challenges in Security	Ms. Deepa Sonal
<u>DBT Projects for the year 2020-21</u>		
Sl. No.	Name of the Project	Name of Supervisor
1.	A Study of Perception of Youth about Online Education in Patna during COVID-19.	Ms. Manisha Prasad
2.	Application of Machine Learning and Artificial Intelligence for COVID-19 Pandemic.	Ms. Anshu
3.	A Comparative Study on Different Teaching Learning Application Used in Pandemic Period	Ms. Amrita Prakash
4.	Impact of Social Media on youth of age group 15 to 24 years	Ms. Renu Kumari

M. Rashmi
Principal 25/6/21
Patna Women's College
Autonomous
Patna University
Bailey Road, Patna - 1

44

Adna
Coordinator 25-6-21
Star College Scheme
Patna Women's College
Bailey Road, Patna-1

5.	A Study on the Impact of Human Computer Interaction on the people of Bihar	Ms. Nimisha Manan
6.	An IoT-Based Model: Defending Against COVID-19	Ms. Deepa Sonal

Project Work % Achieved – 100%

Summer Training - as stated in Proposal

1. Hardware course
2. Web Designing
3. Financial Accounting

Summer Training Undertaken

- Instead of 3D Animation and Web Designing, the department had conducted In – House training programmes throughout the year for students such as, Network Security, Raspberry Pi (IOT)
- In the Hardware Course, different training programs were conducted as Arduino programming, Basics of Robotics.
- Also, the department had conducted, Faculty Development Programme for the faculties of Science Departments on “Python Programming”
- Industrial Visit was planned at end Semester but not done due to Covid pandemic.
- Students are involved in the development of software, applications and websites under different Projects.
- Summer training – Instead of 3D animation, the students underwent ten days 3D Printing training programme.
- This year department had also conducted one week summer training programme in Computer Skills for the Non teaching staff of Patna Women’s College.

Summer Training % Achieved – 100%

Industrial Visit - as stated in Proposal

1. To visit IT parks of India
2. Leading software industries

Industrial Visit Undertaken

Summer training –Students of BCA Final year visited Techprolabz Pvt. Ltd. (Incubatee of IIT Patna) to familiarise themselves with the avenues of Entrepreneurship in Technological

M. Rishami
25/6/21
Principal
Patna Women's College
Autonomous
Patna University
Bailey Road, Patna - 1

45

Adhva
25-6-21
Coordinator
Star College Scheme
Patna Women's College
Bailey Road, Patna-1

Domain and Aztech Technology and Engineers Pvt. Ltd.(ISO 9001 certified Software Development Company registered under MSME and Ministry of corporate affairs) for Software Development Process.

Training programme on Machine Learning using Python is in the pipeline which could not be conducted earlier due to Pandemic Lockdown.

Industrial Visit % Achieved – 100%

DEPARTMENT OF MICROBIOLOGY

Objective (as stated in Proposal)

Project Work – as stated in Proposal

1. Isolation of Micro organisms from the heritage sites.
2. Isolation of Micro organisms from the Ganga Belt..

Project Work Undertaken

During the 3 Years tenure Undergraduate Research Projects were undertaken. These projects were supervised by the faculty members and peer reviewed by externals. The students were asked to give presentation of their research projects. This enhanced presentation skills and inculcate research temperament in the students. The list of the Research Projects are given below:-

<u>DBT Projects for the year 2018-19</u>		
S. No.	Name of the Project	Name of Supervisor
1.	Isolation, identification and characterization of Coliforms from Ganga Water.	Dr. Jaya Philip
2.	Isolation of the microorganisms associated with Proteolytic activity	Dr. Nidhi Rastogi
3.	Tissue culture, phytochemical screening, and evaluation of antibacterial activity of <i>Glycyrrhiza glabra</i> .	Dr. Arti Kumari
<u>DBT Projects for the year 2019-20</u>		
S. No.	Name of the Project	Name of Supervisor
1.	Isolation and identification of microorganisms under fingernails	Dr. Jaya Philip
2.	Isolation and characterization of PGPR and their growth on different pH	Dr. Preeti Swarupa
3.	Evaluation of anti tyrosinase activity of Indian medicinal plants	Dr. Arti Kumari
4.	Antibiotic sensitivity of bacteria isolated from <i>Psidium guajava</i>	Dr. Niti Yashvardhini

M. Rashmi
Principal 25/6/21
Patna Women's College
Autonomous
Patna University
Bailey Road, Patna - 1

46

Adva
Coordinator 25-6-21
Star College Scheme
Patna Women's College
Bailey Road, Patna-1

5.	Isolation and Screening of L- Asparaginase producing bacteria from soil	Dr. Shilpi Kiran
<u>DBT Projects for the year 2020-21</u>		
S. No.	Name of the Project	Name of Supervisor
1.	Isolation, characterization and identification of phytopathogenic fungi from plants.	Dr. Jaya Philip
2.	Assessment of bacterial load of some fresh and canned fruit juices in Patna.	Dr. Niti Yashvardhini
3.	Characterization of bacterial diversity of vegetables from different markets of Patna	Dr. Preeti Swarupa
4.	Prevalence and antimicrobial resistance pattern of methicillin resistance <i>Staphylococcus aureus</i> strains isolated from clinical specimens.	Dr. Arti Kumari
5.	Antibiotics resistance in <i>E. coli</i> isolated from UTI patients	Dr. Shilpi Kiran

Project Work % Achieved – 100%

Summer Training - as stated in Proposal

Isolation of Potential micro organisms from the archaeological sites.

Summer Training % Achieved – 100%

Industrial Training - as stated in Proposal

1. Sudha Dairy and Hindustan Coca – Cola Beverages Pvt.
2. Research Lab visit (Mahavir Cancer Sansthan, AIIMS Patna).
3. To visit Plant Tissue culture labs and Mushroom production lab around Patna

Industrial Visit Undertaken

- Working of the plant and Analysis of quality at Sudha Dairy, Patna
- Green audit, soil analysis at Botanical Garden, Patna

Industrial Visit % Achieved – 100%

M. Rashmi 25/6/21
Dr. Sister M. Rashmi A.C.

Principal
Patna Women's College
 Autonomous
 Patna University
 Bailey Road, Patna - 1

Aprajita Krishna 25-6-21
Dr. Aprajita Krishna
Coordinator
Star College Scheme
Patna Women's College
 Bailey Road, Patna-1