

EXPERIENTIAL LEARNING

DEPARTMENT OF BOTANY

Visit to Mega Technology Expo in India International Science Festival Organized at MANIT

Date: 22/01/23



Visit to International van mela

Date: 23/12/22



DEPARTMENT OF BIOTECHNOLOGY

Industrial visit to 'Forte Caps', Govindpura, Bhopal

28/12/22



Industrial visit to ‘Mushroom House’ Khajuri Kalan, Bhopal

Date: 05/02/23.



DEPARTMENT OF CHEMISTRY

Industrial Visit to IISER

Date: 24/11/22



Central Chronicle Bhopal,

Career College students taken on education tour

Bhopal: Research means, seeing what everyone else has seen and thinking what no one else has thought. To inculcate this spirit among the life science students, the Department of Chemistry, Career College at IISER, Bhopal were taken on an educational tour in which they visited the CIF (Central Instrumentation Facility) and thoroughly understood the



principles, working and utility of advanced instruments like NMR, GC-MS, XRD, SEM etc. in science research. Analysts explained about the importance of science especially chemistry in daily life and for the development of the country. He emphasized on choosing science research for a bright future. Students cleared all their doubts and got benefited from the tour And inspired to do research for the perfection of education.

Water Body Cleaning drive has been organized at Kerwa Dam

Date: 09/02/23



'कैरियर कॉलेज का सफाई अभियान'

आदिति की कलम भोपाल

भोपाल 10 फरवरी! केरवा बांध में रसायन विज्ञान विभाग, पुस्तकालय एवं सूचना विज्ञान विभाग, वाणिज्य एवं प्रबंधन विभाग द्वारा कैरियर कॉलेज भोपाल की पनबोटी एवं एनएसएस इकाई के सक्रिय सहयोग से जल निकाय सफाई अभियान का आयोजन किया गया है। इस गतिविधि का उद्देश्य जल निकायों के क्षरण को कम करने और स्वच्छता बनाए रखने के द्वारा इसके आसपास की सुंदरता को बहाल करने के लिए लोगों को जागरूक करना था। छात्रों ने आस-पास के इलाकों से लगभग 50 किलोग्राम कचरा एकत्र किया और कूड़ेदान में डाल दिया। स्वच्छ भारत मिशन के तहत लगभग 44 छात्रों और संकाय सदस्यों ने स्वच्छता से सफाई गतिविधि में भाग लिया।



DEPARTMENT OF COMMERCE AND MANAGEMENT

Bhopal Sahakari Dugdh Sangh

Date:05/12/23



DEPARTMENT OF COMPUTER SCIENCE

Visit to ATAL Incubation Centre, Mandideep, Bhopal, M.P.

Date: 14/11/22



“कैरियर कॉलेज की विद्यार्थियों का शैक्षणिक भ्रमण” कर जानकारी ली

दैनिक कारखाने का सफर।
भोपाल

कैरियर कॉलेज के कंप्यूटर विभाग द्वारा ऑटोक सोलोनक्स लिमिटेड मंडीदीप इंडस्ट्रीयल का शैक्षणिक भ्रमण विद्यार्थियों को कराया गया जिसके अंतर्गत लिमिटेड के इंजीनियर हिमंशू गुप्ता एवं निनाकी भट्टाचार्य द्वारा वहां वहां बनने वाले प्रोजेक्ट जैसे एच पी टी 7090 आकार का प्लंब विद्यार्थी वर्कशॉप के बारे में विस्तार से जानकारी प्रदान की इसके अलावा विद्यार्थियों को अटल इनक्यूबेशन सेंटर एवं उसकी गतिविधि के बारे में जानकारी देते हुए बताया कि वह अपने आइडिया को किस तरह से एक बिजनेस प्लान में कन्वर्ट कर सकते हैं यह बताया कि यदि उनके पास कोई आइडिया है तो बिजनेस में कन्वर्ट करने के लिए अटल इनक्यूबेशन सेंटर उनकी किस तरह से मदद कर सकते हैं और साथ ही विद्यार्थियों को बताया कि कि जो क्रिटिकल नॉलेज है उसको प्रैक्टिकल यूज इंडस्ट्री में कैसे होता है। शैक्षणिक भ्रमण में बीएससी के 30 विद्यार्थियों सहित डॉक्टर निखिता परसाई, डॉ माधुरी श्रौर एवं डॉ नीना गुप्ता ने सहभागिता की



Visit to Vippy Industries Limited, Dewas M.P.

Date: 17/12/22



“Science Fiesta” at Regional Science Centre, Bhopal, M.P.

Date: 10/01/23 to 12/01/23



DEPARTMENT OF HUMANITIES

Visit to State Museum

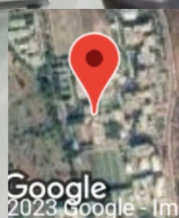
Date: 12/10/22



DEPARTMENT OF LIBRARY AND INFORMATION SCIENCE

Visit to IISER, Bhopal

Date: 08/02/23



Bhopal, Madhya Pradesh, India
77PF+WWC, IISER Bhopal Rd, Bhopal, Madhya Pradesh 462066, India
Lat 23.287394°
Long 77.274641°
08/02/23 01:16 PM GMT +05:30

GPS Map Camera

DEPARTMENT OF MICROBIOLOGY

Jawaharlal Nehru Cancer Hospital, Microbiology Department Visit

Date:10/10/22



DEPARTMENT OF PATHOLOGY

Visit to Gyaraspur for Free Health Checkup Camp

Date:05/02/23



Visit to Harda for Free Health Checkup Camp

Date: 04/04/23



Visit to GST Office Bhopal for Free Health Checkup Camp

Date: 13/04/23



DEPARTMENT OF PHYSIOTHERAPY

IISER: Students visited Physiotherapy Department of IISER, Bhopal

Date: 17/12/23



Pahal Rehabilitation Centre: Students observed and interacted with specially abled children.

Date: 24/12/22



DEPARTMENT OF ZOOLOGY

A Visit to Central institutes of Fisheries Education Powarkheda, Narmadapuram

Date: 17/09/22



PARTICIPATIVE LEARNING

DEPARTMENT OF BOTANY

Workshop on Plant Tissue Culture

Date: 22/12/22

The poster features the Career College logo (A+ NAAC, 53 Years of Academic Excellence) and the Department of Botany. It includes the Azadi Ka Amrit Mahotsav logo and the Institution's Innovation Council logo. A portrait of Dr. Shagufta Khan is shown. The event details are: 22nd Dec 2022, 11:30 a.m., Room No. - 26, Career College, Bhopal.

A+ CAREER COLLEGE 53 YEARS OF ACADEMIC EXCELLENCE

75 Azadi Ka Amrit Mahotsav

Department of Botany organizes **WORKSHOP** on **Plant Tissue Culture**

Dr. Shagufta Khan
Director
Grow Tip Biotech, Bhopal

22nd Dec 2022
11:30 a.m.

Room No. - 26
Career College, Bhopal

Two women are standing in front of a large screen displaying the workshop poster. One woman is holding a small potted plant. The screen also shows a Google map overlay with location details for Bhopal, Madhya Pradesh, India.

Bhopal, Madhya Pradesh, India
6, Saket Nagar, Habib Ganj, Bhopal, Madhya Pradesh
462016, India
Lat 23.230918°
Long 77.451147°
22/12/22 12:06 PM GMT +05:30

A woman is standing at the front of a classroom, presenting to a group of students. A large screen behind her displays a slide titled "PLANT TISSUE CULTURE" with text describing the technique. A Google map overlay is visible in the bottom left corner.

PLANT TISSUE CULTURE

TISSUE CULTURE IS A BIO-TECHNIQUE OF IN VITRO PLANT PRODUCTION FROM ANY PART OF A MATURE PLANT (CELL) ON ARTIFICIAL NUTRITIVE MEDIUM UNDER STERILE AND CONTROLLED ENVIRONMENTAL CONDITIONS.

TECHNIQUE IS USED FOR THE PLANT PROPAGATION AND IMPOSSIBLE TO REPLICATE THROUGH CONVENTIONAL METHODS. TECHNIQUE CAN BE APPLIED TO CLONING, PRODUCTION OF PLANT PRODUCTION AND TO BEGONIA, ORCHID, AND OTHER UNDER STERILE AND CONTROLLED ENVIRONMENTAL CONDITIONS.

Bhopal, Madhya Pradesh, India
6, Saket Nagar, Habib Ganj, Bhopal, Madhya Pradesh
462016, India
Lat 23.231015°
Long 77.451008°
22/12/22 12:23 PM GMT +05:30

Workshop on Research Writing- Date:14/01/23




Poster Competition on Plant Based Industries

Date: 10/11/22


FLOWER BASED INDUSTRIES

PERFUME PRODUCTS INDUSTRY




Perfume is a mixture of aromatic substances dissolved in a liquid. It is used for fragrance and is a part of the cosmetics industry. The raw materials for perfume are essential oils, absolutes, and synthetic fragrances.

RAW MATERIAL FOR




The raw material for perfume is essential oils, which are extracted from flowers and other plants. These oils are then used to create various scents and fragrances.


FLORICULTURE IN INDIA




FERMENTATION (MAHUA)



COLOR INDUSTRY



FOOD AND HOLI COLORS




NAME: **DR. JAVISHWAKARMA**
 CLASS: **BSC II YEAR** / MICROBIOLOGY
 SUBJECT: **BOTANY**

CAREER COLLEGE BHOPAL

BOTANY BSC II YEAR

JAGGERY INDUSTRIES

Jaggery is a natural sweetener made from the juice of sugarcane. It is a healthier alternative to refined sugar and is widely used in Indian cuisine.



Jaggery v/s Sugar



The process of manufacture of Jaggery is as follows:

- EXTRACTION OF JUICE
- CLEARING OF JUICE by filtration / sedimentation
- Evaporation -> thickening / concentration
- CONCENTRATION & CRYSTALLISATION
- SEPARATION OF CRYSTALS
- REFINING OF SUGAR
- SEPARATION OF SUGAR MELASSES

The significant difference between sugar and jaggery is the evaporation process. In the case of refined sugar, the juice is evaporated to a high concentration, while in the case of jaggery, the juice is evaporated to a lower concentration, resulting in a more natural and healthier product.

SUGAR INDUSTRIES

The Sugar Industry is a major industry in India. It involves the extraction and refining of sugar from sugarcane. The process is highly mechanized and involves several steps, including extraction, clarification, evaporation, and crystallization.

OTHER PARTS OF PLANTS BASED INDUSTRIES

By: **Kunal Mishra**
 Class: **II Microbiology**
 Roll No: **202101010101010101**

Short Term Training Program on Tools and Techniques for Monitoring Environmental Pollution

Date: 30/01/23 to 7/02/23



Short Term Online Quiz Competition on World Cancer Day

Date: 4/02/23

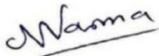
Nutrition Society of India, Bhopal Chapter



Certificate of Participation

This is to certify that **Omjay Manikpuri** has successfully passed an online quiz competition on World Cancer day, 4th February, 2023


Co-ordinator
Ms. Tina Gourkhede


Secretary
Dr. Nilima Varma


Convenor
Dr. Preeti Chandurkar

Made for free with Certify'em



BELL INSTITUTE OF HOTEL MANAGEMENT & CATERING TECHNOLOGY

(Approved by Alagappa University, Karaikudi)
Sivakasi - 626 141.

Website : www.bellihm.in

INTERNATIONAL LEVEL VIRTUAL QUIZ CONTEST ON "OFFICE AUTOMATION"

CERTIFICATE OF APPRECIATION

Proudly presented to

Mr. Omjay manikpuri

for participating and completing International Level Virtual Quiz Contest on the topic "Office Automation" and Scored **6 / 10** organized by Department of Computer Science, Bell Institute of Hotel Management & Catering Technology, Sivakasi on 03/12/2022.

Sivakasi
03/12/2022




PRINCIPAL
Prof. R. Leo Robert

DEPARTMENT OF BIOTECHNOLOGY

Two Days National Workshop on 3D Printing

Date: 18/10/22-19/10/22



Bhopal, MP, India
Shakti Nagar, Bhopal, 462022, MP, India
Lat 23.231075, Long 77.451084
10/18/2022 11:55 GMT+05:30



“कैरियर कॉलेज में 3डी प्रिंटिंग पर दो दिवसीय राष्ट्रीय कार्यशाला” का आयोजन

द्विदिना कार्यशाला का सफल आयोजन।

'कैरियर कॉलेज में 3डी प्रिंटिंग पर दो दिवसीय राष्ट्रीय कार्यशाला' का आयोजन

ऑडिटोरियम कालम भोपाल 20 अक्टूबर 1 ई-यूवा केन्द्र (आयोटेक्नोलॉजी इंस्टीट्यूट रिसर्च अक्सरेट्स कार्डिसल), जीव प्रौद्योगिकी और जीव रसायन विभाग, काँरिअर कॉलेज, भोपाल ने एरुपिन्स अनालिस्टिक्स, दिल्ली और बुद्ध के साथ सितंबर - 3 डी प्रिंटिंग पर दो दिवसीय राष्ट्रीय कार्यशाला का आयोजन किया।

डॉ. चरणजीत कौर ने कार्यशाला का शुभारंभ किया। इस आयोजन में विभिन्न संकाय और कॉलेज के विद्यार्थियों और ई-यूवा केन्द्र में भाग लिया और लाभान्वित हुए। कार्यक्रम के मुख्य वक्ता डॉ. उदय चाम्बला (आईपीआर विशेषज्ञ एवं संस्थापक, एरुपिन्स अनालिस्टिक्स, नई दिल्ली) ने विद्यार्थियों को स्टेरोजागर के लिए प्रेरकबोध करते हुए कार्यक्रम परिचय में भागीदारी और उसे साकार करने के लिए प्रोत्साहन प्रदान की। इस कार्यक्रम का संयोजन डॉ. प्रीति चाम्बला (समान्यक, ई-यूवा केन्द्र, भोपाल) द्वारा तथा मेजबानी सुश्री मेधा सुबोलीया द्वारा किया गया। सुश्री मेधा ने कार्यशाला के लिए की व्यवस्था की और बताया कि कैसे कैरियर कॉलेज, भोपाल इसके कार्यक्रम को संयोजित करेगी। कार्यशाला के दिग्दर्शन में डॉ. अजय मंडी (सीएचए एसआर) और डॉ. अजय मंडी (सीएचए एसआर) ने कार्यशाला के सफल आयोजन में अग्रणी भूमिका निभाई।

इसकी विस्तार से जानकारी प्रदान की। इस कार्यक्रम का आयोजन डॉ. प्रीति चाम्बला (समान्यक, ई-यूवा केन्द्र, भोपाल) द्वारा तथा मेजबानी सुश्री मेधा सुबोलीया द्वारा किया गया। सुश्री मेधा ने कार्यशाला के लिए की व्यवस्था की और बताया कि कैसे कैरियर कॉलेज, भोपाल प्रत्येक वर्षोदित छात्रों के सर्वांगीण विकास में सहायता करता है। कार्यशाला के दिग्दर्शन का श्री अमित पांडे (सीनियर एग्जिक्टिव और पार्टनर, सीएमएस कॉन्सल्टिंग प्राइवेट लिमिटेड) ने वार्ता 3डी प्रिंटिंग पर प्रकाश डाला। कार्यशाला में डॉ. अजय मंडी और डॉ. अजय मंडी मुख्य रूप से शामिल रहे।

One Day Hands on Workshop on Next Generation Insta NX® Mag16 Automated Nucleic Acid Extraction System and PCR

Date: 05/05/23

Bhopal, Madhya Pradesh, India
6, Saket Nagar, Habib Ganj, Bhopal, Madhya Pradesh
462016, India
Lat 23.231185°
Long 77.451017°
05/05/23 02:01 PM GMT +05:30

Bhopal, Madhya Pradesh, India
6, Saket Nagar, Habib Ganj, Bhopal, Madhya Pradesh
462016, India
Lat 23.231058°
Long 77.450981°
05/05/23 11:59 AM GMT +05:30

DEPARTMENT OF CHEMISTRY

Workshop on Good Laboratory Practices (GLP)

Date: 7/11/11 to 14/11/22

CAREER COLLEGE 53 YEARS OF ACADEMIC EXCELLENCE
Govindpura, BHEL, Bhopal (M.P.) India

75 Azadi Ka Amrit Mahotsav

Dept. of Chemistry organizes

WORKSHOP on Good Laboratory Practices (GLP)
7th to 14th Nov 2022
Expert Talk
Resource Person

Tasneem Ahmed
Director
Blossom Pharma Biotech Institute and Research Centre, Bhopal

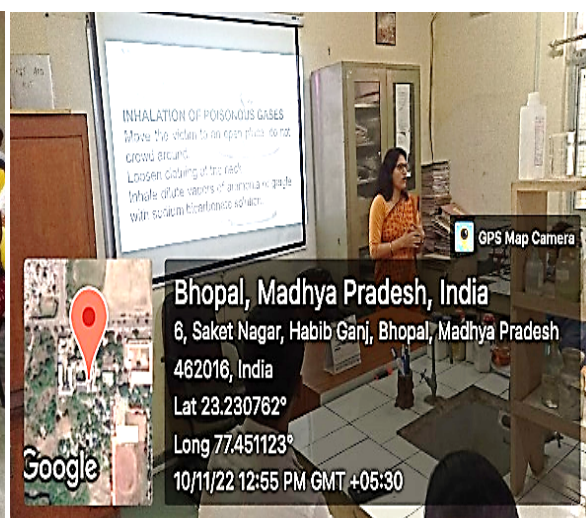
14th Oct 2022 01:00 P.M. Career College, Bhopal

कैरियर कॉलेज में जीएलपी पर सात दिवसीय कार्यशाला



दैनिक कारखाने का सफर। भोपाल

कैरियर कॉलेज के रसायन शास्त्र विभाग द्वारा प्रयोगशाला शिफ्टाचार का चलन करने हेतु अपनी प्रयोगशाला पद्धतियों (जीएलपी) पर एक सप्ताह की कार्यशाला का आयोजन किया। पूरे सप्ताह के दौरान, विभाग के संकेत सहायकों ने गहरी अंतर्दृष्टि दी और दुर्घटनाओं को रोकने के लिए जीएलपी पर हर संभव ज्ञान प्रदान किया। छात्रों को कार्यात्मक दुर्घटनाओं और रोकथाम के तरीकों के बारे में विस्तार से जानकारी प्रदान प्रदान की गई। प्रयोगशाला जल्दबाजी से निपटें उन्हें कुछ प्रयोगशाला अभ्यास सही गये हैं। कार्यक्रम के अंतर्गत पर विद्यार्थियों को सुरक्षा के लिए जीएलपी का चलन करने हेतु जागरूक किया गया। कार्यशाला का उद्देश्य जीएलपी पैदा करना और सुरक्षा के साथ काम करने के लिए छात्रों को प्रेरित करना था। कैरियर कॉलेज के विभिन्न विभागों के करीब 100 विद्यार्थियों ने उत्साहपूर्वक भाग लिया।



Interactive Workshop cum Discussion (Swacch and Udaan: Freedom of Liberty and Security)

Date: 10/12/22

A+ CAREER COLLEGE **53**
Govindpura, BHEL, Bhopal (M.P.) India
YEARS OF ACADEMIC EXCELLENCE

75th Azadi Ka Amrit Mahotsav

Department of Chemistry
in collaboration with
Sarokar NGO
organises

Interactive Workshop cum Discussion
on
Swacchhand Udaan: Freedom of Liberty and Security

Resource Person



Ms Kumud Singh
Secretary
Sarokar (NGO)

10th Dec 2022 12:00 P.M. Career College, Bhopal

सामुदायिक बुराइयों के खिलाफ संवेदनशीलता कार्यक्रम



आदिति की कलम भोपाल करियर कॉलेज के रसायन शास्त्र विभाग ने स्पेस (सामुदायिक बुराइयों के खिलाफ संवेदनशीलता कार्यक्रम के तहत एकता नगर बस्ती में एक इंटरैक्टिव कार्यशाला सह चर्चा का आयोजन किया। इस अवसर पर सरोकार एनजीओ की संस्थापक और सचिव सुश्री कुमुद सिंह ने महिला निवासियों को उनके कल्याण के लिए अधिकारों के बारे में खूबसूरती से समझाया और एक दूसरे के बीच शिक्षा के लिए जागरूकता को बढ़ावा देने का वचन लिया। उन्होंने एक बेहतर समाज के लिए मर्यादा बनाए रखते हुए स्वतंत्रता के साथ सुरक्षित होने पर जोर दिया। इस अवसर पर बस्ती की महिलाओं ने महिला स्वच्छता को समर्पित एक गीत प्रस्तुत किया गया और उन्होंने अपने कर्तव्यों का उचित ध्यान रखने की शपथ ली।



Short Term Certificate Course cum Workshop on, “Food Adulteration and Testing”

Date: 12/12/22-17/12/22

“खाद्य अपमिश्रण और परीक्षण पर छह दिवसीय वर्कशॉप”

दैनिक कारखाने का सफर। भोपाल

करियर कॉलेज के रसायन विज्ञान विभाग द्वारा छह दिवसीय “खाद्य अपमिश्रण और परीक्षण” पर शॉर्ट टर्म सर्टिफिकेट कोर्स का आयोजन किया गया। कार्यक्रम की शुरुआत खाद्य सुरक्षा प्रशासन, भोपाल के विशेषज्ञों के अतिथि व्याख्यान सह प्रदर्शन से हुई। इसके साथ ही विषय से संबंधित कई आयोजन हुए जिसके

तहत विद्यार्थियों ने दूध और दूध के उत्पादों; घी, तेल और मक्खन, मसाले; अनाज; नमक; जैसे विभिन्न नमूनों में मिलावट का परीक्षण किया। अंतिम दिन एकता नगर बस्ती के निवासियों को भोजन में मिलावट के बारे में जागरूकता पैदा करने के लिए वहां के रहवासियों को मिलावट का प्रदर्शन कर ऐसे खाद्य सामग्रियों के उपयोग से स्वास्थ्य पर होने वाले दुष्परिणामों के बारे में ISR गतिविधि के माध्यम से

विस्तृत जानकारी प्रदान की! गतिविधि के परिणाम की जांच के लिए एक मूल्यांकन परीक्षण भी आयोजित किया गया है। छात्रों ने बहुत सकारात्मक प्रतिक्रिया दी और सीखने के लिए अत्यधिक प्रोत्साहित हुए। ISR गतिविधि के साथ कार्यशाला का समापन हुआ! प्राचार्य डॉ. चरनजीत कौर ने विभाग को इस सफल आयोजन के लिए बधाई देते हुए विद्यार्थियों को आशीर्वाद दिया और प्रमाण पत्र वितरित किए।

A+ CAREER COLLEGE 53 YEARS OF LEARNING EXCELLENCE
Govindpura, BHEL, Bhopal (M.P.) India

Department of Chemistry organises
Short Term Certificate Course cum Workshop on Food Adulteration & Testing

Resource Persons

Mr. Devendra Kumar Dubey
Sr Food Safety Officer
Food Safety Administration, Bhopal

Mrs. Sadhana Saxena
Food Safety Officer
Food Safety Administration, Bhopal

12th -17th Dec 2022 11:00 A.M. Career College, Bhopal



Poster Competition to commemorate Birthday of Marie Curie

Date:07/11/22

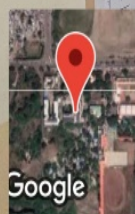
जन्म दिवस के अवसर पर पोस्टर प्रतियोगिता



अदिति की कलम भोपाल केरियर कॉलेज के रसायन शास्त्र विभाग द्वारा रसायन शास्त्री एवं विख्यात भौतिक शास्त्री मैरी क्यूरी के जन्म दिवस के अवसर पर पोस्टर प्रतियोगिता का आयोजन किया। लगभग 30 विधार्थियों ने अपनी रचनात्मकता दिखाते हुए रसायन शास्त्र के विभिन्न प्रसंगों पर पोस्टरों का निर्माण



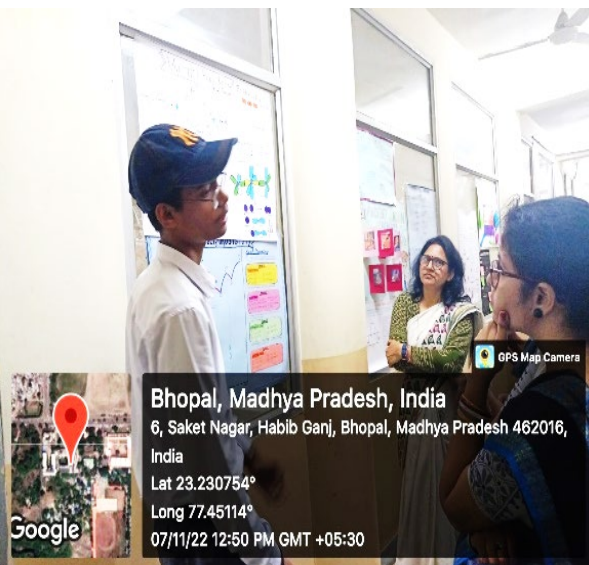
करते हुए वैज्ञानिक क्यूरी के रसायन शास्त्र में योगदान पर प्रकाश डाला। शानदार प्रदर्शन के साथ जहाँ छात्रों में आत्मविश्वास विकसित हुआ वहीं वे अन्य छात्रों के लिए प्रेरणास्रोत भी साबित हुए। इस अवसर पर विभागाध्यक्ष डॉ सुपर्णा घोष ने कहा कि मैरी क्यूरी ने 18 98 में पोलोनियम और रेडियम की खोज की जो कि चिकित्सा विज्ञान और रोगों के उपचार में एक महत्वपूर्ण क्रांतिकारी खोज साबित हुई !



Bhopal, Madhya Pradesh, India
6, Saket Nagar, Habib Ganj, Bhopal, Madhya Pradesh 462016, India
Lat 23.230754°
Long 77.45114°
07/11/22 12:54 PM GMT +05:30



Bhopal, Madhya Pradesh, India
6, Saket Nagar, Habib Ganj, Bhopal, Madhya Pradesh 462016, India
Lat 23.230752°
Long 77.451137°
07/11/22 12:58 PM GMT +05:30



Bhopal, Madhya Pradesh, India
6, Saket Nagar, Habib Ganj, Bhopal, Madhya Pradesh 462016, India
Lat 23.230754°
Long 77.45114°
07/11/22 12:50 PM GMT +05:30

National level online quiz competition and videos on innovative ideas to commemorate Birthday of Former President and Missile Man

Date: 12/10/22



CAREER COLLEGE 53 YEARS OF EXCELLENCE
Govindpura, BHEL, Bhopal (M.P.) India

Department of Chemistry organizes
Birthday of Former President and Missile Man
In association with
Association of Chemistry Teachers (ACT) TIFR@Mumbai

Competitions

- Quiz on Scientific Achievement and Works of Missile Man (APJ Abdul Kalam)
- Short videos on best innovative practices/ innovation, innovators, successful start-ups and incubation facilities or innovative ideas

Coordinators
Dr. Shweta Sharma : 90398 16800
Dr. Ruchi Dubey Sharma : 94244 12117

15th Oct 2022 12: 00 a.m.

Submit entries before 10th Oct 2022 at Chemistry Department


“कैरियर कॉलेज में राष्ट्रीय नवाचार दिवस”



Bhopal, Madhya Pradesh, India
6, Saket Nagar, Habib Ganj, Bhopal, Madhya Pradesh
462016, India
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Long 77.451127°
15/10/22 12:35 PM GMT +05:30

International Ozone Layer Preservation Day Guest Lecture and Different Competitions (Exhibit competition, logo design competition, poster competition, report writing competition)

Date: 17 Sep 2022



CAREER COLLEGE 53 YEARS OF EXCELLENCE
Govindpura, BHEL, Bhopal (M.P.) India

Department of Chemistry celebrates

Ozone Layer Preservation Day-22

Competitions

- Exhibit competition on 'Let the world free from CFCs': (Exhibition depicting CFC products and their substitute)
- Logo design competition on "CFC free (Ozone Friendly) products"
- Poster making competition on, "Scene of Earth without Ozone Layer"
- Report writing competition on, "Montreal Protocol has saved the earth from dreaded CFC"

Note: Entries are restricted to single participant. Best in each category will be awarded.

16th to 22nd Sep 2022 12: 00 a.m.

Register before 10th Sep 2022 at Chemistry Department



CAREER COLLEGE 53 YEARS OF EXCELLENCE




Department of Chemistry organizes
GUEST LECTURE
on
Ozone Layer Preservation

17th Sep 2022
11:00 AM



Dr. Vipin Vyas
Head
Applied Aquaculture Department
Barkatullah University, Bhopal

Auditorium
Career College, Bhopal



Bhopal, Madhya Pradesh, India
Career-College Bhopal 6, Saket Nagar, Habib Ganj,
Bhopal, Madhya Pradesh 462016, India
Lat 23.230853°
Long 77.45096°
17/09/22 01:00 PM GMT +05:30

Bhopal, Madhya Pradesh, India
Career College Bhopal 6, Saket Nagar, Habib Ganj,
Bhopal, Madhya Pradesh 462016, India
Lat 23.230853°
Long 77.45096°
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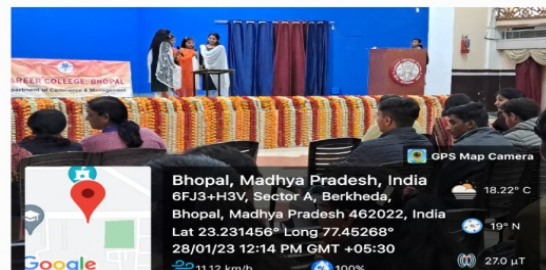
DEPARTMENT OF COMMERCE AND MANAGEMENT

Essay writing Competition

Eco-Gnash Work shop



INTER-DEPARTMENTAL PATRIOTIC SONG COMPETITION



DEPARTMENT OF COMPUTER SCIENCE

Workshop on Urja Saksharta Abhiyan

Date:01/08/22 to 06/09/22



कैरियर कॉलेज में छह दिवसीय “ऊर्जा साक्षरता अभियान (उषा) कार्यशाला”

दैनिक खबरद्वारा का सफर। भोपाल

आप अपने खाने से अपने कार्य क्षेत्र पर जाते हैं तो उसके स्थान पर अगर आप पब्लिक टूमिस्ट्रेट यह माइक्रोन से जाते तो ऐसा करने आप अपने ही बचत तो करेंगे ही साथ ही ऊर्जा का उपयोग ना कर उसका संरक्षण ही करेंगे। उक्त बात कैरियर कॉलेज की प्राचार्य डॉक्टर चरनजीत कौर ने ऊर्जा साक्षरता अभियान (उषा) कार्यशाला के अंतर्गत कही।

मध्य प्रदेश ऊर्जा विकास निगम लिमिटेड द्वारा चलाए जा रहे ऊर्जा साक्षरता अभियान का शुभारंभ महाविद्यालय के कंप्यूटर विभाग द्वारा 1 अगस्त को किया गया।

6 अगस्त तक चलने वाले इस 6 दिवसीय कार्यशाला में प्रतिदिन लगभग 103 प्रतिभागियों, “सोलार भूत ऑफ ड्रीडवा” के शिक्षक से नवाते हुए प्रोफेसर चेतन मिश्र कोलंबी द्वारा बनाए गए माइक्रोवेल में प्रोजेक्टर पर उन्हें सुरक्षित हैं स्पझले हैं फिर

विकल्पों का अंगवत्तन करनेवाले में भय ले रहे हैं। विद्यमान रहे प्रतिभागियों को ऊर्जा विकास निगम द्वारा प्रमाण पत्र भी विहीत किया जा रहे हैं। विभाग की विकासमय स्वयंसेवा सिखाया ऊर्जा साक्षरता अभियान (उषा) से विद्यार्थियों एवं फैकल्टी को जोड़ने का उद्देश्य ऊर्जा संरक्षण के सकारात्मक परिणाम देना है। उन्होंने कहा हमें कुशल कंप्यूटर प्रलेस्टेड लैब का उपयोग करना चाहिए क्योंकि इसमें 75% ऊर्जा को खपत को कम करने की क्षमता होती है और यह साधारण लैब से 10 गुना ज्यादा भी चलती है। इस कार्यशाला में विभाग की प्रोफेसर डॉ. स्वाति नामदेव और एकेडमिक डीन डॉ. संजीव गौर एवं प्रोफेसर ज्वाल्सना बन्सुन को द्वारा सुरक्षित

प्रतिभागियों के रजिस्ट्रेशन कर उन्हें समझे उपयोगित कराया जा रही है। प्राचार्य डॉक्टर चरनजीत कौर ने कहा कि हम शिक्षक से नवाते हुए प्रोफेसर चेतन मिश्र कोलंबी द्वारा बनाए गए माइक्रोवेल में प्रोजेक्टर पर उन्हें सुरक्षित हैं स्पझले हैं फिर

Workshop on “Design Thinking”

Date: 21/01/23



Workshop on “The role of IPR in Start-ups”

Date: 29-04-23 at 12:30 pm



“स्टार्टअप में आईपीआर की भूमिका” एवं “टूल्स एंड सॉफ्टवेयर फॉर रिसर्चर्स” विषय पर हुआ व्याख्यान

टीविएन कारखाने का सफ़र। भोपाल

कैम्पस कॉलेज के कंप्यूटर विभाग द्वारा “टूल एंड सॉफ्टवेयर एंड स्टार्टअप” पर अतिथि व्याख्यान आयोजित किया गया जिसमें एडिटर और ऑफिस सॉफ्टवेयर और डिजाइन के बारे में प्रस्तुत किया गया। प्रस्तुति में स्टार्टअप में आईपीआर की भूमिका पर प्रकाश डालते हुए कहा कि इससे चीजें आसानी से बनती हैं और इनके माध्यम से स्टार्टअप को सुरक्षित रख सकते हैं।

इन्होंने कहा कि जो स्टार्टअप इन टूल का उपयोग करे वह अपना बिज़नेस आसानी से बढ़ा सकता है और इसे सुरक्षित रख सकता है।

सभी को विचारना होगा “टूल एंड सॉफ्टवेयर” का उपयोग कैसे करना है और इसे सुरक्षित रखना है।

कैम्पस कॉलेज के कंप्यूटर विभाग पर प्रस्तुत किया गया कार्यक्रम अतिरिक्त अधिक जानकारी के लिए संपर्क करें।

कैम्पस कॉलेज के कंप्यूटर विभाग पर प्रस्तुत किया गया कार्यक्रम अतिरिक्त अधिक जानकारी के लिए संपर्क करें।

कैम्पस कॉलेज के कंप्यूटर विभाग पर प्रस्तुत किया गया कार्यक्रम अतिरिक्त अधिक जानकारी के लिए संपर्क करें।

Workshop on “Stepping into the future with L&T”

Date: 5th Dec.22 at 11:30 a.m.



Digital Delights Competition

Date: 4th Jan.23



Real Discord Competition

Date: 06/12/23 at 11:00 am.



REAL DISCORD

- + Each Student can either speak 'For' or 'Against'
- + Time to speak 3 min
- + Warning bell at 2:30 min
- + Final Bell at 3 min
- + Students who finish before 2 minute & 15 seconds or exceed 3min will be disqualified.

Date : 06-12-2022
Time : 11:00 a.m.
Venue : Auditorium
Cordinators : Mrs. Namrata Ganguly (8120029888)
Mrs. Jyotsna Kanungo



Extemporeel Competition

Date: 6th Dec. 22 at 1:00 pm .



EXTEMPOREEL

- + Instagram reel making contest.
- + Topic will be given on-spot.
- + Participants can go to any part of the college campus and create a reel with 45 minutes.
- + Submit the reel by sharing it on instagram and tag CCB.

Date : 06-12-2022
Time : 01:00 p.m.
Venue : Room No. 25
Cordinators : Dr. Ruchi Dubey Sharma
Mr. Sagar (9644544614)



Viral Video Competition

Date: 06/12/22 at 1:00 pm.



VIRAL VIDEO

- + The duration of their video/ short film should not be more than 5 minute.
- + Any stock footage you use in the video must be a public domain video clip.
- + Upload video to Google drive or Dropbox and submit the uploaded link.
- + Topic : Internet Myth vs Reality

Prerequisites

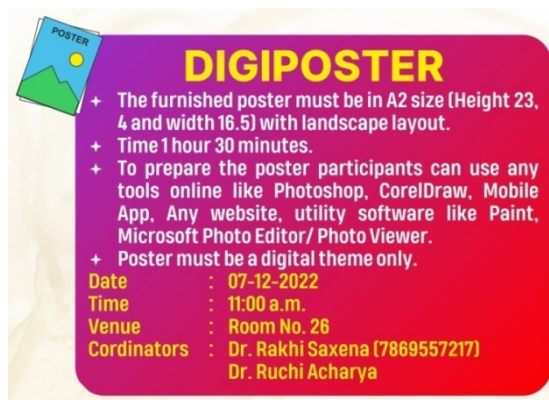
- + Participants to be present with the team.

Date : 06-12-2022
Time : 01:00 pm
Venue : Auditorium
Cordinators : Dr. Sanjeev Gour (9826761991)
Mr. Rajneesh Tiwari



Digiposter & Linecraft Competition

Date:07/12/22



DIGIPOSTER


- + The furnished poster must be in A2 size (Height 23, 4 and width 16.5) with landscape layout.
- + Time 1 hour 30 minutes.
- + To prepare the poster participants can use any tools online like Photoshop, CorelDraw, Mobile App, Any website, utility software like Paint, Microsoft Photo Editor/ Photo Viewer.
- + Poster must be a digital theme only.

Date : 07-12-2022
Time : 11:00 a.m.
Venue : Room No. 26
Cordinators : Dr. Rakhi Saxena (7869557217)
Dr. Ruchi Acharya



Line Craft Competition

Date: 07/12/22



LINECRAFT

- + Stick figure animation contest.
- + Topic will be given on-spot.
- + Participants can use any software.
- + Any photo/ image/ graphic they use must be a public domain image.
- + They must submit their work within 1.5 hours.

Prerequisites.

- + Participants are required to bring their laptops.

Date : 07-12-2022
Time : 11:00 a.m.
Venue : Room No. 25
Cordinators : Dr. Romsha Sharma (9826635787)
Ms. Shubhra Singh



Principals' Round Table on Digital Discipline & Cyber Safety

Date: 08/10/22



DEPARTMENT OF HUMANITIES

Students of Humanities Department participated in quiz competition

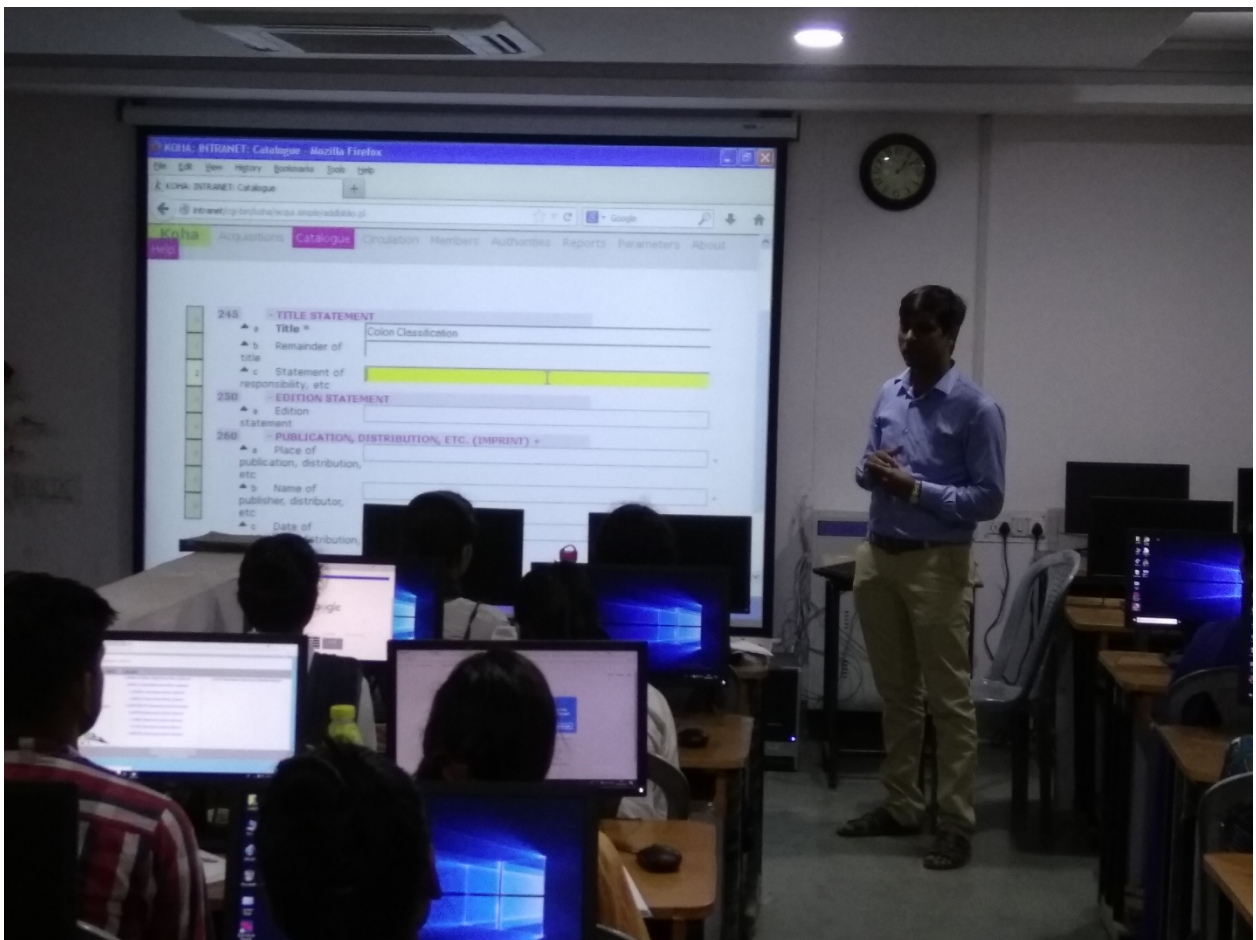
Date: 18/11/22



DEPARTMENT OF LIBRARY AND INFORMATION SCIENCE

Short Term Certificate Course cum Hands on Training on Open Source Library Software's (KOHA & D-Space)

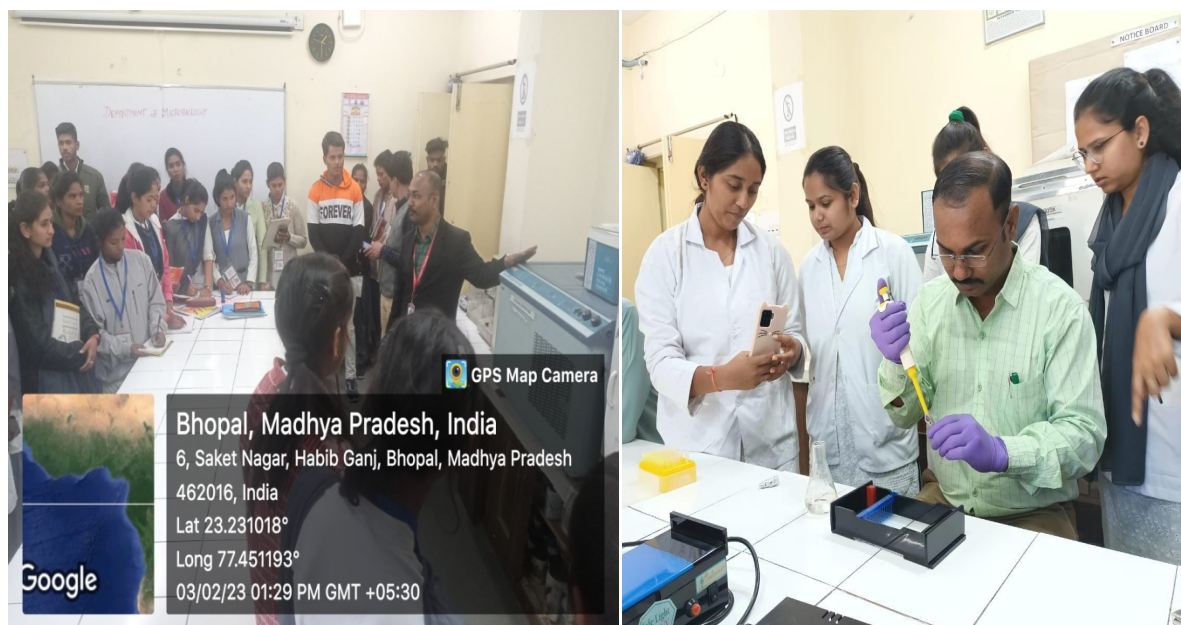
Date: 1st May to 13th May, 2023



DEPARTMENT OF MICROBIOLOGY

Work shop on DNA Analysis

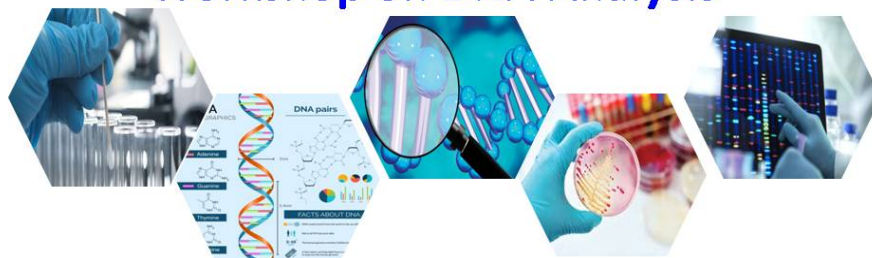
Date: 03/02/2023



DEPARTMENT OF MICROBIOLOGY
Organizes



Workshop on DNA Analysis



Date:03-02-2023

Time:1 pm

Venue: Microbiology Lab

DEPARTMENT OF PATHOLOGY

Workshop on CPR on 03/01/23



Poster Competition on World Heart Day

Date:28/09/2023

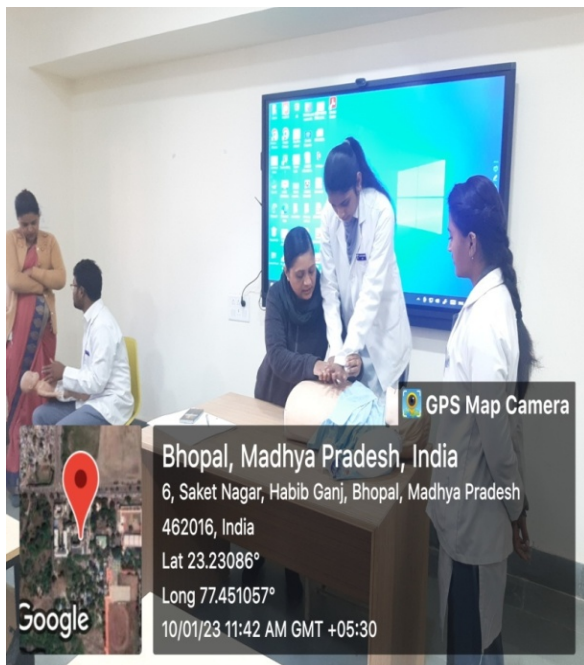
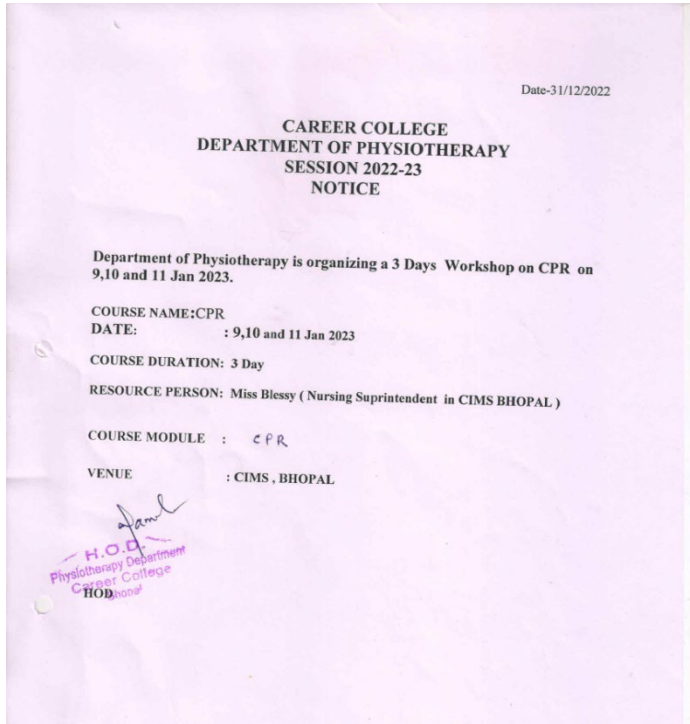




DEPARTMENT OF PHYSIOTHERAPY

Cardiopulmonary Resuscitation: Students attended the workshop on cardiopulmonary Resuscitation.

Date: 10/01/2023



DEPARTMENT OF ZOOLOGY

Quiz Competition

Date: 18/12/23



PROBLEM

SOLVING

LEARNING

DEPARTMENT OF BOTANY

Internship

BASIC TECHNIQUE OF IN VITRO MICROPROPAGATION THROUGH PLANT TISSUE CULTURE TECHNIQUES



**A
REPORT ON**

INTERNSHIP

**In Partial Fulfillment of
MASTER DEGREE IN BOTANY
FROM
GROW TIPS BIOTECH, BHOPAL (M.P.)**

UNDER THE GUIDANCE OF

Dr. (Mrs.) Peenu Mahendra Joshi

**SUBMITTED BY
MUSKAN JAISWAL**

**M.Sc. BOTANY
IV SEMESTER
DEPARTMENT OF BOTANY
CAREER COLLEGE, BHOPAL**

**STUDIES ON CHARACTERISATION AND
PRODUCTION OF RHIZOBIUM *LEGUMINOSARUM*
BIOFERTILIZER**

AN

**INTERNSHIP REPORT
SUBMITTED BY**

SANOVAR QURESHI

M. Sc. BOTANY, IV Semester (22-23)

FROM

GROW TIPS BIOTECH, BHOPAL (M.P.)

**UNDER THE GUIDANCE OF
DR. (MRS.) SHAGUFTA KHAN**

DIRECTOR, GROW TIPS BIOTECH

**SUBMITTED TO
DEPARTMENT OF BOTANY
CAREER COLLEGE BHOPAL**



GROWTIPS BIOTECH

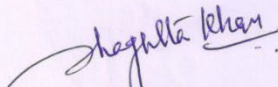
Centre for Research & Application in Plant Tissue Culture

AN ORGANISATION OF A.T.W.S

255, Pipaliya near AIIMS, Saket Nagar Bhopal (M.P)

CERTIFICATE

This is to certify that Ms. Khusbu Singh Rajput student of M. Sc. Botany Department of Botany, from Career college Bhopal, hereby declare that the work presented in the project entitled, 'Studies on Characterization and Production of Rhizobium *Leguminosarum* Biofertilizer,' is an original piece of work carried out by her, under my guidance. It has reached the standard fulfilling the requirement of the regulation relating to the fulfillment of the Master Degree in Botany.


Dr. (Mrs.) Shagufta Khan

Director, Growtips Biotech Bhopal

GROW TIPS BIOTECH
AGRO TECH WELFARE SOCIETY
BHOPAL
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CAREER COLLEGE BHOPAL

Student Research Paper



Asian Journal of Pharmaceutical Education and Research

Vol -12, Issue-1, January- March 2023

ISSN:2278 7496

REVIEW ARTICLE

Impact Factor: 7.014

ESTIMATION OF PHYTOCHEMICALS AND QUANTITATIVE STUDY PHENOLIC AND FLAVONOIDS CONTENT IN LEAVES EXTRACT OF WRIGHTIA TINCTORIA

Uttara Singh Bhandari*, Jaswinder Mehta, Ruchi Acharya, Bhawna Sharma, Peenu Mahendra Joshi

Department of Botany, Career College, Bhopal (M. P.)

*Corresponding Author's E mail: uttarasingh23@gmail.com

Received 19 Nov. 2022; Revised 27 Nov. 2022; Accepted 09 Dec. 2022, Available online 15 Jan. 2023.



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<https://dx.doi.org/10.38164/AJPER/12.1.2023.17-22>

ABSTRACT

Considering the vast reach of traditional medicine and a growing interest in self-produced medicines, the use of therapeutic plants is growing globally. One such plant *Wrightia tinctoria* R.Br. (Family: Apocynaceae), sometimes known as "Indrajau," is found all over the world and is particularly common in India. Traditionally it is used for many purposes. This study focuses on analysing its phytochemicals qualitatively & quantitatively. The leaves of the plant were gathered & subjected to extraction by hydroalcoholic solvent. Qualitative & quantitative tests were then performed according to standard protocol. Results revealed that the plant contains flavonoids, phenol, proteins, carbohydrates, and saponins. The R_f value for quercetin standard was found to be 0.52. The bands obtained for long, short & normal light are 5, 2 & 1 respectively. From the R_f value obtained from the extract, it can be interpreted that the extract contains a range of flavonoid compounds along with quercetin. Total phenol & flavonoid content in *Wrightia tinctoria* extract was found to be 0.241 mg/100mg & 0.775 mg/100mg respectively. Thus, the obtained results point towards the fact that *Wrightia tinctoria* contains ample types & amounts of phytochemicals.

Keywords: Medicinal plants, Phytochemicals, Herbal medicines, *Wrightia tinctoria*, Phenol, flavonoids, TLC.

INTRODUCTION

The presence of phytochemicals in medicinal plants makes them effective for both treating and curing human ailments. The best source of valuable molecules for developing new medications for numerous major ailments like cancer, tumours, AIDS, and other human disorders is medicinal plants. It is well known that medicinal plants produce specific chemicals that prevent bacterial or fungal growth. Due to the build-up of bioactive phytochemicals in plant tissue, which are classified as primary and secondary metabolites, plants offer therapeutic effects^{1,2}.

In contrast to macronutrients and micronutrients, phytochemicals are biologically active, naturally occurring chemical compounds that are present in plants. They provide health benefits for people that



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Research Article

EXTRACTION AND ANTIMICROBIAL ACTIVITY OF HYDROALCOHOLIC EXTRACT OF *TEPHROSIA PURPUREA*

Adil Parvez Mansoori*, Ruchi Acharya, Jaswinder Mehta, Bhawna Sharma, Peenu
Mahendra Joshi

Article Received: July 2022 Accepted: July 2022 Published: August 2022

Abstract

In Present research work evaluate the antimicrobial activity of Hydroalcoholic extract of *Tephrosia purpurea*. *Tephrosia purpurea* L. belongs to family Fabaceae, commonly known as *KatuKolingi* in Tamil and *Sharapunka* in Sanskrit. It is indigenous to India and is also found in Ceylon, Mauritius, Tropical Africa and Subtropical regions. It is one of the most important plants used in the traditional system of medicine. Roots and seeds are insecticidal and piscicidal. Dried extracts were subjected to the phytochemical test using standard methods to test for alkaloids, glycosides, phenol, saponins, flavonoids and teroids separately for extracts of all samples. The content of total flavonoid compounds (TFC) content was expressed as mg/100mg of quercetin equivalent of dry extract sample using the equation obtained from the calibration curve: $Y = 0.06X + 0.019$, $R^2 = 0.999$, where X is the quercetin equivalent (QE) and Y is the absorbance. The present investigation in this research work, the antimicrobial activity of extract obtained from *Tephrosia purpurea* was evaluated against bacterial pathogens used under present study.

Key words: *Tephrosia purpurea*, Antimicrobial activity, Phytochemical analysis

Corresponding author:Adil Parvez Mansoori,
aadilmansoori78692@gmail.com

QR code



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Certificate of Acceptance & Publication

This certificate is awarded to Omjay Manikpuri, and certifies the acceptance for publication of research paper entitled "Comparative Analysis of Growth Parameters of Gram (*Cicer Arietinum*) Grown in Hydroponics and Soil Based System." in "International Journal of Research Publication and Reviews", Volume 4, Issue 1, 2022.

Signed

Anshik Agarwal



Date 06/01/2023

Editor-in-Chief
International Journal of Research Publication and Reviews

DEPARTMENT OF BIOTECHNOLOGY

Project on Plant Based Meat



DEPARTMENT OF CHEMISTRY

Student participated and won Award in National Symposium on Water Pollution and its Impact on Human and Environment on 21st March 2023



Publication of student's chapter in ISBN Edited Book

WATER POLLUTION AND ITS IMPACT ON HUMAN AND ENVIRONMENT

Compiled and Edited by

V.K. Parashar
Madhuri Singhal

Editorial Board

Alka Pradhan
Pooja Gupta

Published: March, 2023

ISBN: 978-93-94086-24-1

WATER POLLUTION AND ITS IMPACT ON HUMAN AND ENVIRONMENT

Editors

V.K. Parashar
Madhuri Singhal

Editorial Board

Alka Pradhan
Pooja Gupta

Published: March 2023
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Water Pollution and its Impact on Human & Environment
Editors: V.K. Parashar & Dr. Madhuri Singhal
Published by: Excellent Publishing House

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March 2023

Microplastic: A Major Cause of Water Pollution

Suparna Ghosh¹, Anita Singh², Ruchi Dubey Sharma³, Shweta Sharma⁴, Anita K⁵, V Abhishek⁶, Nishant Sachan⁷, Mehjish Ahmad⁸

^{1,2,3,4,5,6,7,8} Career College, Bhopal
¹drsuparna1978@gmail.com

Abstract: The term microplastic is introduced in the year 2004 by Thompson et al. Microplastic are considered as a small plastic with less than 5 mm size. Microplastic are widely used in various fields like cosmetics, textile, packaging materials etc. Due to their small size, they can easily enter water bodies and now becoming a major cause of water pollution. Massive production and slow decomposition rate increase the accumulation of microplastic in environment and cause adverse effects on water bodies, aquatic animals and on human health. Microplastics are easily ingested by aquatic creatures and accumulate in the food chain. By releasing toxic chemicals, they disrupt the natural balance of aquatic ecosystem.

This paper is a small effort to address the issue of microplastic induce water pollution and to aware the mass about its adverse effects. However, minimizing the effect of microplastic pollution should be a collaborative effort of government, industries and common people.

Keywords: microplastic, PVC, ecosystem, water pollution, effluent.

1. INTRODUCTION

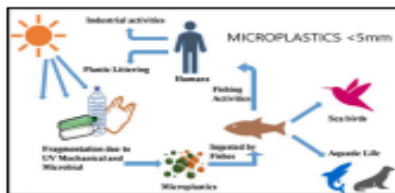
Microplastic pollution is considered as one of the most threatening problems of this world. They can easily enter to the waterbodies because of their minute size or they can be formed by the degradation process of bigger plastics. As per the current findings and estimations around 1.5 million tonnes of plastics disposed in different waterbodies annually. Due to the adverse effects of microplastics on aquatic animals and on human health, preventive steps against them became the need of this era.

About 700 aquatic species in the world were adversely affected by microplastics¹. Microplastics are mainly of two types- primary and secondary. Primary microplastics are manufactured with micro size as per the requirement of their application but secondary microplastics are produced by the mechanical or photochemical decomposition of larger plastics. Primary microplastics are used in some cosmetics and pharmaceutical products, cleaning agents, paints etc. Mismanagement of plastics and poor disposal methods causes the accumulation of plastics in water bodies and gradually they change into secondary microplastics. They distribute gradually in water, soil even in air.

Microplastic enter into water bodies through diverse sources like industrial discharge, urban runoff and sewage effluent². They can affect the behaviour and psychology of aquatic animals leading to long term lethal effects on the ecosystem. About 55% of microplastic in water bodies are polythene, 16% are polypropylene and the rest includes other polymers such as PVC, polyamides, polystyrene and polyesters.

2. HAZARDOUS EFFECT OF MICROPLASTICS

As we know that plastics have several uses and gradually it becomes a part of our daily life. Daily we used many things of plastics even single use plastics are widely used by people. Different surveys suggested that around one million plastic bottles are purchased in every minute in worldwide. Most of the plastic articles are thrown away as a garbage after their use. Till 1970 production of plastic is within the limits and hence managed efficiently. But after 1970 plastic production increases rapidly and after 2000 there was a boom in the consumption and production of plastic items, hence proper disposal of plastics becomes a challenge for entire world. As a result, a huge heap of plastic is now creating a threat for the environment. At present we are producing about more than 350 million tonnes of plastic waste every year. Microplastics can easily enter the human bodies by inhalation and absorption.



<https://www.google.com/search?q=prevention+from+microplastic+water+pollution&rlz=C>

After entering inside the body, they start to accumulate in our vital organs like lungs, kidney and liver etc. Recent studies

Water Pollution Caused by Agricultural Waste and Control Measures: A Review

Vaishnavi Sharma¹, Anita Singh^{2*}, Suparna Ghosh¹, Ruchi Dubey Sharma¹, Anita K¹, Shweta Sharma¹

¹Carver College, Bhopal -462023
²*anitasingh6@gmail.com

Abstract: Agriculture serves as the basis of the economies of many industrialized and emerging countries with considerable infrastructure shares. Several essential environmental functions like the nitrogen cycle, soil erosion, carbon sequestration, and many other biological patterns are impacted by important agricultural practices. The current research aims to comprehend how agricultural practices contribute to surface and groundwater pollution. Due to the excessive use of pesticides and chemical fertilizers, which eventually drain into groundwater and flow into surface water bodies, most farming activities are to blame for water pollution. This harms the aquatic ecosystem by changing the physicochemical properties of the water. In surface water bodies close to agricultural fields, eutrophication is the most prevalent aquatic issue. To increase output and keep their fields free of pests, farmers employ these nutrients that come from runoff from their fields. Algal blooms have been observed on the surface of the water body as a result of eutrophication, and these algal blooms reduce the amount of dissolved oxygen in the water and pose a threat to aquatic life. To avoid these negative effects, organic farming, and reduced usage of sustainable chemicals, and pesticides are crucial.

Keywords: Agricultural waste, Water Pollution, Eutrophication, Physicochemical properties

1. INTRODUCTION

Water is an essential natural resource for human development and drinking. Everyone's health must be maintained, which requires access to drinkable water. Water is a significant source of infection since it is a universal solvent. According to the WHO, 80 percent of illnesses are water-borne. The quality of the drinking water in some countries is adequate. Seaweed deaths are attributable to unclean and poor-quality water[1]. Seaweed, molluscs, marine birds, fish, crustaceans, and other sea animals that are used as food for humans are being killed by water pollutants. Along the food chain, the concentration of insecticides like DDT is rising. Some insecticides are hazardous to human beings. Insect pests, bacteria, and other microbes are all eliminated by pesticides. Chemicals with pesticides in them pollute and decrease water quality right away. If pesticides are applied excessively or improperly managed, they may be detrimental to the agricultural ecology. Only 60% of fertilizers are applied to the soil, and other

chemicals leach into the landscape and pollute the water. In addition to being a sanctuary for cyanobacteria, contaminated water also fosters eutrophication due to excessive phosphate runoff. Chemical wastes interact with river water and enter the food chain as a result of flooding, a lot of rain, and excessive irrigation[2].

1.1 Sources of Water pollutant

1.1.1 Point Source

It is defined as a discharge into surface waters through a pipeline, outfall, or trash at a specific location. In the point source, for instance, surface water releases from feedlots, food preparation facilities, agrochemical handling facilities, and groundwater contamination from chemical spills [3].

1.1.2 Non-Point Source

Contrary to pollution from point sources like industrial and sewage treatment plants, nonpoint source (NPS) pollution originates from a variety of diffuse sources. Rainfall or snowmelt flowing over and through the earth results in polluted runoff. Natural and man-made pollutants are picked up and carried away by runoff as it travels, where they are eventually dumped into watersheds through lakes, rivers, wetlands, coastal waters, and even our underground sources of drinking water. Non-point source pollution, formerly referred to as "diffuse" source pollution, results from a wide range of human activities that do not directly result in the entry of the pollutants into recipient watercourses [4]. A wide range of agricultural methods, land uses, and animal care products (feed) have historically been regarded as non-point sources of supply in many different regions.

2. AGRICULTURAL PRACTICES

In the world, horticulture uses 70% of the water that is withdrawn for irrigation, which significantly contributes to water contamination. Ranches release a variety of agrochemicals, organic materials, accumulated medication, salt, and saline waste into the aquatic environment. Horticulture in India provides the majority of the country's income and ranks second globally in cultivating production. According to India's Economic Survey 2018, almost 50% of the country's population is dependent on agribusiness and activities associated to agriculture, which generated 17-18% of

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A Paper Based Toxicity Control: An Approach to Improve Water Quality

Varsha Vishwakarma^{1*}, Suparna Ghosh¹, Shweta Sharma¹, Anita K¹, Anita Singh¹, Ruchi Dubey Sharma¹

Carver College, Bhopal
^{*}dr.ruchidubey80@gmail.com
Innovation Fellow-BIRAC

Abstract: Pollution has a huge impact on the environment and human health. Pollution affects all regions of the planet. It affects our health through drinking water, eating food and breathing air. It is estimated that about 19 million premature deaths occur annually due to the use of natural resources. Water pollution is a concern for all kinds of pollution, as water is an essential resource for all life on Earth. Pollution-induced contamination of water sources can cause health problems such as cholera, diarrhoea, dysentery, hepatitis A, typhoid and polio, cancer, and cardiovascular conditions in humans. The main causes of water pollution are industrial waste, untreated waste water disposal, fertilizer discharge, oil spills, chemical waste disposal and radioactive waste disposal. Based on a global study of pollution, in the world, contaminated water is the second most important cause of premature deaths due to pollution, accounting for about 1.4 million deaths annually, followed by lead, accounting for 900,000 deaths, and chemical exposure at work, accounting for 870,000 deaths. Therefore, the development of methods for controlling and monitoring water quality are essential. Our proposed methodology uses paper-based sensors to detect and filter toxic pollutants present in water. The papstode, we have developed detects toxic substances present in water. Thus, developed papstode act as an alternative as it analyzes the colour development with toxic identity. The tool is environment and user friendly.

Keywords: Water pollution, Papstode, Environment, User-friendly.

1. INTRODUCTION

Water pollution is the contamination of water bodies, generally caused by human excretion, which negatively affects its use. Bodies of water encompass lakes, oceans, abysses, aquifers, reservoirs and groundwater. When pollutants mix with these water bodies results in water pollution. Adulterants can come from any of four main sources wastewater discharges, artificial conditioning, agrarian conditioning and civic runoff comprising stormwater. Water pollution can be a groundwater pollution or surface water pollution. This can lead to multitudes problems due to deterioration of submarine ecosystems or the spread of waterborne diseases when people use it for their essentialities. According to the World Health Organization (WHO), 80% of the diseases and 50% of the child deaths in global context are due to poor drinking water

quality (Lin Li et al. 2022). Another debit is that water pollution reduces ecosystem services (e.g. the provision of drinkable water) which was otherwise available. The sources of water pollution may be point sources or non-point sources. Point sources have an identifiable cause, similar as a sewage treatment plant or an oil painting slip. Non-point sources are more verbose, similar to agricultural runoff. Pollution is the consequences of accretive action over time. Pollution can take the form of poisonous substances (similar as, oil painting, metals, plastics, fungicides, persistent organic adulterants, artificial waste products), stress conditions (e.g. pH changes, hypoxia or anoxia, elevated temperatures, moderate turbidity, changes the salt content) or the presence of pathogenic organisms. Pollutants can include organic and inorganic substances. Thermal pollution is the devastating consequence of water pollution. Among the numerous environmental adulterants (air, water, land, noise and radiation), water pollution is the most serious and has an impact on mental health and well-being. Water pollution costs municipalities and industrial water supplies & health which consequently damages various water-related activities, including leisure activities and marketable fishing (Dasgupta et al. 1985). Water pollution monitoring urges applicable structural and operational plans with validated legislation. Monitoring technologies may include sanitation enhancement, wastewater treatment, industrial wastewater treatment, agrarian wastewater treatment, erosion control, deposition control, and civic runoff control (including stormwater operation).

2. MITIGATION OF WATER POLLUTION

In view of all the problems caused by water pollution and its serious impacts on human health & environment, we need to take immediate action to prevent water pollution. We can access water from the valve all day long, but we often take the amount of fresh water on Earth for granted. With the growth of the world's population and rising water consumption, it is important to ensure that our lives and future generations always have safe water (EPA 1997). There are some policies and regulations enacted by the Government to prevent water sources, for illustration the 2003 Water Prevention and Control of Pollution Cess Act in India (Abdallah et al. 2022). Not only in India, but in other countries, there are also several policies to combat water pollution because water pollution is a global issue. For environmental scientists, it has always been an obligation to introduce new methods and technologies for

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Internship



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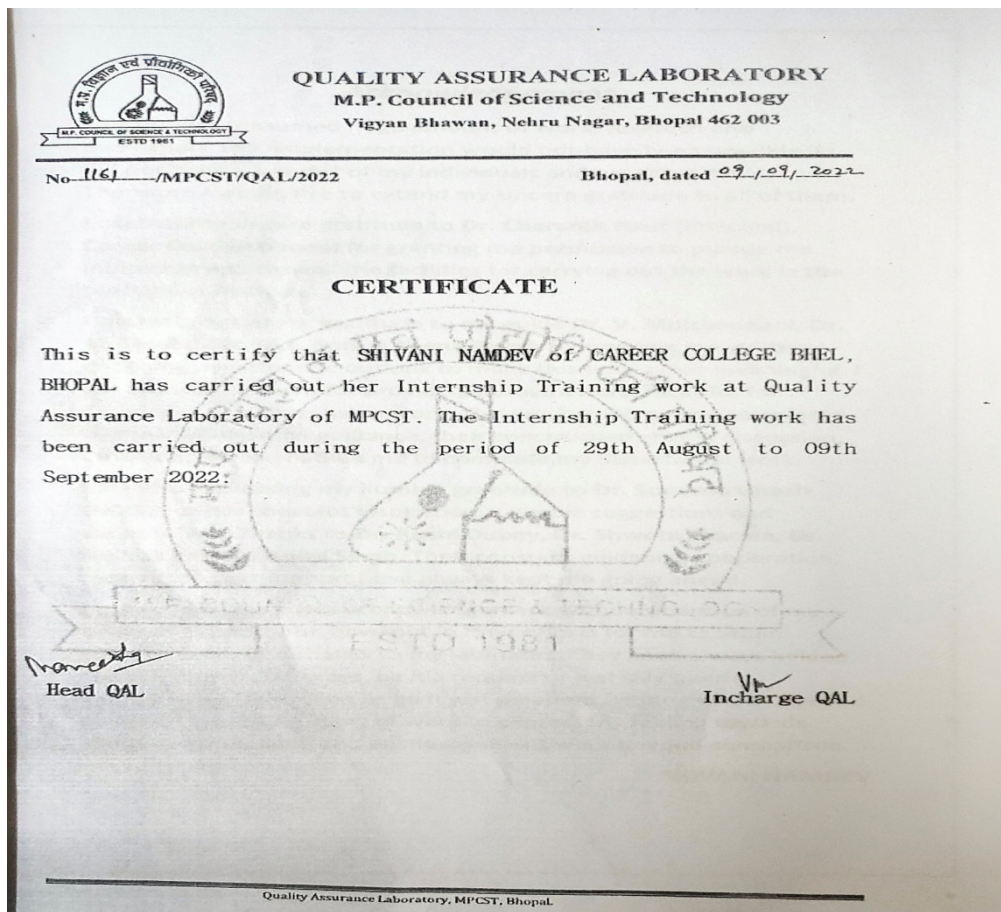
This is to certify that Mr./Ms. Aakash Kumar Thakur student of M.Sc chemistry from Career College, Bhopal has completed Industrial Training under mentorship of Hind Pharma from date 05-09-2022 to 19-09-2022. Student has been exposed to Manufacturing, Quality Control, Quality Assurance dept. of our firm. We wish all the success for his/her future endeavors.


19-09-2022
DATE


SIGNATURE
For HIND PHARMA
QA / Analytical Chemist



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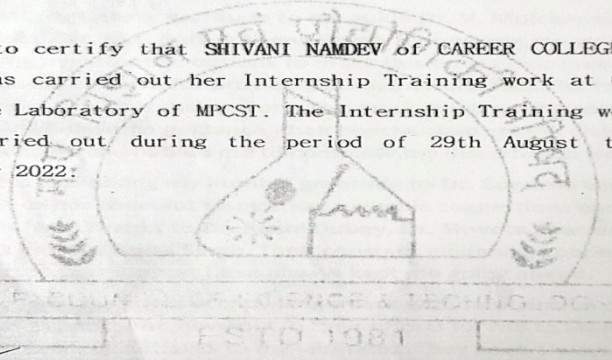



QUALITY ASSURANCE LABORATORY
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No. 1161 /MPCST/QAL/2022 Bhopal, dated 09/09/2022

CERTIFICATE

This is to certify that SHIVANI NAMDEV of CAREER COLLEGE BHIL, BHOPAL has carried out her Internship Training work at Quality Assurance Laboratory of MPCST. The Internship Training work has been carried out during the period of 29th August to 09th September 2022:



Manoj
Head QAL

VK
Incharge QAL

Quality Assurance Laboratory, MPCST, Bhopal.



ENVIRONMENTAL PLANNING & COORDINATION ORGANIZATION
Environmental Research Laboratory
E-5 Arera Colony, Bhopal

CERTIFICATE

This is to certify that *Aishwarya Jha*, student of M.Sc., Chemistry, Department of Chemistry, Career College, Bhopal (M.P.), has successfully completed 'Short Term Training Program on Environmental Pollution and Water Quality Analysis of Upper and Lower Lakes of Bhopal' from 16th August to 25th August, 2022 at Environmental Research Laboratory (ERL), Environmental Planning and Coordination Organization, Bhopal.

Dr. Subrata Pani
(Training coordinator)

Dr. R.K. Jain
(Sr. Scientific Officer & OIC, ERL)

Shriman Shukla, IAS
Executive Director

DEPARTMENT OF COMMERCE AND MANAGEMENT

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INTERNSHIP CERTIFICATE

This is to certify that M/s. Vandita Dwivedi D/o Vinay Dhar Dwivedi ,Permanent resident of Village/ Post , South Karaundiya, Sidhi Distt-Sidhi , (M.P.) is working with us since 20 January 2023 to 05 February 2023 as an Computer Operator

During this period her work and conduct has been satisfactory.

Training Co- Ordinator



GSTIN : 23AALFJ8750D1ZD
Mandi Lic. No. : 402 / 2013-14



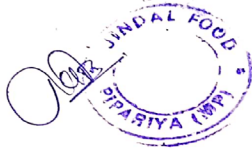
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94250-40685
E-mail : yogeshppi@gmail.com

CERTIFICATE OF INTERNSHIP

This is certified that Mr. Ishan Rai, student of Career College, Bhopal, having Application No. 1220025406268 has successfully completed the internship program from 30th December 2022 to 6th January 2023 in our company "JINDAL FOODS" at Pipariya.

Signature of Manager



Deepak Goyal & Associates

Chartered Accountants


H.O : F-02, Sanchi Complex, Opp. Board Office, Shivaji Nagar, BHOPAL - 462016 Ph.: 0755-2572240, email : d_goyal99@hotmail.com

This is to certify that Ms. Simran Raghuwanshi student of BBA 1st year of Career College, Bhopal has successfully attended her internship in the field of Accounting from 23rd January 2023 to 8th February 2023 under the guidance of CA Deepak Goyal.

During the period of her internship with us her conduct was good and we wish for her bright future.

For Deepak Goyal & Associates
Chartered Accountant

FRN: 006749C


CA Deepak Goyal
Partner



Date: 08.02.2023

Place: Bhopal



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JOB COMPLETION CERTIFICATE

This is to certify that MR. RAHUL PAL of BBA 1st year CAREER COLLEGE BHOPAL, worked in the project internship and successfully completed his internship as an FINANCE & INSURANCE intern at SIMISH SOLUTIONS from 09/01/2023 to 14/01/2023.

RAHUL PAL is extremely hard-working, dedicated and result oriented, he has done excellent work during his tenure in the organization. We wish them a golden future.

WITH BEST WISHES

LOCATION: BHOPAL
DATE: 14/01/2023

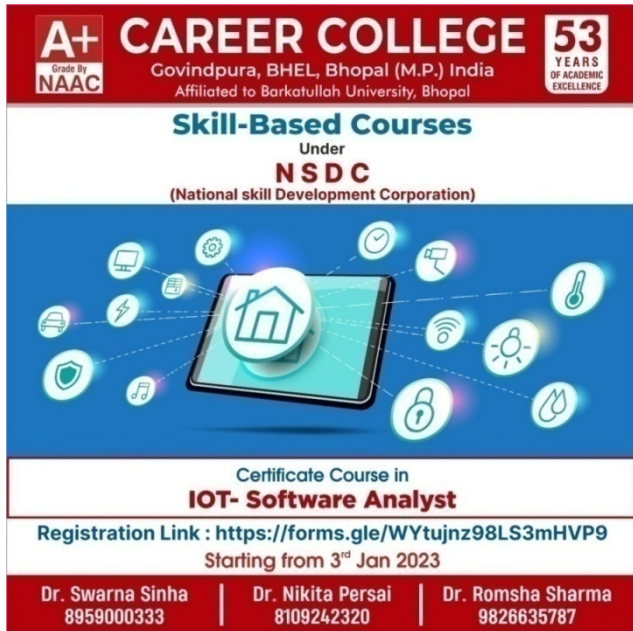
For : Simish Solution


Proprietor

DEPARTMENT OF COMPUTER SCIENCE

Internship on IOT (Internet of Things)

Date: 3rd Jan.23 to 28th Feb.23



A+ CAREER COLLEGE **53**
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Registration Link : <https://forms.gle/WYtujnz98LS3mHVP9>
Starting from 3rd Jan 2023

Dr. Swarna Sinha 8959000333 | Dr. Nikita Persai 8109242320 | Dr. Romsha Sharma 9826635787



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Web development # Internet of Things # Search Engine Optimization # PV-Solar

*****CERTIFICATE*****

This is to Certify that **Mr/Ms. Aditya Pratap Singh** student Of **Class BCA I year of Career College, Bhopal** has successfully completed the Training on **Internet Of Things** held during the **session 2022-23** from date **3/1/2023 to 28/02/2023**

We wish him a bright future ahead.

[Signature]
Director

Ar
Gc

DEPARTMENT OF HUMANITIES

Department of humanities organize 15 days internship for Political Science students at kunjilal dubey sansdeey vidyapeeth.



DEPARTMENT OF LIBRARY AND INFORMATION SCIENCE

Regional Institute of Education Bhopal



Library Learning Resource Centre



Report of Library Internship






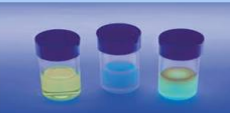


10/10/2022 - 28/11/2022

Submitted to
Dr. P.k. Tripathy
(Librarian RIE Bhopal)

Submitted by :
Riya Singh
(Intern career college)

DEPARTMENT OF MICROBIOLOGY

Water Quality Analysis: 27/03/2023 to 01/04/2032

Water Quality Analysis Value Added Course		
	Date : 27th March-1st April 2023 Time:11:00 am	
	Module <ul style="list-style-type: none">•Physical Analysis•Chemical Analysis•Microbiological Analysis•Reporting and standard procedures•Result Interpretation	
	Organized by DEPARTMENT OF MICROBIOLOGY CAREER COLLEGE, BHOPAL	
		



Microbiological Staining Techniques (21 – 22 Sept. 2022)



DEPARTMENT OF PATHOLOGY

Internship

CAREER COLLEGE OF BHOPAL



SESSION 2022-23

CERTIFICATE

This is to certify that "MITALI NAGPURE " has successfully completed project report entitle "**Laboratory Instruments**" in partial fulfillment for award of Bachelor's of Medical Laboratory Technology Degree from Madhya Pradesh Medical Science University, Jabalpur in Session 2022-23. It has been found to be satisfactory and here by approved for submission.

Dr. Anamika Dubey

Head of Department

Department of Pathology

Dr. Charanjit Kaur

Principal

Career College Bhopal

CAREER COLLEGE OF BHOPAL



SESSION 2022-23

CERTIFICATE

This is to certify that "JANESAR KHAN" has successfully completed project report entitle "Laboratory Instruments" in partial fulfillment for award of Bachelor's of Medical Laboratory Technology Degree from Madhya Pradesh Medical Science University, Jabalpur in Session 2022-23. It has been found to be satisfactory and here by approved for submission.

Dr. Anamika Dubey
Head of Department
Department of Pathology

Dr. Charanjit Kaur
Principal
Career College Bhopal

DEPARTMENT OF PHYSIOTHERAPY

Six months Compulsory Rotatory Internship completion Certificates

CAREER COLLEGE
Department of Physiotherapy
&
Rehabilitation,
Recognized by M.P. State Paramedical Council and
Indian Association of Physiotherapy
& Affiliated to Jabalpur Medical University, Jabalpur



Ref No. CC/BPT/23/2 Date: 08-04-23

COMPULSORY ROTATORY INTERNSHIP CERTIFICATE

This is to certify that **Ms. Monika Singpure** D/o **Mr. Ramesh Singpure** was a bonafide student of physiotherapy department of Career College Bhopal from **2016 to 2022** in Bachelor of Physiotherapy course having 4.5 years duration. She passed B.P.T. final year examination of Madhya Pradesh Medical Science University, Jabalpur (M.P.) held in **December 2021**. She has completed 6 Month of Compulsory rotatory Internship from **08/08/2022 to 02/03/23** during the period of internship, she worked in the hospitals as per following details.

S. No.	Hospital	From	To
1.	CIMS, Bhopal	08/08/2022	08/11/2022
2.	V.S.P.M's College of Physiotherapy & Lata Mangeshkar Hospital, Nagpur	01/12/2022	02/03/2023

The work conduct and character of the internce were satisfactory.
Issued on dated: **08/04/2023**.

 **HOD**
Physiotherapy Department
Career College
Bhopal
  **PRINCIPAL**
CAREER COLLEGE
CHAKRA, NIPUNDA, BHOPAL

Career College, Govindpura, B.H.E.L., BHOPAL - 462023 (M.P.)
Ph: 0755-2489427, 2489042, 2488090 Fax: 0755-2472978 E-Mail: physiotherapy@careercollegeindia.com

CAREER COLLEGE
Department of Physiotherapy
&
Rehabilitation,
Recognized by M.P. State Paramedical Council and
Indian Association of Physiotherapy
& Affiliated to Jabalpur Medical University, Jabalpur


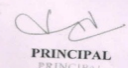
Ref No. CC/BPT/23/206 Date: 18/03/2023

COMPULSORY ROTATORY INTERNSHIP CERTIFICATE

This is to certify that **Ms. Kirti Shukla** D/o **Mr. Bhuvaneshwer Shukla** was a bonafide student of physiotherapy department of Career College Bhopal from **2016 to 2022** in Bachelor of Physiotherapy course having 4.5 years duration. She passed B.P.T. final year examination of Madhya Pradesh Medical Science University, Jabalpur (M.P.) held in **December 2021**. She has completed 6 Month of Compulsory rotatory Internship from **29/08/2022 to 24/02/23** during the period of internship, she worked in the hospitals as per following details.

S. No.	Hospital	From	To
1.	Govt. Medical College and Hospital, Bettiah, Bihar	29/08/2022	24/02/2023

The work conduct and character of the internce were satisfactory.
Issued on dated: **18/03/2023**.

 **HOD**
Physiotherapy Department
Career College
Bhopal
  **PRINCIPAL**
CAREER COLLEGE
CHAKRA, NIPUNDA, BHOPAL


Career College, Govindpura, B.H.E.L., BHOPAL - 462023 (M.P.)
Ph: 0755-2489427, 2489042, 2488090 Fax: 0755-2472978 E-Mail: physiotherapy@careercollegeindia.com

Internship Projects submitted by the BPT Final Year students

**MADHYA PRADESH MEDICAL SCIENCE
UNIVERSITY**

CAREER COLLEGE BHOPAL

SESSION: 2022-23



**Anterior Cruciate
Ligament Injury**


Submitted by-
ROHIT ROKDE
BPT 4th YEAR

Guided by-
Dr. Neeraj Singh
MPT Sports

**MADHYA PRADESH MEDICAL SCIENCE
UNIVERSITY**

CAREER COLLEGE BHOPAL

SESSION: 2022-23



LATERAL EPICONDYLITIS

Submitted by-
Pooja Tiwari
BPT (4th Year)

Guided By-
Dr. Namrata Shrivastav
MPT (Orthopaedic)

DEPARTMENT OF ZOOLOGY