



Department : Forensic Science		
Academic Year : 2024-25		
Sr. No.	Programme Code	Name of the Programme
01.	329	B. Sc. Forensic science (Six Semester)

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Signature and Seal of the Head

Head,
Department of Forensic Science
Guru Ghasidas Vishwavidyalaya
Bilaspur (C.G.)



A Review Paper on
Acid Attacks: A Global Perspective on Causes, Consequences, and
Countermeasures

B. Sc. Mini project Submitted to
Guru Ghasidas Vishwavidyalaya
Bilaspur (C.G.)

In Partial fulfillment of requirement for the degree of
Bachelor of Science Honors

in
Forensic Science

By

ABHIJEET ANAND

B. Sc. VI Semester

Enrollment No: GGV/22/10301 Roll no. - 22045101

UNDER THE GUIDANCE OF

Miss. Shubhra Shree Gajbhiye



Department of Forensic Science
(Session 2022-25)

Guru Ghasidas Vishwavidyalaya Bilaspur (C.G.)



Department of Forensic Science
Guru Ghasidas Vishwavidyalaya Bilaspur (C.G.)
(A Central University Established by the Central University Act, 2009 No. 25
of 2009)

CERTIFICATE

This is to certify that Mr. Abhijeet Anand (Enrollment No.- GGV/22/10301, Roll No. 22045101) has carried out his Under Graduate Review work entitled " Acid Attacks: A Global Perspective on Causes, Consequences, and Countermeasures" under the supervision of Miss. Shubhra Shree Gajbhiye toward partial fulfillment of degree of Bachelor of Science in Forensic Science.

The work presented in the Review report is original and has not been submitted anywhere else for this or any other degree.

Date - 13/5/25
Place - Bilaspur

S. Gajbhiye
13/5/25

Miss Shubra Shree

3 | ABHIJEET ANAND



Department of Forensic Science
Guru Ghasidas Vishwavidyalaya Bilaspur (C.G.)
(A Central University Established by the Central University Act, 2009 No. 25 of 2009)

No.F.Sc./2025

Date -

Dr. Navjot Kaur Kanwal
Head of Department
Department of Forensic Science
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)

FORWARDING CERTIFICATE

This is to certify that Mini project entitled "Acid Attacks: A Global Perspective on Causes, Consequences, and Countermeasures" has been submitted by **ABHIJEET ANAND**, B.Sc. VI Semester, Guru Ghasidas Vishwavidyalaya Bilaspur (C.G.) under the guidance of **Miss. Shubhra Shree Gajbhiye** towards partial fulfillment of the requirement for the award of Bachelor's Degree in Forensic Science.


13/05/2025

Dr. Navjot Kaur Kanwal
Head of Department
Department of Forensic Science
Guru Ghasidas Vishwavidyalaya
Bilaspur (C.G.)

Head,
Department of Forensic Science
Guru Ghasidas Vishwavidyalaya
Bilaspur (C.G.)

2 | **ABHIJEET ANAND**



A Review Paper on
Advanced Techniques on Blood Pattern Analysis

B. Sc. Mini project Submitted to
Guru Ghasidas Vishwavidyalaya
Bilaspur (C.G.)

In Partial fulfillment of requirement for the degree of
Bachelor of Science Honors
in

Forensic Science
By

SUPRIYA JASKAR

B. Sc. VI Semester

Enrollment No: GGV/22/10331 Roll no. - 22045131

UNDER THE GUIDANCE OF

Dr. Ajay Amit
Assistant Professor



Department of Forensic Science
(Session 2022-25)

Guru Ghasidas Vishwavidyalaya Bilaspur (C.G.)



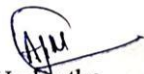
Department of Forensic Science
Guru Ghasidas Vishwavidyalaya Bilaspur (C.G.)
(A Central University Established by the Central University Act, 2009 No. 25 of 2009)

CERTIFICATE

This is to certify that Miss Supriya Jaskar (Enrollment No.- GGV/22/10331, Roll No. 22045131) has carried out her Under Graduate Review work entitled "Advanced Techniques on Blood Pattern Analysis" under the supervision of Dr. Ajay Amit from 2022-25 toward partial fulfillment of Degree of Bachelor of Science in Biotechnology.

The work presented in the Review report is original and has not been submitted anywhere else for this or any other degree.

Date - 17/5/2025
Place - Bilaspur


Under the
Supervision of Dr.
Ajay Amit
Assistant Professor



Department of Forensic Science
Guru Ghasidas Vishwavidyalaya Bilaspur (C.G.)
(A Central University Established by the Central University Act, 2009 No. 25 of 2009)

No. /F.Sc./2025

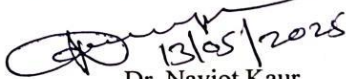
Bilaspur

Date -

Dr. Navjot Kaur Kanwal
Head of Department
Department of Forensic Science
Guru Ghasidas Vishwavidyalaya Bilaspur (C.G.)

FORWARDING CERTIFICATE

This is to certify that Mini project entitled "Advanced Techniques on Blood Pattern Analysis" has been submitted by Supriya Jaskar, B.Sc. VI Semester, Guru Ghasidas Vishwavidyalaya Bilaspur (C.G.) under the guidance of **Dr. Navjot Kaur Kanwal** towards partial fulfillment of the requirement for the award of Bachelor's Degree in Forensic Science.


13/05/2025

Dr. Navjot Kaur
Kanwal Associate
Professor Head of
Department
Department of Forensic Science
Guru Ghasidas
Vishwavidyalaya Bilaspur
(C.G.)
Head,
Department of Forensic Science
Guru Ghasidas Vishwavidyalaya
Bilaspur (C.G.)



A REVIEW ON DIGITAL AUTOPSY

B.Sc Mini Project Submitted to Guru Ghasidas Vishwavidyalaya, Bilaspur

In

Partial fulfillment of requirements for the degree of

Bachelor of Science Honors

In

Forensic Science

By

DEVYANI YADAV

B.Sc VIth Semester

Enrollment No:- GGV/22/10308 Roll No- 22045108

UNDER THE GUIDANCE OF

Miss Leesha Ranade

Department of Forensic Science



Guru Ghasidas Vishwavidyalaya, Bilaspur(C.G)



Department of Forensic Science
Guru Ghasidas Vishwavidyalaya, Bilaspur, (C.G.)
(A Central University Established by the Central University Act, 2009 No. 25 of 2009)

CERTIFICATE

This is to certify that **Ms. Devyani Yadav** (Enrollment No.- GGV/22/10308, Roll No. 22045108) has carried out her Under Graduate dissertation work entitled “**A Review on Digital Autopsy**” under the guidance of **Ms Leesha Ranade** from the month March to May 2025 toward partial fulfillment of degree of Bachelor of Forensic Science.

The work presented in the mini project report is original and has not been submitted anywhere else for this or any other degree.

Date:
Place: Bilaspur

Ms Leesha Ranade



Development of Latent Fingerprints by different powders

**A Project Dissertation submitted to Guru Ghasidas Vishwavidyalaya for
Degree**

Bachelors of Science

In

Forensic science

Submitted by

M Jogamaya

(Enrollment no: GGV/22/10319; Roll No. : 22045119)

Under the supervision of

Dr. Navjot Kaur Kanwal

Head of Department

Department of Forensic Science

Guru Ghasidas Vishwavidyalaya, Bilaspur- 495009 (C.G)

Bilaspur, C.G.





DEPARTMENT OF FORENSIC SCIENCE

Guru Ghasidas Vishwavidyalaya, Bilaspur (CG) (9500)

(A central University established by the Act of Parliament 2009 No. 25 of 2007)

CERTIFICATE

This is to certify that the project entitled "Development of Latent Fingerprints by different powders" is an authentic record of work submitted by M JOGAMAYA, is her individual work and has been done at the Department of Forensic Science, Guru Ghasidas Vishwavidyalaya, Bilaspur, Chhattisgarh. It is recommended that this project be pleased before the examiner for evaluation in the partial fulfillment of the Bachelors degree in Forensic Science

Date: 13th May 2025

Place: Bilaspur

Dr. Navjot Kaur Kanwal

Associate Professor

Head,
Department of Forensic Science
Guru Ghasidas Vishwavidyalaya
Bilaspur (C.G.)

Head,
Department of Forensic Science
Guru Ghasidas Vishwavidyalaya
Bilaspur (C.G.)



DEPARTMENT OF FORENSIC SCIENCE

GURU GHASIDAS VISHWAVIDYALAYA BILASPUR C.G.

(A Central University Established by the Central University Act 2009, No. 25 of 2009)

FORWARDING CERTIFICATE

This is to certify that the project report entitled "Development of Latent Fingerprints by different powders" submitted by Miss. M Jogamaya is her individual work and has been done at the Department of Forensic Science, Guru Ghasidas Vishwavidyalaya Bilaspur (C.G.). It is recommended that this project be presented to the examiner for evaluation in partial fulfilment of the Bachelor's Degree in Forensic Science.

Place: Bilaspur

Date: 13th May 2025

Head of Department

Dr. Navjot Kaur Kanwal

Associate Professor

Dept. of Forensic Science

G. G. V., Bilaspur

Head,
Department of Forensic Science
Guru Ghasidas Vishwavidyalaya
Bilaspur (C.G.)

Head,
Department of Forensic Science
Guru Ghasidas Vishwavidyalaya
Bilaspur (C.G.)



A Review Paper on
Human Health Risk to the use of Chemical Mosquito Repellent

B. Sc. Mini project Submitted to
Guru Ghasidas Vishwavidyalaya
Bilaspur (C.G.)

In Partial fulfillment of requirement for the degree of
Bachelor of Science Honors
in
Forensic Science
By

HARSHITA JAISWAL
B. Sc. VI Semester
Enrollment No: GGV/22/10310 Roll no. – 22045110

UNDER THE GUIDANCE OF

Dr. Sudhir Yadav
Assistant Professor



Department of Forensic Science
(Session 2022-25)

Guru Ghasidas Vishwavidyalaya Bilaspur (C.G.)



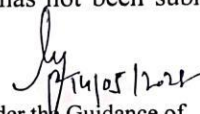
Department of Forensic Science
Guru Ghasidas Vishwavidyalaya Bilaspur (C.G.)
(A Central University Established by the Central University Act, 2009 No. 25 of 2009)

CERTIFICATE

This is to certify that Miss Harshita Jaiswal (Enrollment No.- GGV/22/10310, Roll No. 22045110) has carried out her Under Graduate Review work entitled " Human Health Risk to the use of Chemical Mosquito Repellent" under the supervision of Dr. Sudhir Yadav from 2022-25 toward partial fulfillment of degree of Bachelor of Science in Forensic Science.

The work presented in the Review report is original and has not been submitted anywhere else for this or any other degree.

Date –
Place - Bilaspur


Under the Guidance of
Dr. Sudhir Yadav
Assistant Professor



Department of Forensic Science
Guru Ghasidas Vishwavidyalaya Bilaspur (C.G)
(A Central University Established by the Central University Act, 2009 No. 25
of 2009)

No. /F.Sc./2025
Date -

Bilaspur

Dr. Navjot Kaur Kanwal
Head of Department
Department of Forensic
Science
Guru Ghasidas Vishwavidyalaya Bilaspur (C.G)

FORWARDING CERTIFICATE

This is to certify that Mini project entitled "Human Health Risk to the use of Chemical Mosquito Repellent" has been submitted by **Harshita Jaiswal**, B.Sc. VI Semester, Guru Ghasidas Vishwavidyalaya Bilaspur (C.G) under the guidance of **Dr. Sudhir Yadav** towards partial fulfillment of the requirement for the award of Bachelor's Degree in Forensic Science.

Dr. Navjot Kaur
Kanwal Associate
Professor Head of
Department
Department of Forensic Science
Guru Ghasidas
Vishwavidyalaya Bilaspur
(C.G)
Head,
Department of Forensic Science
Guru Ghasidas Vishwavidyalaya
Bilaspur (C.G.)



A MINI-PROJECT WORK REPORT

ON

"Forensic Video Analysis Software: A Comprehensive Review of
Research and Tools"

Submitted for

Partial fulfilment of the requirement for the award of Bachelor of Science of Forensic Science



DEPARTMENT OF FORENSIC SCIENCE
GURU GHASIDAS VISHWAVIDYALAYA
BILASPUR, CHHATTISGARH (A CENTRAL UNIVERSITY)
SESSION- (2024-25)

SUPERVISED BY.

Dr. NAVJOT KAUR KANWAL

(HEAD OF DEPARTMENT)

SUBMITTED BY

HNDOL ROY

B. Science (6 TH SEM)

ROLL NUMBER - 22045114

ENROLLMENT .NO- GGV/22/10314



No. / F.Sc / 2025



DEPARTMENT OF FORENSIC SCIENCE

GURU GHASIDAS VISHWAVIDYALAYA, BILASPUR, C.G.

(A central university, Established by the Central University Act - 2009 no.25 of 2009)

Tel.No.-07752-260027, Fax no-07752- 260148

CERTIFICATE

This is to certify that Hindol Roy, S/O Sanjoy Roy a student of B. Sc final year (6th semester) of Department of Forensic science has Submitted her project work entitled "Forensic Video Analysis Software: A Comprehensive Review of Research and Tools under my guidance during academic session 2024-25.

I hereby forwarded this project work.


Supervised By

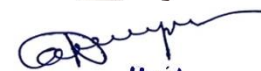
Dr. NAVJOT KAUR KANWAL

HEAD OF DEPARTMENT

Department Of Forensic Science

GGV, Bilaspur (C. G.)

Head,
Department of Forensic Science
Guru Ghasidas Vishwavidyalaya,
Bilaspur (C.G.)


Head,
Department of Forensic Science
Guru Ghasidas Vishwavidyalaya
Bilaspur (C.G.)



गुरु घासीदास विश्वविद्यालय, बिलासपुर
Guru Ghasidas Vishwavidyalaya, Bilaspur
A Central University established by the Central University Act 2009 No. 25 of 2009



A REVIEW REPORT ON

**BLOOD PATTERN ANALYSIS: CURRENT TRENDS AND
FORENSIC SIGNIFICANCE**

Submitted in the partial fulfillment of the requirement for the award of the Degree of
Bachelor of Science (Hons.) Forensic Science

2022-2025

Submitted by

Himanshu Thawait

Roll No.: 22045113

Enrollment No.: GGV/22/10313

B.Sc. (Hons.) Forensic Science

Under the guidance of

Dr. Chanchal Kumar

Assistant Professor

Department of Forensic Science



Department of Forensic Science

Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)



गुरु घासीदास विश्वविद्यालय, बिलासपुर
Guru Ghasidas Vishwavidyalaya, Bilaspur
A Central University established by the Central University Act 2009 No. 25 of 2009



Department of Forensic Science
Guru Ghasidas Vishwavidyalaya, Bilaspur, C.G.

(A Central University established by the Central University Act 2009 No. 25 of 2009)

No. _____/F.Sc/2025

Date:

CERTIFICATE

This is to certify that the mini project entitled “Blood Pattern Analysis: Current Trends and Forensic Significance” submitted by Himanshu Thawait to Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.), for the award of a B.Sc. Degree in Forensic Science review study under my guidance. I further certify that the review study or part thereof has not formed the basis for the award of any other degree or diploma.

Date:

Place: Bilaspur

Guru Ghasidas Vishwavidyalaya

Kumar
13/05/2025
Dr. Chanchal Kumar

Assistant Professor

Bilaspur (C.G.)

Head,
Department of Forensic Science
Guru Ghasidas Vishwavidyalaya
Bilaspur (C.G.)



A Review Paper on
Forensic Aspects of Intimate Partner Violence: Understanding
Evidence, Psychology, and Law

B. Sc. Mini project Submitted to
Guru Ghasidas Vishwavidyalaya
Bilaspur (C.G.)

In Partial fulfillment of requirement for the degree of
Bachelor of Science Honors

in
Forensic Science
By

RISHIKESH KUMAR

B. Sc. VI Semester

Enrollment No: GGV/22/10323 Roll no. - 22045123

UNDER THE GUIDANCE OF

Miss. Shubhra Shree Gajbhiye



Department of Forensic Science
(Session 2022-25)

Guru Ghasidas Vishwavidyalaya Bilaspur (C.G.)



Department of Forensic Science
Guru Ghasidas Vishwavidyalaya Bilaspur (C.G.)
(A Central University Established by the Central University Act, 2009 No. 25
of 2009)

CERTIFICATE

This is to certify that Mr. Rishikesh Kumar
(Enrollment No.- GGV/22/10323, Roll No. 22045123) has carried out her Under
Graduate Review work entitled " Forensic Aspects of Intimate Partner Violence:
Understanding Evidence, Psychology, and Law " under the supervision of Miss.
Shubhra Shree Gajbhiye toward partial fulfillment of degree of Bachelor of
Science in Forensic Science.

The work presented in the Review report is original and has not been submitted
anywhere else for this or any other degree.

Date - 13/5/25
Place - Bilaspur

Shubhra Shree Gajbhiye
13/5/25
Miss Shubhra Shree Gajbhiye

Head,
Department of Forensic Science
Guru Ghasidas Vishwavidyalaya
Bilaspur (C.G.)



Department of Forensic Science
Guru Ghasidas Vishwavidyalaya Bilaspur (C.G.)
(A Central University Established by the Central Universities Act, 2009 No. 25
of 2009)

No. /F.Sc./2025

Date - 13/05/2025

Dr. Navjot Kaur Kanwal

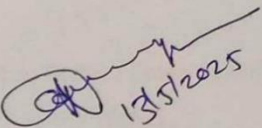
Head of Department

Department of Forensic Science

Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)

FORWARDING CERTIFICATE

This is to certify that Mini project entitled "Forensic Aspects of Intimate Partner Violence: Understanding Evidence, Psychology, and Law" has been submitted by **RISHIKESH KUMAR**, B.Sc. VI Semester, Guru Ghasidas Vishwavidyalaya Bilaspur (C.G.) under the guidance of **Miss. Shubhra Shree Gajbhiye** towards partial fulfillment of the requirement for the award of Bachelor's Degree in Forensic Science.


13/5/2025

Dr. Navjot Kaur Kanwal

Head of Department

Department of Forensic Science

Guru Ghasidas Vishwavidyalaya

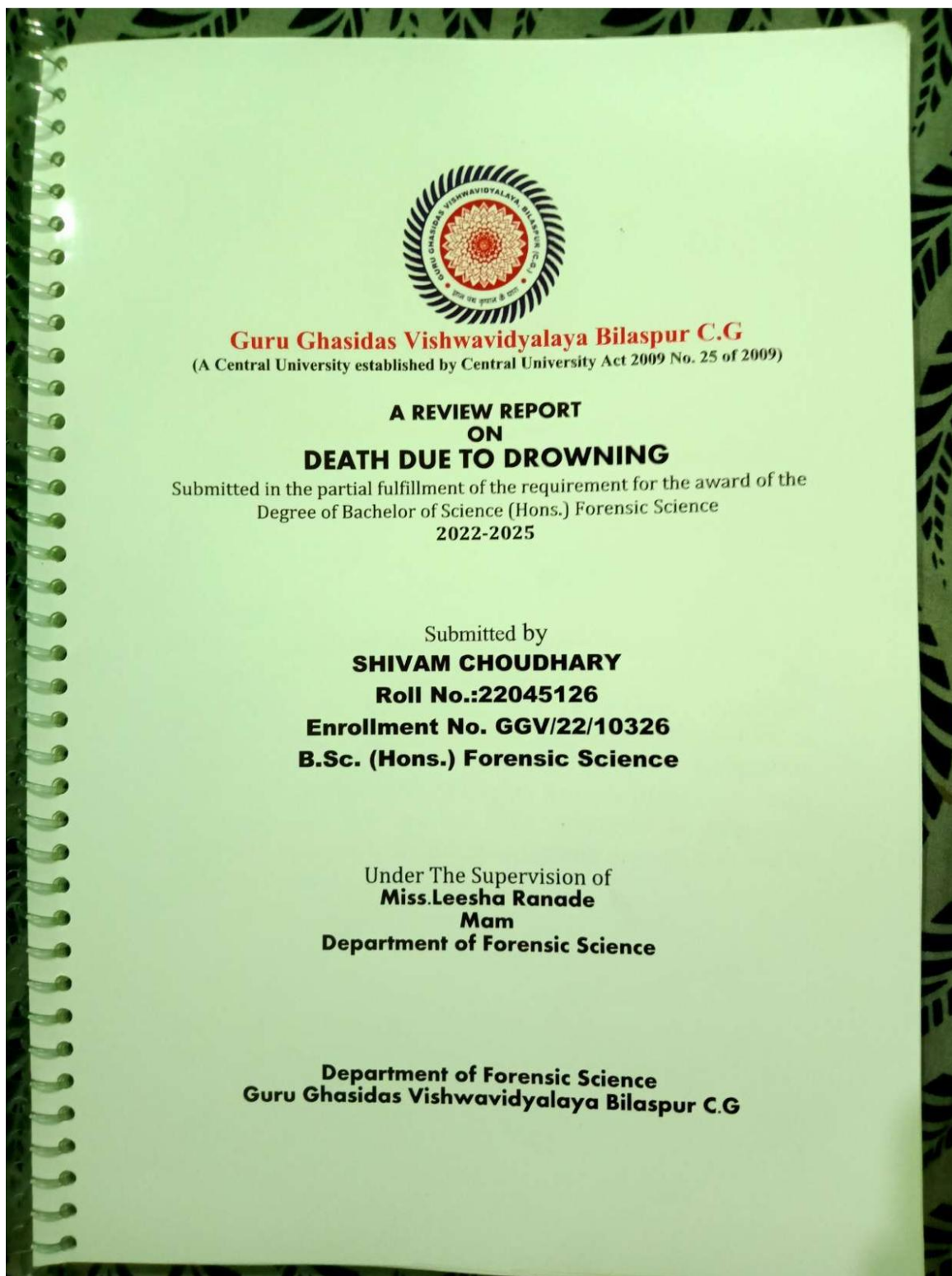
Bilaspur (C.G.)

Head,

Department of Forensic Science

Guru Ghasidas Vishwavidyalaya

Bilaspur (C.G.)





Department of Forensic Science
Guru Ghasidas Vishwavidyalaya Bilaspur C.G
(A Central University established by Central University Act 2009 No. 25 of 2009)

No./F.Sc/2025
Date:13/05/25

CERTIFICATE

This is to certify that the mini project entitled “**A review on death due to drowning**” submitted by **Shivam Choudhary** to Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G) for the award of B.Sc. Degree in Forensic Science review study by his under my guidance. I further certify that review study or part of there has not formed the basis for the award of any other degree or diploma.

Date:13/05/2025
Place: Bilaspur


Leesha Ranade

Guru Ghasidas Vishwavidyalaya
Bilaspur (C.G)



Abstract

Drowning is a significant and preventable cause of death globally, constituting one of the leading forms of unintentional injury-related mortality. This comprehensive review delves into the forensic, epidemiological, and physiological aspects of death due to drowning. Drowning is defined as respiratory impairment resulting from immersion or submersion in a liquid medium, typically water, and may result in survival with or without morbidity, or in death. The paper classifies drowning into various types, including typical (wet) drowning, atypical forms such as dry drowning, immersion syndrome, near drowning, and shallow water drowning—each with distinct pathophysiological mechanisms and forensic implications.

A key challenge in forensic science is differentiating between antemortem and postmortem submersion. This review emphasizes the importance of comprehensive autopsy procedures, highlighting both external findings (like froth at the mouth and nose, cutis anserina, and cadaveric spasm) and internal findings (such as waterlogged lungs, Paltauf's hemorrhages, and diatoms in internal organs). The presence of diatoms—microscopic algae—in bodily tissues is particularly crucial in establishing antemortem drowning and aids in validating drowning as the cause of death.

Epidemiological data presented in the paper underscore the global burden of drowning. According to WHO estimates, drowning accounts for over 360,000 deaths annually, with children under the age of five, elderly individuals, and males being at highest risk. Behavioral factors such as alcohol consumption, lack of swimming ability, and risky water-related activities significantly increase drowning susceptibility. Environmental variables, including seasonal floods, heatwaves, and natural disasters, further compound these risks—especially in low- and middle-income countries where infrastructure and preventive measures are limited.



गुरु घासीदास विश्वविद्यालय, बिलासपुर
Guru Ghasidas Vishwavidyalaya, Bilaspur
A Central University established by the Central University Act 2009 No. 25 of 2009



A REVIEW REPORT ON

“Polygraph Testing: Techniques and Legal Implications”

Submitted in the partial fulfillment of the requirement for the award of the Degree of
Bachelor of Science (Hons.) Forensic Science

2022-2025

Submitted by

Ipshita Kashyap

Roll No.: 22045115

Enrollment No.: GGV/22/10315

B.Sc. (Hons.) Forensic Science

Under the guidance of

Ms. Shubhra Shree Gajbhiye

Department of Forensic Science



Department of Forensic Science

Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)



गुरु घासीदास विश्वविद्यालय, बिलासपुर
Guru Ghasidas Vishwavidyalaya, Bilaspur
A Central University established by the Central University Act 2009 No. 25 of 2009



Department of Forensic Science
Guru Ghasidas Vishwavidyalaya, Bilaspur, C.G.

(A Central University established by the Central University Act 2009 No. 25 of 2009)

No. _____/F.Sc/2025

Date:

CERTIFICATE

This is to certify that the mini project entitled "Polygraph Testing: Techniques and Legal Implications" submitted by **Ipshita Kashyap** to Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.), for the award of a B.Sc. Degree in Forensic Science review study under my guidance. I further certify that the review study or part thereof has not formed the basis for the award of any other degree or diploma.

Date: 13/5/25

Place: Bilaspur

S. Gajbhiye
13/5/25
Ms. Shubhra Shree Gajbhiye

Guru Ghasidas Vishwavidyalaya

Bilaspur (C.G.)

Head,
Department of Forensic Science
Guru Ghasidas Vishwavidyalaya
Bilaspur (C.G.)



A Review Paper on
Snake Poisoning-Induced Cerebrovascular Events

B. Sc. Mini project Submitted to
Guru Ghasidas Vishwavidyalaya
Bilaspur (C.G.)

In Partial fulfillment of requirement for the degree of
Bachelor of Science Honors

in
Forensic Science
by

JANHAVI YADAV

B. Sc. VI Semester

Enrollment No: GGV/22/10316

Roll no. - 22045116

UNDER THE GUIDANCE OF

Ms. Shubhra Shree Gajbhiye



Department of Forensic Science
(Session 2022-25)

Guru Ghasidas Vishwavidyalaya Bilaspur (C.G.)



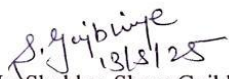
Department of Forensic Science
Guru Ghasidas Vishwavidyalaya Bilaspur (C.G.)
(A Central University Established by the Central University Act, 2009 No. 25 of 2009)

CERTIFICATE

This is to certify that Ms. Janhavi Yadav (Enrollment No.- GGV/22/10316, Roll No. 22045116) has carried out her Under Graduate Review work entitled "Snake Poisoning- Induced Cerebrovascular Events" under the supervision of Dr. Rajat Pratap Singh from the month August to December 2022-25 toward partial fulfillment of degree of Bachelor of Science in Biotechnology.

The work presented in the Review report is original and has not been submitted anywhere else for this or any other degree.

Date - 13-05-25
Place - Bilaspur


Ms. Shubhra Shree Gajbhiye

Head,
Department of Forensic Science
Guru Ghasidas Vishwavidyalaya
Bilaspur (C.G.)



A REVIEW REPORT ON
**EFFECTIVENESS OF INDIVIDUAL POLYGRAPH
COMPONENT IN DECEPTION DETECTION ACROSS
GENDER**

In partial fulfilment of requirements for the degree Of
bachelor of Science Honors
in
Forensic Science

**SUBMITTED BY
KIRAN JENA**

Enrollment no – GGV/22/10317

Roll no. - 22045117

B.Sc. VIth Semester

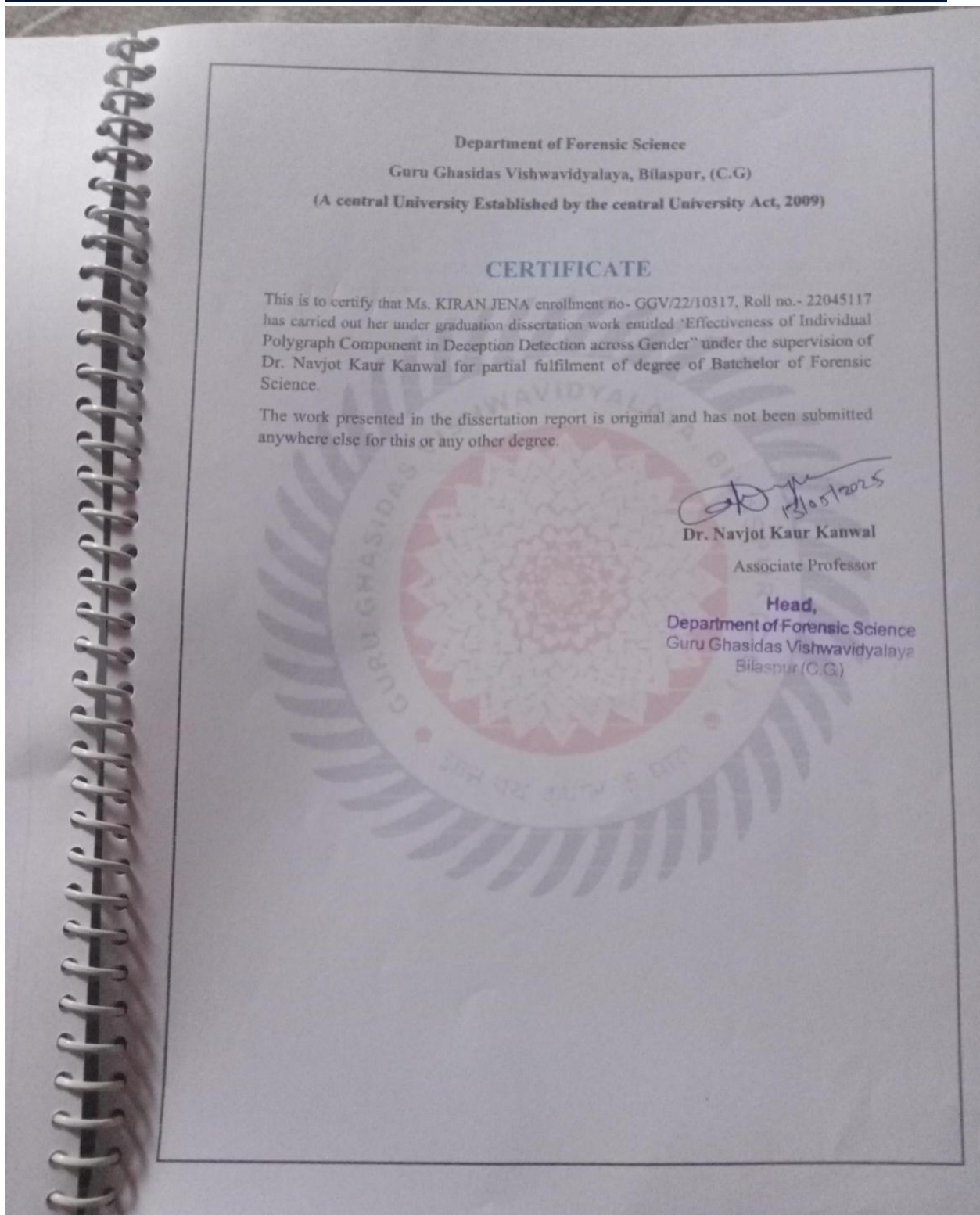
DEPARTMENT OF B.Sc. FORENSIC SCIENCE

UNDER THE GUIDANCE OF

Dr. Navjot Kaur Kanwal (Associate Professor)

DEPARTMENT OF FORENSIC SCIENCE

**GURU GHASIDAS VISHWAVIDYALAYA
BILASPUR, CHATTISHGARH**





THE ROLE OF FORENSIC SCIENCE IN COMBATTING DOPING IN SPORTS

A Review Paper on
ROLE OF FORENSIC IN DOPING

B. Sc. Mini project Submitted to
Guru Ghasidas Vishwavidyalaya
Bilaspur (C.G.)

In Partial fulfillment of requirement for the degree of
Bachelor of Science Honors
in
Forensic Science
By

MANJEET SINGH YADAV

B. Sc. VI Semester

Enrollment No: GGV/22/10320 Roll no. - 22045120

UNDER THE GUIDANCE OF

Miss. LEESHA RANADE



Department of Forensic Science
(Session 2022-25)

Guru Ghasidas Vishwavidyalaya Bilaspur (C.G.)
Department of Forensic Science

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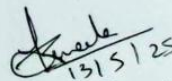
Department of Forensic Science
Guru Ghasidas Vishwavidyalaya Bilaspur (C.G.)
(A Central University Established by the Central University Act, 2009 No. 25 of 2009)

CERTIFICATE

This is to certify that Mr. Manjeet Singh Yadav (Enrollment No.- GGV/22/10320, Roll No. 22045120) has carried out her Under Graduate Review work entitled "Role of Forensic in Doping" under the supervision of Miss. Leesha Ranade from the month January to May 2022-25 toward partial fulfillment of degree of Bachelor of Science in Forensic Science.

The work presented in the Review report is original and has not been submitted anywhere else for this or any other degree.

Date - 13/05/2025
Place - Bilaspur


Miss. Leesha Ranade

Head,
Department of Forensic Science
Guru Ghasidas Vishwavidyalaya
Bilaspur (C.G.)

iv



Department of Forensic Science
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No.F.Sc./2025

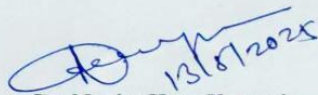
Bilaspur

Date -

Dr. Navjot Kaur Kanwal
Head of Department
Department of Forensic Science
Guru Ghasidas Vishwavidyalaya Bilaspur (C.G.)

FORWARDING CERTIFICATE

This is to certify that Mini project entitled "A Review on Role of Forensic in Doping" has been submitted by Manjeet Singh Yadav, B.Sc. VI Semester, Guru Ghasidas Vishwavidyalaya Bilaspur (C.G.) under the guidance of **Dr. Navjot Kaur Kanwal** towards partial fulfillment of the requirement for the award of Bachelor's Degree in Forensic Science.


13/01/2025

Dr. Navjot Kaur Kanwal
Associate professor
Head of Department
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Guru Ghasidas Vishwavidyalaya
Bilaspur (C.G.)

Head,
Department of Forensic Science
Guru Ghasidas Vishwavidyalaya
Bilaspur (C.G.)



**“Unraveling Organophosphate Toxicity: Effects on Human
Health and Current Management”**



B.Sc Dissertation Submitted to Guru Ghasidas Vishwavidyalaya, Bilaspur

In

Partial fulfillment of requirements for the degree of

Bachelor of Science Honors

In Forensic Science

By

Avinash Sahu

B.Sc VIth Semester

Enrollment No:- GGV/22/10306

Roll No-22045106

UNDER THE GUIDANCE OF **DR. SUDHIR YADAV SIR**

Assistant Professor

Department of Forensic Science

Guru Ghasidas University

Bilaspur (C.G.)

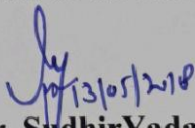


DEPARTMENT OF FORENSIC SCIENCE
Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)
(A Central University)

CERTIFICATE BY SUPERVISOR

Certified that the project entitled " **Unraveling Organophosphate Toxicity: Effects on Human Health and Current Management** " submitted by **AVINASH** is his own work and has been done at Department of Forensic Science, GGV, Bilaspur (C.G.). It is recommended that this project be placed before the examiner for evaluation in the partial fulfilment of the Bachelor's degree in Forensic Science.

Date - 13/05/25


Dr. Sudhir Yadav Sir
Assistant Professor
Department of Forensic Science
Guru Ghasidas Vishwavidyalaya
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Head,
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Guru Ghasidas Vishwavidyalaya
Bilaspur (C.G.)



A Review Paper on
Development of Latent Fingerprint on Thermal Paper

B. Sc. Mini project Submitted to
Guru Ghasidas Vishwavidyalaya
Bilaspur (C.G.)

In Partial fulfillment of requirement for the degree
of Bachelor of Science Honors in
Forensic Science

By

SUNIDHI YADU

B. Sc. VI Semester

Enrollment No: GGV/22/10330

Roll no. – 22045130

UNDER THE GUIDANCE OF

Miss Blessi Uikey

Assistant Professor



Department of Forensic Science
(Session 2022-25)

Guru Ghasidas Vishwavidyalaya Bilaspur (C.G.)



Department of Forensic Science
Guru Ghasidas Vishwavidyalaya Bilaspur (C.G.)
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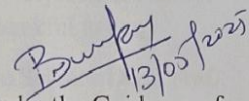
CERTIFICATE

This is to certify that Sunidhi Yadu (Enrollment No.- GGV/22/10330, Roll No. 22045130) has carried out her Under Graduate Review work entitled "Development of Latent Fingerprint on Thermal Paper" under the supervision of Miss Blessi Uikey from 2022-25 toward partial fulfillment of degree of Bachelor of Science in Forensic Science.

The work presented in the Review report is original and has not been submitted anywhere else for this or any other degree.

Date - 13/05/2025

Place - Bilaspur


Under the Guidance of
Miss Blessi Uikey
Assistant Professor




Department of Forensic Science
Guru Ghasidas Vishwavidyalaya Bilaspur (C.G.)
(A Central University Established by the Central University Act, 2009 No. 25 of 2009)

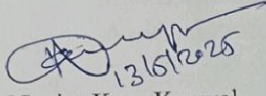
No. /F.Sc./2025
Date - 13/05/2025

Bilaspur

Dr. Navjot Kaur Kanwal
Head of Department
Department of Forensic Science
Guru Ghasidas Vishwavidyalaya Bilaspur (C.G.)

FORWARDING CERTIFICATE

This is to certify that Mini project entitled "Development of Latent Fingerprint on Thermal Paper" has been submitted by **Sunidhi Yadu**, B.Sc. VI Semester, Guru Ghasidas Vishwavidyalaya Bilaspur (C.G.) under the guidance of **Dr. Navjot Kaur Kanwal** towards partial fulfillment of the requirement for the award of Bachelor's Degree in Forensic Science.


13/5/2025
Dr. Navjot Kaur Kanwal
Associate Professor
Head of Department
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Guru Ghasidas Vishwavidyalaya
Bilaspur (C.G.)


Department of Forensic Science
Guru Ghasidas Vishwavidyalaya
Bilaspur (C.G.)

dhi yadu May 17, 2025, 17:55



**"Evaluating Immunomediators as Predictive Biomarkers for the
Duration of Diazepam Misuse"**

A

B.Sc. Mini project

Submitted to

Guru Ghasidas Vishwavidyalaya, Bilaspur

In partial fulfillment of the requirement for the

Degree of

Bachelor of Science

In

Forensic Science

By

Ms. Amisha Patel

(En. No :- GGV/22/10303 ; Roll.No :- 22045103)

Under the Guidance of

Dr. Ajay Amit

Assistant Professor

Department of Forensic Science



GURU GHASIDAS VISHWAVIDYALAYA

A Central University

Bilaspur (C.G.), 2025



Department of Forensic Science
Guru Ghasidas Vishwavidyalaya
(A Central University Established Under the Central Universities Act, 25 of 2009)
Bilaspur, Chhattisgarh, India

No...../F. Sc. 2022
Date:

Bilaspur

CERTIFICATE

This is to certify that the mini project entitled "Evaluating Immunomediator as Predictive Biomarkers for the Duration of Diazepam Misuse" Submitted by Ms. Amisha Patel to Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.) for the award of B.Sc. degree in Forensic Science review study done by her under my guidance. I further certify that review study or part of there has not formed the basis for the award of any other degree or diploma.


Dr. Ajay Amit

Assistant professor

Department of Forensic science
Guru Ghasidas Vishwavidyalaya
Koni, Bilaspur Chhattisgarh

Date: -

Place: - Bilaspur



Department of Forensic Science

Guru Ghasidas Vishwavidyalaya
(A Central University Established Under the Central Universities Act, 25 of 2009)
Bilaspur, Chhattisgarh, India

No. /F.Sc./2022

Bilaspur

Date:

Dr. Navjot Kaur Kanwal Mam
Head of Department (HOD)
Department of Forensic Science
Guru Ghasidas Vishwavidyalaya
Bilaspur (C.G.)

FORWARDING CERTIFICATE

This is to certify that the Mini project entitled "Evaluating Immunomediators as Predictive Biomarkers for the Duration of Diazepam Misuse" has been submitted by Ms. Amisha Patel, B.Sc. Forensic Science 6th semester, Guru Ghasidas Vishwavidyalaya, Koni, Bilaspur (C.G.) under the guidance of Dr. Ajay Amit towards partial fulfillment of the requirements for the award of Bachelor's Degree in Forensic science.


13/5/2025

Dr. Navjot Kaur Kanwal Mam
Head of Department (HOD)
Department of Forensic Science
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Bilaspur (C.G.)

Head,
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Guru Ghasidas Vishwavidyalaya
Bilaspur (C.G.)



"Application of machine learning in fingerprint image enhancement and recognition"

A

B.Sc. Mini project

Submitted to

Guru Ghasidas Vishwavidyalaya, Bilaspur

In partial fulfillment of the requirement for the

Degree of

Bachelor of Science

In

Forensic Science

By

Ms. Manshi Shukla

(En. No:- GGV/22/10321; Roll No.: 22045121)

Under the guidance of

Dr. Navjot Kaur Kanwal

Associate Professor

Department of Forensic Science



GURU GHASIDAS VISHWAVIDYALAYA

A Central University

Bilaspur (C.G.)

Session : 2024-2025



Department of Forensic Science
Guru Ghasidas Vishwavidyalaya
(A Central University Established Under the Central Universities Act, 25 of 2009)
Bilaspur, Chhattisgarh, India

No...../F. Sc./2022
Date:

Bilaspur

CERTIFICATE

This is to certify that the mini project entitled “ **Application of machine learning in fingerprint image enhancement and recognition** ” Submitted by Ms. Manshi Shukla to Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.) for the award of B.Sc. degree in Forensic Science review study done by her under my guidance. I further certify that review study or part of there has not formed the basis for the award of any other degree or diploma.

Dr. Navjot Kaur Kanwal

(Associate professor)

Department of Forensic science
Guru Ghasidas Vishwavidyalaya Koni,
Bilaspur Chhattisgarh

Date: -

Place: - Bilaspur

Head,
Department of Forensic Science
Guru Ghasidas Vishwavidyalaya
Bilaspur (C.G.)



Abstract

Biometric traits, particularly fingerprints, offer a highly reliable method for identity verification due to their uniqueness and permanence. As one of the most established and widely used biometric techniques, fingerprint recognition has evolved significantly with advancements in artificial intelligence (AI) and computational technologies. Today, fingerprint-based systems are integral to diverse applications, from mobile authentication to large-scale security infrastructures.

A typical fingerprint recognition system involves multiple stages: image acquisition, preprocessing, enhancement, feature extraction, and matching. Preprocessing techniques improve raw fingerprint quality by reducing noise and standardizing input, while enhancement algorithms clarify ridge and valley structures for better feature discernibility. Following enhancement, distinctive features such as minutiae are extracted and compared against stored templates for identification.

Despite technological progress, challenges such as low-quality images, partial prints, and environmental distortions persist, affecting system accuracy. This paper reviews contemporary fingerprint recognition techniques, evaluates their performance, and discusses key challenges and future research directions.

Keywords:-Fingerprint recognition, preprocessing, image enhancement, feature extraction, biometric authentication.



Page | I

A DISSERTATION

A Comprehensive Study on Lip Print Patterns
partial fulfillment of the requirement for the degree of
BACHELOR OF SCIENCE HONORS IN FORENSIC SCIENCE



GURU GHASIDAS VISHWAVIDYALAYA

(A CENTRAL UNIVERSITY)

BY

UFFAIZ NAZIR

BSc. (VI Semester)

(Enrollment no. GGV/22/10334, Roll no. 22045134)

UNDER THE GUIDANCE OF MISS LEESHA RANADE

DEPARTMENT OF FORENSIC SCIENCE



GURU GHASIDAS VISHWAVIDYALAYA
DEPARTMENT OF FORENSIC SCIENCE

GURU GHASIDAS VISHWAVIDYALAYA

(a central university established by central university act 2009 NO. 25 of 2009)

CERTIFICATE

This is certifying that the dissertation entitled "A Comprehensive Study on Lip Print Patterns" is based on the original work done by Mr. UFFAIZ NAZIR, Department of FORENSIC SCIENCE, Guru Ghasidas Vishwavidyalaya Koni Bilaspur, 495009(C.G.), under my supervision and this has not previously formed the basis for the award of any degree, diploma, associate ship, fellowship or any other similar title and it represents entirely an independent work of the part of the candidate

Miss. Leesha Ranade


(Signature of Supervisor)

Head,
Department of Forensic Science
Guru Ghasidas Vishwavidyalaya
Bilaspur (C.G.)



ABSTRACT

Criminal investigations endeavor physical evidence analysis for personal identification to prove the presence or involvement of a suspect in a criminal act. Forensic investigators have long been using lip prints as a potential source to identify an individual in the absence of fingerprints or DNA evidence at the crime scene, especially in kidnapping cases. Lip prints are inimitable like fingerprints and classifiable into various forms that enable individualization. In past decades, numerous demographic studies have been undertaken to substantiate the importance of lip prints as corroborative physical evidence. An extensive literature review emphasized the need to reform the classification system of lip prints and study the effect of habitual and pathological conditions on the consistency of lip prints. The present study attempted to formulate an alternative system to classify lip prints and identify various minutiae to enhance the former Individual classification of lip patterns. Lip print patterns, characteristic of smokers and tobacco chewers, were also carefully analyzed. Additionally, various oral diseases and their effect on lip prints' stability were studied in detail. Lip print samples were collected from 500 healthy individuals, 50 smokers, 50 tobacco chewers, and 50 dermatology patients and digitalized for their critical analysis. A novel classification system based on Basic and Combination patterns of lip wrinkles was devised in the present study. Twenty-five new Individual features were identified and added to the former Individual classification system given by Kasprzak. Specific lip patterns like Whorl-like pattern, Firework-like pattern and Curved Short Ridges were significantly observed as characteristic patterns in Smokers and tobacco chewers. Moreover, the eruption of various non-cancerous oral pathological conditions was found to hamper the pattern of the lip wrinkles and grooves temporarily and recovered to the original form after healing. All these findings are expected to support individualization and personal identification processes in Forensics.



A Review Paper on
Recent Advancements of Scientific Techniques in Forensic Science

B. Sc. Mini project Submitted to
Guru Ghasidas Vishwavidyalaya
Bilaspur (C.G.)

In Partial fulfilment of requirement for the degree of
Bachelor of Science Honors
in
Forensic Science
By

SHRUTI MISHRA

B. Sc. VI Semester

Enrollment No: GGV/22/10328 Roll no. - 22045128

UNDER THE GUIDANCE OF

MISS. BLESSI UIKEY

Assistant Professor



Department of Forensic Science
(Session 2022-25)

Guru Ghasidas Vishwavidyalaya Bilaspur (C.G.)



Guru Ghasidas Vishwavidyalaya Bilaspur (C.G.)
(A Central University Established by the Central University Act, 2009 No. 25 of 2009)

CERTIFICATE

This is to certify that MISS. SHRUTI MISHRA (Enrollment No.- GGV/22/10328, Roll No. 22045128) has carried out her Under Graduate Review work entitled " **Recent Advancements of Scientific Techniques in Forensic Science** " under the supervision of MISS. BLESSI UIKEY toward partial fulfillment of degree of Bachelor of Forensic Science.

The work presented in the Review report is original and has not been submitted anywhere else for this or any other degree.

Date - 13/05/2025
Place - Bilaspur

Blessi UIKEY
13/05/2025
Miss BLESSI UIKEY
Assistant Professor



ABSTRACT

The use of technology in criminal investigations has revolutionized the methods used by law enforcement agencies and significantly improved their capacity to solve crimes. This study examines the substantial impact that advancements in forensic science and digital technology have on criminal investigations by tracking their evolution and evaluating their application in contemporary practice. Since they have all transformed the collection and assessment of evidence, the use of different types of surveillance technology, digital forensics, artificial intelligence, biosensors for fingerprint analysis, carbon dot powders, DNA phenotyping, Drone forensics, Foldscope microscope, omics techniques, proteomes and DNA analysis are significant discussion points. The challenges and limitations posed by these technical advancements are also covered in this essay, including issues with dependability, privacy ethics, and the potential for digital injustices. Besides these the advancements in crime scene management and their statistics are being covered in this review.

The forensic sciences now have many state-of-the-art tools, devices, and applications thanks to technological advancements. These provide forensics a better and more accurate understanding of the crime scene, better and optimal data and information acquisition, and faster processing, which leads to more reliable conclusions and significantly improves the scientific investigation of crime. The technical developments, their effects, and the difficulties forensic experts encounter when utilizing and putting into practice these technologies as instruments to support their field and lab investigations. These advancements of scientific techniques not only improves the crime scene assessment, but also add to the values of physical as well as trace evidences. The study is relevant because forensic expert activity in terms of forensic examinations has changed so much that traditional difficulties in some sectors cannot be solved by current theoretical provisions; instead, new theoretical and practical techniques are needed to solve them. In this context, the goal of this research is to examine the substance of novel approaches to forensic exams, such as criminalistic ones, and the potential for their successful use in forensic expert work. The dialectical method of scientific knowledge serves as the study's methodological foundation, enabling the writers to take into account the theoretical, scientific, and practical underpinnings of contemporary forensic examination trends, including criminalistic ones. It also aided in identifying promising areas of study that are essential to preventing crime. Thus, the following cutting-edge domains were highlighted by the authors: polygraph, odor and trace evidence analysis, biometric and computer forensic analysis. The article's contents are useful to law enforcement organizations, criminologists, and forensic specialists.



**"COMPARATIVE STUDIES ON DIFFERENCE BETWEEN SALIVA OF SMOKERS
AND NON-SMOKERS"**

A

B.Sc. Mini project

Submitted to

Guru Ghasidas Vishwavidyalaya, Bilaspur

In partial fulfilment of the requirement for the

Degree of

Bachelor of Science

In

Forensic Science

By

Ms. Sanskriti Sharma

(En. No. - GGV/22/10324; Roll No. - 22045124)

Under the Guidance of

Dr. Navjot Kaur Kanwal

Head, Department of Forensic Science



GURU GHASIDAS VISHWAVIDYALAYA

A Central University

Bilaspur (C.G.), 2024



Department of Forensic Science
Guru Ghasidas Vishwavidyalaya

(A Central University Established Under the Central Universities Act, 25 of 2009)
Bilaspur, Chhattisgarh, India

No...../F. Sc./2025
Date: 13/05/25

Bilaspur

CERTIFICATE

This is to certify that the mini project entitled “Comparative Study on the Differences Between the Saliva of Smokers and Non-Smokers” Submitted by Ms. Sanskriti Sharma to Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.) for the award of B.Sc. degree in Forensic Science review study done by her under my guidance. I further certify that review study or part of there has not formed the basis for the award of any other degree or diploma.

13/05/2025

Dr. Navjot Kaur Kanwal

Associate Professor and Head
Department of Forensic science
Guru Ghasidas Vishwavidyalaya
Koni, Bilaspur Chhattisgarh

Date: - 13/05/25

Place: - Bilaspur

Head,
Department of Forensic Science
Guru Ghasidas Vishwavidyalaya
Bilaspur (C.G.)



Department of Forensic Science
Guru Ghasidas Vishwavidyalaya
(A Central University Established Under the Central Universities Act, 25 of 2009)
Bilaspur, Chhattisgarh, India

No /F.Sc./2025

Bilaspur

Date: 13/5/25

Dr. Navjot Kaur Kanwal

Associate Professor and Head

Department of Forensic Science

Guru Ghasidas Vishwavidyalaya

Bilaspur (C.G.)

FORWARDING CERTIFICATE

This is to certify that the Mini project entitled “Comparative Study on the Differences Between the Saliva of Smokers and Non-Smokers” has been submitted by Ms. Sanskriti Sharma, B.Sc. Forensic Science 6th semester, Guru Ghasidas Vishwavidyalaya, Koni, Bilaspur (C.G.) under the guidance of Dr. Navjot Kaur Kanwal towards partial fulfilment of the requirements for the award of Bachelor's Degree in Forensic science.



Dr. Navjot Kaur Kanwal

Associate Professor and Head

Department of Forensic Science

Guru Ghasidas Vishwavidyalaya

Bilaspur (C.G.)

Head,

Department of Forensic Science

Guru Ghasidas Vishwavidyalaya

Bilaspur (C.G.)



Department of Forensic Science
(Session 2022-25)
Guru Ghasidas Vishwavidyalaya Bilaspur (C.G.)



A Review Paper on
“NICOTINE AS AN IMMUNOMODULATOR
:FRIEND OR FOE”

B. Sc. Mini project Submitted to
Guru Ghasidas Vishwavidyalaya
Bilaspur (C.G.)

In Partial fulfillment of requirement for the degree of
Bachelor of Science Honors in
Forensic Science

By
SHRUTI SINGH
B. Sc. VI Semester
Enrollment No: GGV/22/10329
Roll no. - 22045129

UNDER THE GUIDANCE OF
MISS BLESSI N UIKEY
Assistant Professor

1

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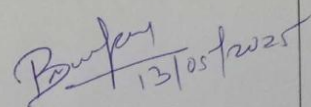
Guru Ghasidas Vishwavidyalaya Bilaspur
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Central University Act, 2009 No. 25 of 2009)

CERTIFICATE

This is to certify that MISS. SHRUTI SINGH (Enrollment No.- GGV/22/10329, Roll No. 22045129) has carried out her Under Graduate Review work entitled "NICOTINE AS AN IMMUNOMODULATOR : FRIEND OR FOE" under the supervision of Miss Blessi N Uikey for partial fulfillment of degree of Bachelor of Science in Biotechnology.

The work presented in the Review report is original and has not been submitted anywhere else for this or any other degree.

Date - 13-05-2025
Place-Bilaspur


Miss Blessi N Uikey
Assistant Professor

3

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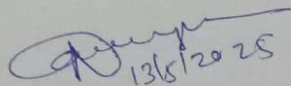
Department of Forensic Science
Guru Ghasidas Vishwavidyalaya Bilaspur (C.G.)
(A Central University Established by the Central
University Act, 2009 No. 25 of 2009)

No. /F.Sc./2025
Bilaspur

Date –
Dr. Navjot Kaur Kanwal
Head of Department
Department of Forensic Science
Guru Ghasidas Vishwavidyalaya
Bilaspur (C.G.)

FORWARDING CERTIFICATE

This is to certify that Mini project entitled "NICOTINE AS AN IMMUNOMODULATOR : FRIEND OR FOE " has been submitted by SHRUTI SINGH , B.Sc. VI Semester, Guru Ghasidas Vishwavidyalaya Bilaspur (C.G.) under the guidance of **Miss Blessi N Uikey** towards partial fulfillment of the requirement for the award of Bachelor's Degree in Forensic Science.


13/5/2025

Dr. Navjot Kaur Kanwal professor
Head of Department
Department of Forensic Science
Guru Ghasidas Vishwavidyalaya
Bilaspur (C.G.)

Head,
Department of Forensic Science
Guru Ghasidas Vishwavidyalaya
Bilaspur (C.G.)

2

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A Review Paper on
ILLEGAL WILDLIFE TRADE

B. Sc. Mini project Submitted to
Guru Ghasidas Vishwavidyalaya Bilaspur (C.G)
In Partial fulfillment of requirement for the degree of
Bachelor of Science Honors in
Forensic Science

By

SHIVAM SHIKARI

B. Sc. VI Semester

Enrollment No: GGV/22/10327 Roll no. - 22045127

UNDER THE GUIDANCE OF

Miss. LEESHA RANADE



Department of Forensic Science
(Session 2022-25)

Guru Ghasidas Vishwavidyalaya Bilaspur (C.G)
Department of Forensic Science

1



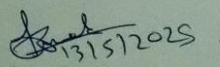
Department of Forensic Science
Guru Ghasidas Vishwavidyalaya Bilaspur (C.G.)
(A Central University Established by the Central University Act, 2009 No. 25 of 2009)

CERTIFICATE

This is to certify that Mr. Shivam Shikari (Enrollment No.- GGV/22/10327, Roll No. 22045127) has carried out her Under Graduate Review work entitled "Illegal Wildlife Trade" under the supervision of Miss. Leesha Ranade from the month January to May 2022-25 toward partial fulfillment of degree of Bachelor of Science in Forensic Science.

The work presented in the Review report is original and has not been submitted anywhere else for this or any other degree.

Date - 13/05/2025
Place - Bilaspur


Miss. Leesha Ranade

Head,
Department of Forensic Science
Guru Ghasidas Vishwavidyalaya
Bilaspur (C.G.)





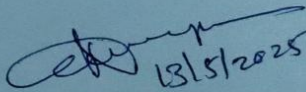
Guru Ghasidas Vishwavidyalaya Bilaspur (C.G.)
(A Central University Established by the Central University Act, 2009 No. 25 of 2009)

No. /F.Sc./2025 Bilaspur Date –

Dr. Navjot Kaur Kanwal
Head of Department
Department of Forensic Science
Guru Ghasidas Vishwavidyalaya Bilaspur (C.G.)

FORWARDING CERTIFICATE

This is to certify that Mini project entitled “A Review on Illegal Wildlife Trade” has been submitted by SHIVAM SHIKARI, B.Sc. VI Semester, Guru Ghasidas Vishwavidyalaya Bilaspur (C.G.) under the guidance of **MRS. NAVJOT KAUR KANWAL** towards partial fulfillment of the requirement for the award of Bachelor’s Degree in Forensic Science.


13/5/2025
Dr. Navjot Kaur Kanwal
(ASSISTANT PROFESSOR)
Head of Department
Department of Forensic Science
Guru Ghasidas Vishwavidyalaya Bilaspur (C.G.)
Head,
Department of Forensic Science
Guru Ghasidas Vishwavidyalaya
Bilaspur (C.G.)



A Review Paper on
Methyl Fentanyl As a Designer Drugs

B. Sc. Mini project Submitted to
Guru Ghasidas Vishwavidyalaya
Bilaspur (C.G.)

In Partial fulfillment of requirement for the degree of
Bachelor of Science Honors
in
Forensic Science
By

KRIPALU

B. Sc. VI Semester

Enrollment No: GGV/22/10318 Roll no. - 22045118

UNDER THE GUIDANCE OF

Dr. Chanchal Kumar
Assistant Professor



Department of Forensic Science
(Session 2022-25)

Guru Ghasidas Vishwavidyalaya Bilaspur (C.G.)



Department of Forensic Science
Guru Ghasidas Vishwavidyalaya Bilaspur (C.G.)
(A Central University Established by the Central University Act, 2009 No. 25 of 2009)

CERTIFICATE

This is to certify that Kripalu (Enrollment No.- GGV/22/10318, Roll No. 22045118) has carried out her Under Graduate Review work entitled "Methyl Fentanyl as a Designer Drugs" under the supervision of Dr. Chanchal Kumar from 2022-25 toward partial fulfillment of degree of Bachelor of Science in Forensic Science.

The work presented in the Review report is original and has not been submitted anywhere else for this or any other degree.

Date - 13/05/2025
Place - Bilaspur


Under the Guidance of
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ABSTRACT

Methyl fentanyl, a highly potent analog of fentanyl, represents a significant challenge in forensic toxicology due to its extreme potency and difficulty of detection. Emerging in the 1980s under street names like "China White" and "Dragon," methyl fentanyl is hundreds to thousands of times more powerful than morphine. This synthetic opioid acts on mu-opioid receptors in the brain and spinal cord, leading to profound central nervous system depression. Its metabolism via CYP3A4 and rapid clearance from the body complicate toxicological analyses. Detection typically requires sensitive techniques such as LC-MS/MS and GC-MS, often following solid phase extraction. Forensic cases have highlighted its lethal potential, with post-mortem findings including cyanosis, pulmonary edema, and low nanogram-per-milliliter concentrations in blood. The increasing prevalence of methyl fentanyl in illicit drug markets underscores the urgent need for advanced detection tools and heightened awareness among forensic professionals.

Keywords :- Methyl fentanyl Fentanyl analogs Synthetic opioids Designer drugs Forensic toxicology Opioid overdose LC-MS/MS GC-MS Mu-opioid receptor Alpha-methyl fentanyl Post-mortem toxicology CYP3A4 metabolism Illicit drugs Solid phase extraction Drug detection methods



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A Review Report On

Medico legal aspects of tramadol ABUSE

B.SC. mini project submitted to

GURU GHASHIDAS VISHWAVIDYALAYA

BILASPUR (C.G.)

In Partial fulfillment of requirements for the degree of

Bachelor of science honors

In

Forensic science

BY

ARYA PANDEY

B.SC. VITH SEMESTER

Enrollment No. : SGV/22/10305

ROLL NO. :- 22045105

UNDER THE GUIDENCE OF

DR.SUDHIR YADAV

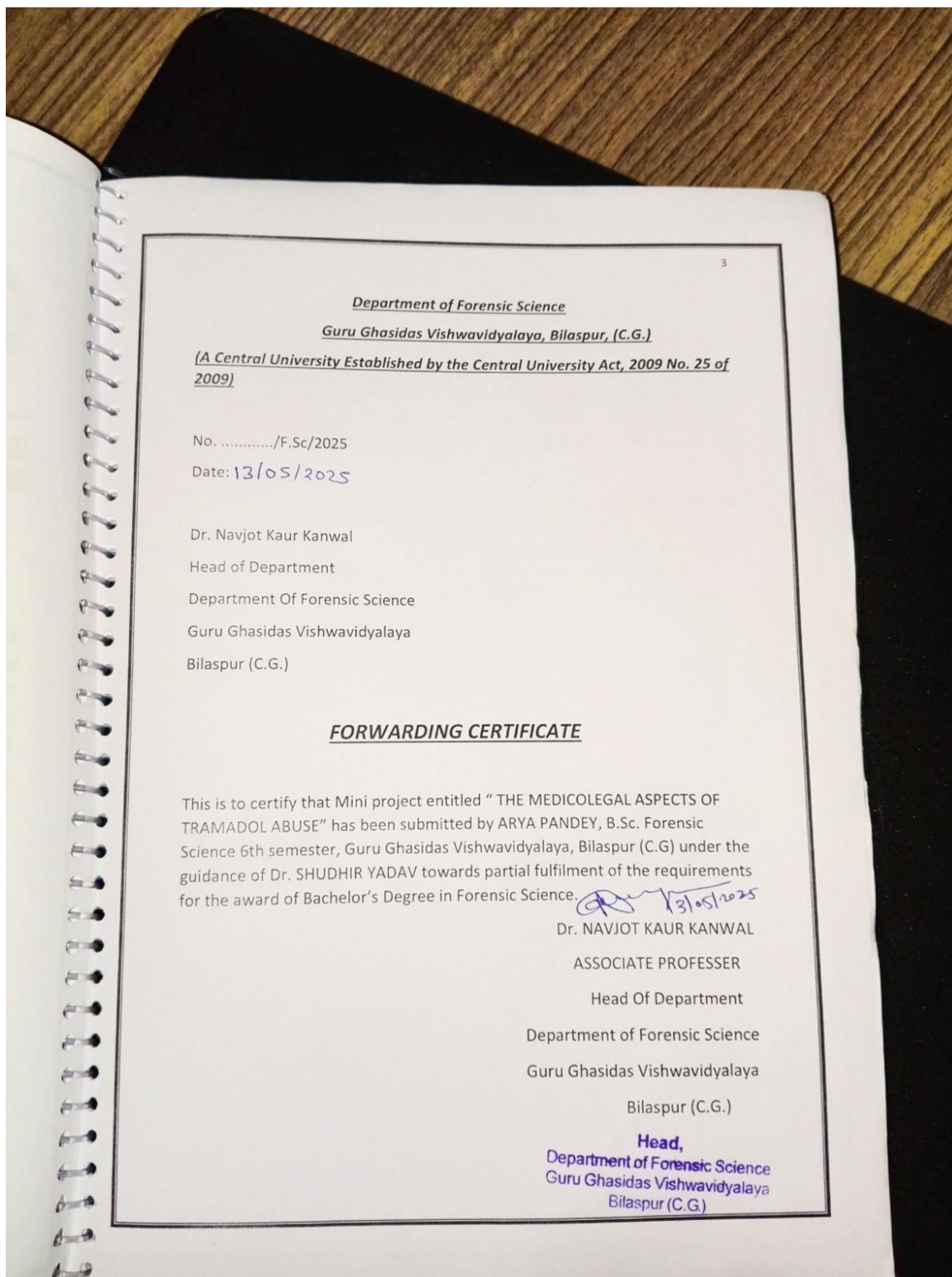
ASSISTANT PROFESER



DEPARTMENT OF FORENSIC SCIENCE

Guru Ghasidas Vishwavidyalaya, Bilaspur, (C.G.)







गुरु घासीदास विश्वविद्यालय, बिलासपुर
Guru Ghasidas Vishwavidyalaya, Bilaspur
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A REVIEW REPORT

On

“EXPLORING THE ROLE OF RSID KITS IN FORENSIC BIOLOGY FOR DIFFERENT BIOLOGICAL EVIDENCES”

B.Sc. Dissertation Submitted to Guru Ghasidas Vishwavidyalaya, Bilaspur

In

Partial fulfilment of the requirement for the Degree of
Bachelor of Science Hons

In

Forensic Science

By

RISHAV RANJAN

B. Sc VIth Semester

Enrollment No: - GGV/22/10322

Roll No: - 22045122

UNDER THE GUIDANCE OF

DR. AJAY AMIT

Assistant Professor

Department of Forensic Science



2024-2025

DEPARTMENT OF FORENSIC SCIENCE
GURU GHASIDAS VISHWAVIDYALAYA, BILASPUR, C.G.



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CERTIFICATE

This is to certify that Mr. **Rishav Ranjan** (Enrollment No.- GGV/22/10322, Roll No. 20045122) has carried out her Under Graduate dissertation work entitled "EXPLORING THE ROLE OF RSID KITS IN FORENSIC BIOLOGY FOR DIFFERENT BIOLOGICAL EVIDENCES" under the supervision of Dr. AJAY AMIT from the month March to May 2025 toward partial fulfillment degree of Bachelor of Forensic Science.

The work presented in the dissertation report is original and has not been submitted anywhere else for this or any other degree.

Date: 13/5/2025
Place: Bilaspur

Dr. Ajay Amit
Assistant Professor



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No. /F.Sc./2025

Bilaspur

Date -

Dr. Navjot Kaur Kanwal

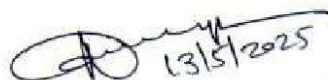
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Department of Forensic Science

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FORWARDING CERTIFICATE

This is to certify that Mini project entitled "EXPLORING THE ROLE OF RSID KITS IN FORENSIC BIOLOGY FOR DIFFERENT BIOLOGICAL EVIDENCES" has been submitted by RISHAV RANJAN, B.Sc. VI Semester, Guru Ghasidas Vishwavidyalaya Bilaspur (C.G) under the guidance of **Dr. AJAY AMIT** partial fulfillment of the requirement for the award of Bachelor's Degree in Forensic Science.

 13/5/2025

Dr. Navjot Kaur Kanwal

(Associate Professor)

Head of Department

Department of Forensic Science

Guru Ghasidas Vishwavidyalaya

Bilaspur (C.G.)

Head,
Department of Forensic Science
Guru Ghasidas Vishwavidyalaya
Bilaspur (C.G.)



**Assessment of the Lost Mobile Phones data
generated through CEIR Portal Data and an
attempt to Develop GPS Location App for Mobile
Phone Tracking**

M.Sc. Dissertation Submitted at Guru Ghasidas Vishwavidyalaya, Bilaspur in Partial
Fulfilment of The Requirement for The Degree Of

Master of Science

In

Forensic Science

By

SNEHA A K

(ENROLLMENT NO. -GGV/23/10426 ROLL NO.- 23046136)

Under The Guidance Of

Dr. Navjot Kaur Kanwal

(Associate Professor)

Department Of Forensic Science

Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)



GURU GHASIDAS VISHWAVIDYALAYA

A CENTRAL UNIVERSITY

BILASPUR (C.G.)

2025



Department of Forensic Science
Guru Ghasidas Vishwavidyalaya
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of 2009)
Bilaspur, Chhattisgarh, India

No. 1067 / F.Sc. / 2025
Date: 23/05/2025

CERTIFICATE

This is to certify that research work embodied in this thesis entitled, "Assessment of the Lost Mobile Phones data generated through CEIR Portal Data and an attempt to Develop GPS Location App for Mobile Phone Tracking", was carried out by SNEHA A K, M.Sc. IVth Semester, Department of Forensic Science, Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.) for partial fulfilment of M.Sc. degree in Forensic Science to be awarded by Guru Ghasidas Vishwavidyalaya. This research work has been carried out under my supervision. It is further certified that the work is original and the dissertation or part thereof has not formed the basis for the award of any other degree or diploma.

Dr. Navjot Kaur Kanwal
Associate Professor
Guru Ghasidas Vishwavidyalaya
(Supervisor)

Place: Bilaspur

Date: 23/05/2025



Department of Forensic Science

Guru Ghasidas Vishwavidyalaya

(A Central University Established Under the Central Universities Act, 25
of 2009)

Bilaspur, Chhattisgarh, India

No. 1067 / F.Sc. / 2025
Date 23.10.2025

FORWARDING CERTIFICATE

This is to certify that research work embodied in this thesis entitled, "Assessment of the Lost Mobile Phones data generated through CEIR Portal Data and an attempt to Develop GPS Location App for Mobile Phone Tracking", was carried out by SNEHA A K, M.Sc. IVth Semester, Department of Forensic Science, Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.) for partial fulfilment of M.Sc. degree in Forensic Science to be awarded by Guru Ghasidas Vishwavidyalaya.

Dr. Navjot Kaur Kanwal

HOD

Guru Ghasidas Vishwavidyalaya
(Supervisor)

Place: Bilaspur
Date 23/10/2025



A Review Paper on
"ECO-FORENSICS" THE USE OF HERBAL
POWDERS FOR LATENT PRINTS
DEVELOPMENT

B. Sc. Mini project Submitted to
Guru Ghasidas Vishwavidyalaya
Bilaspur (C.G.)

In Partial fulfillment of requirement for the degree of
Bachelor of Science Honors
in
Forensic Science

By
TEJASWANI DUBEY

B. Sc. VI Semester
Enrollment No: GGV/22/10333 Roll no. - 22045133

UNDER THE GUIDANCE OF
MISS BLESSI N UIKEY
Assistant Professor



Department of Forensic Science
(Session 2022-25)
Guru Ghasidas Vishwavidyalaya Bilaspur (C.G.)



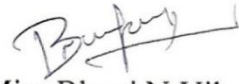
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CERTIFICATE

This is to certify that Mr. Tejaswani Dubey (Enrollment No.- GGV/22/10333, Roll No. 22045133) has carried out her Under Graduate Review work entitled " ECO-FORENSICS" THE USE OF HERBAL POWDERS FOR LATENT PRINTS DEVELOPMENT " under the supervision of Miss Blessi N Uikey for partial fulfillment of degree of Bachelor of Science in Biotechnology.

The work presented in the Review report is original and has not been submitted anywhere else for this or any other degree.

Date - 13/05/2025
Place-Bilaspur


Miss Blessi N Uikey
Assistant Professor



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No. /F.Sc./2025

Bilaspur

Date -

Dr. Navjot Kaur Kanwal

Head of Department

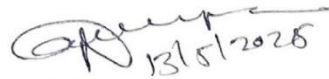
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This is to certify that Mini project entitled "ECO-FORENSICS" THE USE OF HERBAL POWDERS FOR LATENT PRINTS DEVELOPMENT" has been submitted by TEJASWANI DUBEY, B.Sc. VI Semester, Guru Ghasidas Vishwavidyalaya Bilaspur (C.G.) under the guidance of Miss Blessi N Uikey towards partial fulfillment of the requirement for the award of Bachelor's Degree in Forensic Science.


13/5/2025

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Head of Department
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Head,
Department of Forensic Science
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2



FORENSIC ANALYSIS OF CARISOPRODOL

A Mini Project

Submitted in partial fulfillment of the requirements for the award of the

BSC Hon's

In

FORENSIC SCIENCE

by

TAMANNA KUMARI

Under the Guidance

Of

Dr. AJAY AMIT
Assistant Professor



DEPARTMENT OF FORENSIC SCIENCE

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(A Central University Established by the Central University Act 2009 No.25 of 2009)

2024-25


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(A Central University Established by the Central University Act 2009 No. 25 of 2009)

Session 2024-2025



CERTIFICATE

This is to certify the mini project work entitled "**FORENSIC ANALYSIS OF CARISOPRODOL**" presented by **Tamanna Kumari** (22045132), students of Bsc Hon's VI semester, Forensic Science Department, GURU GHASIDAS VISHWAVIDYALAYA, has been completed successfully and satisfactorily.

This project report is submitted in partial fulfillment of the requirement for the award of the Degree of Bachelor of Forensic Science, GURU GHASIDAS VISHWAVIDYALAYA, Bilaspur (C.G).

We wish success in all future endeavors to graduating students.

Signature.....*[Signature]* 19/5/2025

Dr. AJAY AMIT

Assistant Professor (Supervisor)



ABSTRACT

Carisoprodol is a centrally acting muscle relaxant widely prescribed for the short-term treatment of acute musculoskeletal conditions. Originally introduced in 1959 under brand names such as *Soma* and *Carisoma*, it rapidly gained popularity due to its fast-acting analgesic and sedative effects. However, its active metabolite, meprobamate, possesses addictive potential, raising significant concerns regarding its misuse, dependency, and withdrawal symptoms.

This mini project presents a comprehensive forensic analysis of Carisoprodol, focusing on its pharmacological action, physical and chemical properties, metabolism, clinical effects, toxicology, and postmortem findings. The study also reviews street names, routes of abuse, and adverse reactions as recognized by the World Health Organization. Special attention is given to detection methods and analytical techniques like GC-MS, LC-MS/MS, HPLC, and TLC used in forensic and clinical toxicology.

Furthermore, the report discusses case studies and postmortem toxicological findings, highlighting Carisoprodol's significance in drug-facilitated crimes and its classification as a Schedule IV controlled substance. This project emphasizes the need for regulated usage, proper forensic evaluation, and public awareness regarding its abuse potential.

Keywords: Carisoprodol, Meprobamate, Muscle Relaxant, CNS Depressant, Forensic Toxicology, Drug Abuse, Analytical Techniques, Postmortem Detection.



A Review report on
**ANALYTICAL APPROACHES FOR DETECTION OF MEAT
ADULTERATION**

BSc Mini project Submitted to
GURU GHASIDAS VISHWAVIDYALAY BILASPUR CG

In partial fulfillment of requirements for the degree of
Bachelor of Science Honors

In
Forensic Science

By
AKANKSHA SINGH

B.Sc. VI Semester

Enrollment No. - GGV/22/10302 Roll No. - 22045102

Under the guidance of
MISS SHUBHRA SHREE GAJBHIYE



Department of Forensic Science
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CERTIFICATE

This is to certify that AKANKSHA SINGH (Enrollment no. GGV/22/10302 Roll No. 22045102) has carried out her Under Graduate dissertation work entitled "A Review on Species Identification in Adulterated Meat" under the supervision of MISS SHUBHRA SHREE GAJBHIYE for partial fulfilment of Degree of BACHERLOR OF FORENSIC SCIENCE.

The work presented in the dissertation report is original and has not been submitted anywhere else for this or any other degree.

Date 13/5/25
Place Bilaspur.

S. Gajbhiye
13/5/25
MISS SHUBHRA SHREE GAJBHIYE
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No. /F.Sc./2025

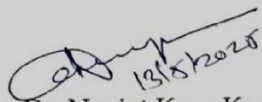
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Date

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Bilaspur (C.G.)

FORWARDING CERTIFICATE

This is to certify that Mini project entitled "A Review on The Species Identification in Adulterated Meat" has been submitted by AKANKSHA SINGH, B.Sc. Forensic Science VI Semester, Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.) under the guidance of MISS SHUBHRA SHREE GAJBHIYE towards partial fulfilment of requirement for the award of Bachelor's Degree in Forensic Science.


13/5/2025

Dr. Navjot Kaur Kanwal
Associate Professor
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Department of Forensic Science
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A Review Paper on
Uncovering the Smoker's Trail: A Review of Nicotine Biomarkers in Forensic Science

B. Sc. Mini project Submitted to
Guru Ghasidas Vishwavidyalaya
Bilaspur (C.G.)

In Partial fulfillment of requirement for the degree of
Bachelor of Science Honors
in
Forensic Science
By

VRITANTH KASHYAP

B. Sc. VI Semester

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Miss Blessi Uikey
Assistant Professor



Department of Forensic Science
(Session 2022-25)

Guru Ghasidas Vishwavidyalaya Bilaspur (C.G.)



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CERTIFICATE

This is to certify that Mr. Vritanth Kashyap (Enrollment No.- GGV/22/10335, Roll No. 22045135) has carried out her Under Graduate Review work entitled "Uncovering the Smoker's Trail: A Review of Nicotine Biomarkers in Forensic Science" under the supervision of Miss Blessi Uikey from 2022-25 toward partial fulfillment of degree of Bachelor of Science in Biotechnology.

The work presented in the Review report is original and has not been submitted anywhere else for this or any other degree.

Date –
Place – Bilaspur

Blessi Uikey
13/05/2025
Under The Guidance Of
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This is to certify that Mini project entitled "Uncovering the Smoker's Trail: A Review of Nicotine Biomarkers in Forensic Science" has been submitted by VRITANTH KASHYAP, B.Sc. VI Semester, Guru Ghasidas Vishwavidyalaya Bilaspur (C.G.) under the guidance of Miss Blessi Uikey towards partial fulfillment of the requirement for the award of Bachelor's Degree in Forensic Science.

Dr. Navjot Kaur Kanwal

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