



SHRI DHARMASTHALA MANJUNATHESHWARA LAW COLLEGE  
CENTRE FOR POST GRADUATE STUDIES & RESEARCH IN LAW  
MANGALURU - 575003

AFFILIATED TO KARNATAKA STATE LAW UNIVERSITY, HUBBALLI  
RECOGNIZED BY BAR COUNCIL OF INDIA, NEW DELHI  
(NAAC Accredited B<sup>++</sup> CGPA 2.9)

Sponsored By: Shri Dharmasthala Manjunatheshwara Educational Society®, Ujire, D.K.

## DVV CLARIFICATION

### Criteria VI: Governance, Leadership and Management

Metric No: 6.3.2.1: Percentage of teachers provided with financial support to attend conferences/workshops and towards membership fee of professional bodies publication and other academic incentives during the last five years.

**Query B:** HEI is required to furnish 1. Certificates, 2. Electronic details documenting transfers made in favour of faculty members, pertaining to the following teaching staff.

1. (2022) Dr. Ravindra K Rajput.
2. (2022) Dr. Shubhalakshmi.
3. (2022) Mrs Vinutha. K
4. (2023) Dr. Ashwini P.
5. (2023) Dr. Ravindra K Rajput.
6. (2023) Dr. Shaheema A.S.
7. (2023) Ms. Suma Suresh Kogilgeri.

**Response:** The college has furnished the certificates of the teaching staff. With regard to electronic details documenting transfers made in favour of faculty members, the College has furnished the college account pass book entry highlighting the concerned faculty name. With respect to Mrs. Vinutha, Assistant Professor, since amount of Rs. 2200 is paid in cash, a cash voucher is furnished.



SHRI DHARMASTHALA MANJUNATHESHWARA LAW COLLEGE  
CENTRE FOR POST GRADUATE STUDIES & RESEARCH IN LAW  
MANGALURU - 575003

AFFILIATED TO KARNATAKA STATE LAW UNIVERSITY, HUBBALLI  
RECOGNIZED BY BAR COUNCIL OF INDIA, NEW DELHI  
(NAAC Accredited B++ CGPA 2.9)

Sponsored By: Shri Dharmasthala Manjunatheshwara Educational Society®, Ujire, D.K.

**Criteria VI: Governance, Leadership and Management**

Metric No: 6.3.2.1: Percentage of teachers provided with financial support to attend conferences/workshops and towards membership fee of professional bodies publication and other academic incentives during the last five years.

Index		
Sl. No.	Contents	Page No.
1.	<b>Dr. Ravindra K Rajput (2022)</b>	
	Certificate	3
	Electronic details	4
2.	<b>Dr. Shubhalakshmi (2022)</b>	
	Certificate	5
	Electronic details	6
3.	<b>Mrs. Vinutha. K (2022)</b>	
	Certificate	7
	Electronic details	8
4.	<b>Dr. Ashwini P (2023)</b>	
	Certificate	10
	Electronic details	11
5.	<b>Dr. Ravindra K Rajput (2023)</b>	
	Certificate	12
	Electronic details	13
6.	<b>Dr. Shaheema A S (2023)</b>	
	Certificate	14
	Electronic details	21
7.	<b>Ms. Suma Suresh Kogilgeri (2023)</b>	
	Certificates	22 & 24
	Electronic details	23 & 25



0002738

ಬೆಂಗಳೂರು ವಿಶ್ವವಿದ್ಯಾಲಯ

A57-P1-294



# Bangalore University

NAAC 'A' Grade

We the Chancellor, the Pro-Chancellor, the Vice-Chancellor, the members of the Syndicate & Academic Council

**Certify that**

**Rajput Ravindra Krishna**

ಯಥಾಯೋಗ್ಯವಾಗಿ ಈಗಾಗಲೇ ಪ್ರವೇಶ ಪಡೆದಿರುವುದು ದೃಢೀಕರಿಸಲ್ಪಟ್ಟು  
has been duly admitted to the Degree of

**ಡಾಕ್ಟರ್ ಆಫ್ ಫಿಲಾಸಫಿ**

**Doctor of Philosophy**

**Faculty of Law - Law**

ಪದವಿಗೆ ಅಗತ್ಯವಾದ ಅರ್ಹತೆಗಳನ್ನು ಪೂರೈಸಿರುವುದು ಪರಿಗಣಿಸಿದಾಗ  
in recognition of the fulfillment of requirements  
ಮೇಲೆ ಕಾಣಿಸಿದ ಪದವಿಗೆ ಅವರನ್ನು ಅಂಗೀಕರಿಸಲಾಗಿದೆ. ಈ ಪದವಿಯ ವಿವರಗಳು ಕೆಳಗೆ  
for the said degree as indicated below

ಪದವಿಯನ್ನು ನೀಡಿದ ವರ್ಷ  
Year of Award : **2022**

ಸಂಶೋಧನಾ ಕ್ಷುಬ್ಧದ ಶೀರ್ಷಿಕೆ : **Legal Regime on Cyber Crime in India - A Critical Study with Special Reference to Cyber Crime Control in Karnataka**

ವಿಶ್ವವಿದ್ಯಾಲಯದ ಅಧಿಕಾರ ಮುದ್ರೆಯಡಿ ನೀಡಲಾಗಿದೆ  
Given under the seal of the University

ಕಾರ್ಯಾಲಯ  
ಬೆಂಗಳೂರು  
ದಿನಾಂಕ  
ಥೀಸ್

05/12/2022



*(Signature)*  
Vice-Chancellor

3

Karnataka Bank Ltd.

4762500102252601 Pg. 35

Date	Particulars	Ch.No.	Withdrawals	Deposits	Balance
29-11-22	GOPIKA	665064	57730.00		1849372.48Cr
29-11-22	THE PRINCIPAL SDM LAW COLLEGE	665069	242590.00		1606782.48Cr
30-11-22	TO SELF	665071	3000.00		1603782.48Cr
30-11-22	MICR CHARGES		236.00		1603546.48Cr
30-11-22	THE PRINCIPAL SDM LAW COLLEGE	665070	7280.00		1596266.48Cr
01-12-22	SB Int 4762500102252601 From 0			7724.00	1603990.48Cr
01-12-22	TO SELF	665075	5000.00		1598990.48Cr
01-12-22	THE PRINCIPAL SDM LAW COLLEGE	665074	194680.00		1404310.48Cr
01-12-22	NISHMA	665065	65330.00		1338980.48Cr
01-12-22	NIDHI	665062	12730.00		1326250.48Cr
02-12-22	SHUBHALAKSHMI	665072	3000.00		1323250.48Cr
02-12-22	RAVINDRA KRISHNA RAJPUT	665073	3000.00		1320250.48Cr
02-12-22	Chrgs for NEFT UTR No.:KARBN22		17.39		1320233.09Cr
02-12-22	RAVINDRA KRISHNA RAJPUT	665073	3000.00		



4



# KARNATAKA STATE LAW UNIVERSITY

NAVANAGAR, HUBBALLI-580 025

Accredited with 'A' Grade by NAAC

No. KSLU/ Exam Section/Ph.D. Notification/2023/ 579/a

Date: 30.06.2023

## ಪ್ರಕಟಣೆ

ಓವಿ.ಡಿ. ಪದವಿ ಪರಿಣಾಮ ಪ್ರಕಟಣೆ

ಈ ಕೆಳಗೆ ತಿಳಿಸಿದ ಸಂಶೋಧನಾ ಅಭ್ಯರ್ಥಿ ವಿಶ್ವವಿದ್ಯಾಲಯಕ್ಕೆ ಸಾದರಪಡಿಸಿದ ಪುನಃಪ್ರಬಂಧವನ್ನು ಪರಿಶೀಲಿಸಿ ನೋಲ್ಮಾಪನ ಮಾಡಿ ಸಲ್ಲಿಸಿದ ವರದಿಗಳನ್ನು ಪರಿಗಣಿಸಿ ಸಂಬಂಧಿಸಿದ ಅಭ್ಯರ್ಥಿಗೆ ಈ ಕೆಳಗೆ ಕಾಣಿಸಿದ ವಿಷಯದಲ್ಲಿ ಡಾಕ್ಟರ್ ಆಫ್ ಫಿಲಾಸಫಿ ಪದವಿಯನ್ನು ಪ್ರದಾನ ಮಾಡಲು ಮಾನ್ಯ ಕುಲಪತಿಗಳು, ಸುಂಡಿಕೇಲ್ ಸಭೆಯ ಪರವಾಗಿ ಒಪ್ಪಿಗೆ ನೀಡಿದ್ದಾರೆ. ಅಂತಹ ಸದರಿ ಅಭ್ಯರ್ಥಿಯು ಡಾಕ್ಟರ್ ಆಫ್ ಫಿಲಾಸಫಿ ಪದವಿ ಪಡೆಯಲು ಅರ್ಹರಿರುವರೆಂದು ಈ ಮೂಲಕ ಘೋಷಿಸಲಾಗಿದೆ.

1) ಅಭ್ಯರ್ಥಿಯ ಹೆಸರು	- ಶ್ರೀಮತಿ ಶುಭಲಕ್ಷ್ಮಿ ಪಿ.
2) ನೋಂದಣಿ ಸಂಖ್ಯೆ ಮತ್ತು ದಿನಾಂಕ	- 10118508001/15.05.2018
3) ಪದವಿ	- ಎಲ್.ಎಲ್.ಎಮ್.
4) ಸಂಶೋಧನೆಯ ವಿಷಯ	- ಕಾನೂನು ಅಧ್ಯಯನ
5) ಪುನಃಪ್ರಬಂಧದ ಶೀರ್ಷಿಕೆ	- "ವಿಶ್ವ ವ್ಯಾಪಾರ ಸಂಘಟನೆಯಡಿಯಲ್ಲಿ ವಿವಾದ ಇತ್ಯರ್ಥ ಕಾರ್ಯ ವಿಧಾನದ ಪರಿಣಾಮಕಾರಿತ್ವ: ಅಭಿವೃದ್ಧಿಶೀಲ ರಾಷ್ಟ್ರಗಳ ಕಾಳಜಿಯ ವಿಶೇಷ ಉಲ್ಲೇಖದೊಂದಿಗೆ ಒಂದು ಅಧ್ಯಯನ"
6) ಮಾರ್ಗದರ್ಶಕರ ಹೆಸರು	- ಡಾ. ರಾಜೇಂದ್ರಕುಮಾರ ಹಿಟ್ಟಣಗಿ ಸಹಾಯಕ ಪ್ರಾಧ್ಯಾಪಕರು, ಕ.ಸ.ಲ.ವಿ.ಕಾನೂನು ಶಾಲೆ, ಹುಬ್ಬಳ್ಳಿ

## NOTIFICATION

### DECLARATION OF RESULT OF DOCTOR OF PHILOSOPHY

The Vice-Chancellor of this University on behalf of the Syndicate has accepted the reports of the examiners for the award of the Degree of Doctor of Philosophy to the Candidate in the subject as shown below. She is accordingly declared qualified to receive the Degree of Doctor Philosophy.

1) Name of the Candidate	- Mrs. Shubhalakshmi P.
2) Registration No. & Date	- 10118508001/15.05.2018
3) P.G. Course	- LL.M.
4) Subject for Research	- Law
5) Title of Thesis	- "EFFICACY OF THE DISPUTE SETTLEMENT MECHANISM UNDER THE WORLD TRADE ORGANISATION REGIME: A STUDY WITH SPECIAL REFERENCE TO THE CONCERNS OF DEVELOPING COUNTRIES"
6) Name of the Guide	- Dr. Rajendrakumar Hittanagi Assistant Professor, K.S.L.U's Law School, Hubballi

REGISTRAR (EVALUATION)



5



✪ Karnataka Bank Ltd.

4762500102252601 Pg. 35

Date	Particulars	Ch.No.	Withdrawals	Deposits	Balance
29-11-22	COPIKA	665064	57730.00		1849372.48Cr
29-11-22	THE PRINCIPAL SDM LAW COLLEGE	665069	242590.00		1606782.48Cr
30-11-22	TO SELF	665071	3000.00		1603782.48Cr
30-11-22	MICR CHARGES		236.00		1603546.48Cr
30-11-22	THE PRINCIPAL SDM LAW COLLEGE	665070	7280.00		1596266.48Cr
01-12-22	CB Int 4762500102252601 From 0			7724.00	1603990.48Cr
01-12-22	TO SELF	665075	5000.00		1598990.48Cr
01-12-22	THE PRINCIPAL SDM LAW COLLEGE	665074	194680.00		1404310.48Cr
01-12-22	NISHNA	665065	65300.00		1338980.48Cr
01-12-22	NIDHI	665062	12730.00		1326250.48Cr
01-12-22	SHUBHALAKSHMI	665072	3000.00		1323250.48Cr
01-12-22	KAVYINDRA KRISHNA RAJPUT	665073	3000.00		1320250.48Cr
02-12-22	Chrgs for NEFT UTR No. KARBN22		17.39		1320233.09Cr
02-12-22	SHUBHALAKSHMI	665072	3000.00		



6



# CERTIFICATE

22nd Nov. to 5th Dec. 2022

**14 Days Refresher Course on  
"Evaluation and Monitoring: It's Relevancy to  
Research Methodology"**



**Organised by**  
**TOUCAN Research and Development**  
(Regd. under Ministry of Corporate Affairs, Govt. of India)  
(ISO 9001:2015 Certified Organisation)



**In Association with**  
**International Vocational Training and Technology Research Institute**

An Autonomous Body, Regd. Under Ministry of MoMSME, Govt. of India  
A unit of TRD Pvt. Ltd. (Regd. under Ministry of Corporate Affairs, Govt. of India )  
An Academic Collaboration with ICSRD, Bengaluru, Karnataka

*This is to certify that*

*K. Vinutha*

Assistant Professor  
SDM Law College  
Kodialbail, Mangalore 575003

Registration No.: IVTTRI/TRD-022-16

has participated in the 14 Days Refresher Course

*AS/L*

Project Coordinator



*K. K. Mishra*

Dr. K. K. Mishra

Director

7



### SDM LAW COLLEGE MANGALORE

SDM LAW COLLEGE,  
M.G. ROAD  
KODIALBAIL  
MANGALORE

#### CASH PURCHASE

Trans. No.: 275      Trans. Date: 17/09/2022      Ref. No.: 273      Ref. Date: 17/09/2022      CR No.: 73950

**VINUTHA .K**

Narration: TOWARDS DELEGATION FEES PAID TO MS. VINUTHA .K FACULTY OF OUR COLLEGE TO ATTEND THE CONFERENCE ORGANIZED BY TOUCAN RESEARCH AND DEVELOPMENT

Sl No.	Financial Account	Dir	Amount	CPC Allocation
1	CASH PURCHASE RETAIL -LUA C		2200.00	
2	STAFF WELFARE EXPENSES	D	2200.00	

Remarks: TOWARDS DELEGATION FEES PAID TO MS. VINUTHA .K FACULTY OF OUR COLLEGE TO ATTEND THE CONFERENCE ORGANIZED BY TOUCAN RESEARCH AND DEVELOPMENT

*[Signature]*  
Cashier

*[Signature]*  
Verified By

*[Signature]*  
Authorised By      Party Signature





# TOUCAN Research And Development

453 NEAR SHIVA MANDIR, AZAD NAGAR, BHULI, DHANBAD, JHARKHAND-326001  
408 Email: [research@toucanresearchanddevelopment.online](mailto:research@toucanresearchanddevelopment.online)  
[www.toucanresearchanddevelopment.online](http://www.toucanresearchanddevelopment.online)

10:46 am

SEMINAR | CONFERENCE | WORKSHOP | SYMPOSIUM | ORIENTATION PROGRAMME

Registration No. TC/DH/TRD-022 - SP-003

Dr./ Mr./ Ms./  K. VINUTHA

Date: 29/08/22

e/ University/ Organization SDM. Law College  
Mangalore

No. 7899950961 E-mail \_\_\_\_\_

Registration Fee in words Two Thousand Two Hundred

₹ 2200

Mode: Cheque  Cash  Online  Draft







# KARNATAKA STATE LAW UNIVERSITY

Navanagar, Hubballi

(Accredited with 'A' Grade by NAAC)

in Association with

Ramaiah College of Law, Bengaluru, Saraswathi Law College, Chitradurga, SJR College of Law, Bengaluru  
Soundarya College of Law, Bengaluru, Bengaluru Law College, Bengaluru, Vidyodaya Law College, Tumkur

## Certificate

This is to certify that Prof/Dr/Mr/Ms. Ashwin P

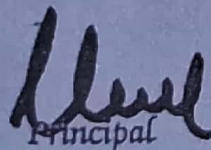
representing SDM Law College, Mangaluru

has participated/presented a paper

"Issues of Privacy and Right to Information"

in the

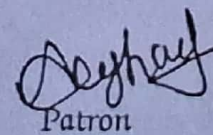
Two Day National Conference on Relevance of Unenumerated Rights within the Constitutional Framework, organised by the Karnataka State Law University, Hubballi in Association with Ramaiah College of Law, Bengaluru, Saraswathi Law College, Chitradurga, SJR College of Law, Bengaluru, Soundarya College of Law, Bengaluru, Bengaluru Law College, Bengaluru & Vidyodaya Law College, Tumkur on 10th and 11th August 2023 held at Ramaiah College of Law, Bengaluru.

  
Principal

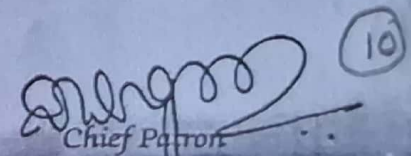
Ramaiah College of Law, Bengaluru

Representative of Collaborative Institutions



  
Patron

Registrar

  
Chief Patron  
Hon'ble Vice Chancellor  
Karnataka State Law University



Karnataka Bank Ltd

4762500102252601

Pg.

18

Date	Particulars	Ch.No.	Withdrawals	Deposits	Balance
24-08-23	ASHWINI P	676445	1500.00		1486474.85Cr
24-08-23	ASHWINI P	676444	6000.00		1480474.85Cr
24-08-23	NITHYA	676441	2000.00		1478474.85Cr
24-08-23	SAMEEKSHA BHASKAR HEGDE	676428	6245.00		1472229.85Cr
24-08-23	RASHMITHA	676438	1000.00		1471229.85Cr
24-08-23	RATHNARAJ S SHETTY	676118	2900.00		1468329.85Cr
24-08-23	GLOBAL TOURS AND TRAVELS	676121	28140.00		1440189.85Cr
24-08-23	ARJUN G RAD KBL-IDDYA-SURATHKA	676401	28066.00		1412123.85Cr

Handwritten signature/initials in the right margin of the table.



11





# RAJA LAKHAMGOUDA LAW COLLEGE, BELAGAVI


(Affiliated to Karnataka State Law University, Hubballi)

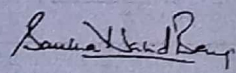


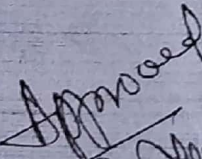
## National Conference on Alternative Dispute Resolution System - New Trends, Contemporary Challenges and Future

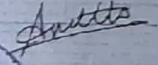
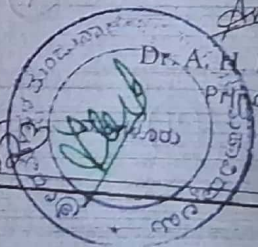
### CERTIFICATE

This is to certify that Dr./Mr./Ms. Ravindra K. Rajput  
of S. D. M. Law College, Mangaluru presented a research  
paper titled "The Future of ADR v/s A.I. in India." in the National  
Level Conference on "Alternative Dispute Resolution System - New Trends, Contemporary Challenges  
& Future" organized on 28th January, 2023 by Karnatak Law Society's Raja Lakhamgouda Law College, Belagavi.

  
Satish Anikhindi  
Chairman, Seminar Dept.

  
Dr. Samina Nahid Baig  
IQAC Coordinator

  
Approved  
23/03/2023

  
Dr. A. H. Hawaldar  
Principal  


Ch. no. 671089  
21/3



24-03-23	SANDEEPA BHAT	670649	21329.00		313588.87Cr
27-03-23	TD ASIAN SPORTS CENTR KBL-M LO RI - BOLAR	670664	4116.00		309472.87Cr
27-03-23	APEKSHA KOTTARI KBL-M LORE - M ANMAGUDDA	670662	2800.00		306672.87Cr
27-03-23	MICR CHARGES		236.00		306436.87Cr
27-03-23	J K PRINTERS	670627	3000.00		303436.87Cr
27-03-23	ARJUN G RAO KBL-IDOYA-SURATHKA C I	671081	28710.00		274726.87Cr
27-03-23	RAVINDRA KRISHNA RAJPUT	671089	1500.00		273226.87Cr
27-03-23	RAVINDRA KRISHNA RAJPUT	671090	1000.00		272226.87Cr
27-03-23	MAHESHCHANDRA MAYAK KBL-M LORE - URVA MARKET	671091	1000.00		271226.87Cr

Handwritten marks: 'X' and '5' in the right margin of the table.

<---End of Transaction for this page--->

C/F 28/03/23

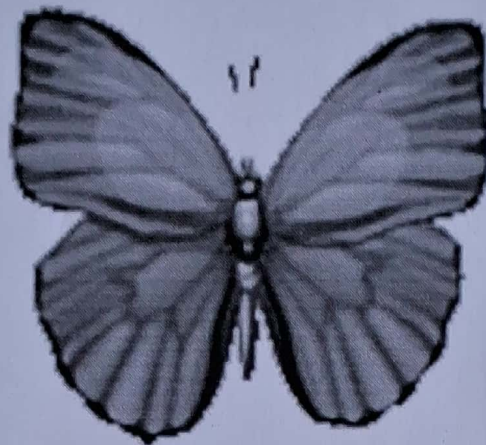


13



# Tamilnadu Scientific Research Organization (TNSRO) i

## Research Journal



*Connecting People with Nature*

INDIAN JOURNAL OF NATURAL SCIENCES

ISSN: 0976-0997 ( Print, Bimonthly ) Multidisciplinary  
Sciences

Regd.Off : C/o TNSRO, NO 46-141, Meenakshipuram Rd,  
Arimalam 622 201, Pudukkottal,  
Tamil Nadu, India



**National Academy of Agricultural Sciences**

NAAS Score of Science Journals

JRNID:1085, NAAS Score : 4.34 / 2024

14



**INTERNATIONAL**

ISI IMPACT FACTOR : 2.742 (2023-2024)







## Sustainable Agricultural Production through Genetic Engineering Technology In India: A Need

Shaheema A. S\*

Assistant Professor, SDM Law College, Centre for Post Graduate Studies and Research in Law, Mangaluru, D.K District, Karnataka, India

Received: 04 Aug 2023

Revised: 21 Aug 2023

Accepted: 07 Sep 2023

### \*Address for Correspondence

Shaheema A. S

Assistant Professor,  
SDM Law College,  
Centre for Post Graduate Studies and Research in Law,  
Mangaluru, D.K District,  
Karnataka, India.



This is an Open Access Journal / article distributed under the terms of the Creative Commons Attribution License (CC BY-NC-ND 3.0) which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited. All rights reserved.

### ABSTRACT

For the growing population in India the demand for food is increasing and there are several questions arising on the agricultural productivity but there is a need to provide a fruitful response to the questions in a sustainable way. Every Indian farmer needs to overcome the impact of various agriculture-related issues while growing crops. The modern genetic engineering technology provides a solution for increasing agricultural production sustainably. At the global level, several varieties of genetically modified crops with the application of genetic engineering technology are identified, developed, and commercialised, but the same are banned in India and the moratorium is imposed especially on genetically modified food crops. The author in this article focuses on the importance and benefits of genetically modified crops produced through genetic engineering technology to the Indian farmers and to resolve food insecurity problem.

**Keywords:** Agriculture, Genetic Engineering, Technology, Farmers, Resistant

### INTRODUCTION

For sustainable agricultural production, the application of genetic engineering technology in the cultivation of crops as a modern technology benefits the present and future generations. The World Commission on Environment and Development (WCED) defined the term 'Sustainable Development' as, "the ability of humanity to ensure that development meets the needs of the present without compromising the ability of future generations to meet their own needs". Sustainable development seeks to ensure that economic, social, and cultural rights will be realized in the future.



62567

15





## Sustainable Agricultural Production through Genetic Engineering Technology in India: A Need

Shaheema A. S\*

Assistant Professor, SDM Law College, Centre for Post Graduate Studies and Research in Law, Mangaluru, D.K District, Karnataka, India.

Received: 04 Aug 2023

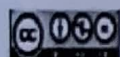
Revised: 21 Aug 2023

Accepted: 07 Sep 2023

### \*Address for Correspondence

Shaheema A. S

Assistant Professor,  
SDM Law College,  
Centre for Post Graduate Studies and Research in Law,  
Mangaluru, D.K District,  
Karnataka, India.



This is an Open Access Journal / article distributed under the terms of the **Creative Commons Attribution License (CC BY-NC-ND 3.0)** which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited. All rights reserved.

### ABSTRACT

For the growing population in India the demand for food is increasing and there are several questions arising on the agricultural productivity but there is a need to provide a fruitful response to the questions in a sustainable way. Every Indian farmer needs to overcome the impact of various agriculture-related issues while growing crops. The modern genetic engineering technology provides a solution for increasing agricultural production sustainably. At the global level, several varieties of genetically modified crops with the application of genetic engineering technology are identified, developed, and commercialised, but the same are banned in India and the moratorium is imposed especially on genetically modified food crops. The author in this article focuses on the importance and benefits of genetically modified crops produced through genetic engineering technology to the Indian farmers and to resolve food insecurity problem.

**Keywords:** Agriculture, Genetic Engineering, Technology, Farmers, Resistant

### INTRODUCTION

For sustainable agricultural production, the application of genetic engineering technology in the cultivation of crops as a modern technology benefits the present and future generations. The World Commission on Environment and Development (WCED) defined the term 'Sustainable Development' as, "the ability of humanity to ensure that development meets the needs of the present without compromising the ability of future generations to meet their own needs". Sustainable development seeks to ensure that economic, social, and cultural rights will be realized in the future,



62567

16



**Shaheema**

which means that the conditions for their realisation also need to be fulfilled. Like sustainable development principle genetic engineering technology as an innovative technology guarantee sustainable agricultural production benefitting both farmers and consumers.

**Problems Relating to Sustainable Agricultural Productivity in India**

For Indian people, agriculture is the sole and most important means of livelihood, accounting for 58 per cent of direct or indirect employment. In developing countries, the fact is that rural incomes can grow to profitable levels only when the percentage of the population dependent upon agriculture is no more than 5 per cent. Such a change requires the consolidation of individual farm holdings to 15-20 hectares and the transformation and mechanization of farm operations. There is hardly any scope and hope for such a development in the current political climate in India. The per capita availability of agricultural land is expected to go down from the present 0.29 hectares to 0.23 hectares by 2025 and 0.19 hectares by 2050, due to the increase in population. This situation seriously affects agricultural production and food security in India and could be partly compensated by (1) reclaiming 12 million hectares of degraded land, (2) bringing under cultivation most of the 13 million hectares of cultivatable wasteland, and 29 million hectares left as uncultivated, both by enhancing the strength of soil and irrigation and by setting out modern technologies. Efforts should also be made to use 17 million hectares of presently uncultivable barren land, through technological innovation.

At the international level, the developed countries have made sufficient improvements towards sustainable agricultural yield because of low population growth, substantial areas of land, sustainable agricultural practices like less or no-ploughing are widely practised, and appropriate crop rotation is in place. But in India the situation relating to sustainable agricultural production is completely different. Several challenges for sustainable agriculture production are faced by Indian farmers because of the extensive use of chemicals and erroneous use of water resources. The maximum waste of water occurs in the areas in which crops are grown under irrigated situations. In Northern part of India, wheat and rice are produced continuously in the greatest agriculturally productive regions. Whereas, in the Southern part the water is much scarcer and in the traditional rice-growing areas of Eastern part constant rice cultivation is practised whenever irrigation benefit is available. Above all the stated problems the groundwater levels in several parts of India are diminishing and the subsoil water quality is deteriorating in several places.

The cultivation of wheat and rice are the source of the large monetary expectation of Indian farmers. There are less governmental policies on grain acquirement and less monetary support for power, irrigation, and fertilizers. Due to the deficiency of proper crop rotation in wheat/rice growing fields, the manifestation of pathogens and pests have increased. Also, farmers are excessively using agrochemicals like pesticides and fungicides. Extensive use of agrochemicals for longer time poses a substantial risk to the wellbeing of farmers, consumers, flora, and fauna. Sustainable agriculture productivity involves suitable crop rotation technique. Improving the production of crops such as pulses, coarse grains, and oils seeds are vital for nutritional security and the same will lead to addressing the problem of extreme use of water and high input costs.

**Problems Relating to Irrigation in India**

Agriculture in India is still affected by the vagaries of nature, i.e., monsoon failures leading to crop losses and to leaving more land in the drier areas uncultivated. The net irrigated area increased from 31.1 per cent in 1970-71 to 64.8 million hectares in 2017-18, which is insufficient, even for the current needs. The main reason for the depletion of groundwater is the excessive utilization of bore wells and more particularly in central and northern India. It is estimated that 17 per cent of the Indian population and 22 per cent of the geographic area will be facing water scarcity by 2050. Supplementing the irrigation perspective is the key to sustainable agriculture production. Cultivation of pulses, oilseeds, and millets produced in the drier regions of the country, would significantly increase with extended irrigation facilities.





**Shaheema****Problems Relating to Food Grains Productivity in India**

Production of food grain in India rose from 52 million tonnes in 1951-2 to 284.83 million tonnes in 2017-18. Though the volume of food production has shown upward trends, the yields have been low to cope-up the food need of the present Indian population. There is a need for India to realize its full potential for agricultural production, which can be made good only by technological innovation. Improving agricultural practices, research, irrigation, and infrastructure development to scale up productivity is a serious challenge for India.

**Genetic Engineering Technique and Sustainable Agriculture Productivity**

Genetic engineering techniques have the potential to help to ease problems relating to agriculture through genetically modified crops that can preserve habitations by enhancing agricultural productivity on existing farmlands, land renovation approaches, and so on. Genetic engineering technology reduces input costs in agrochemicals and protects the environment from the accumulation of chemicals which are used for controlling pathogens and pests.

**Specific Traits in the Genetically Modified Crops**

The genetically modified crops available on the international market today have been designed using one of four basic traits, such as: resistance to insects/pests, resistance to disease/viral infections, tolerance towards certain herbicides, etc.

**Insect/Pests Resistance Crops**

In the major parts of the world and mainly in the developing countries the insects or pests are main causes of destruction of crops. More use of pesticides and fertilizers leads to water and soil contamination and the same will result in loss of soil fertility and damage the environment. It will even impact consumers that they scare to eat food produced from the use of pesticides because of the potential health risk. Genetically modified crops are the substitute for chemical pesticides, which are pests resistant, such as Bt corn, Bt cotton, Bt soybean, Bt Brinjal, Bt Mustard, and so on. They help to protect the plants from getting damaged by insects and pests. By growing genetically modified crops various adverse effects using a chemical pesticide can be controlled such as reduced damage to soil, the high cost of bringing a crop to market, etc.

**Resistance to Disease/Virus Infection**

Disease/virus infection of crops is one of the significant causes that result in a massive loss to farmers and impact the availability of food and threatens food security. Diseases in crops are because by viruses, fungi, and bacteria. Resistance to pathogenic viruses is accomplished by incorporating genes for viral coat proteins and several other options, which effectively inhibit the multiplication of the virus. Genetically modified crops with resistance power to diseases, for instance, a viral protein Tobacco Mosaic Virus (TMV) has been introduced to develop GM tobacco, and this GM tobacco is resistant to TMV.

**Herbicide Tolerant Crops**

To remove and destroy weeds, farmers use large quantities of herbicides (weed killers). With care and due diligence, weeds must be removed by using herbicides, and it is a time-consuming and expensive process. For weed control, the crop is made herbicide resistant/tolerant by engineering relevant genes 'into' it and spraying the field with herbicide. The weeds are killed while the crop is left unharmed because of its genetic resistance. Herbicide tolerance helps the use of herbicides over genetically modified crops, e.g., soybean, cotton, maize, sugar beet, and canola, allowing the crop to remain unharmed while weeds are controlled. The farmers involved in producing genetically modified crops require only one application of weed killer instead of numerous applications, and the same will benefit them in reducing the production cost and restrict the danger of agricultural waste run-off. The glyphosate-tolerant crop is the leading commercial herbicide-tolerant trait. Other herbicide-resistant crops have been developed called herbicides resistant tobacco, tomato, potato, and cotton. Several herbicide-tolerant crops are undergoing regulatory review. The labour-saving technology in the herbicide-tolerant crops benefits farmers with more income than usual. Developed countries apply this technology for abridging weed control procedures and thus reducing a

62569



18



**Shaheema**

labour-intensive weeding practice. As Bt cotton is the only commercialised genetically modified crop in India, there is a significant gain regarding improved production and decreased use of pesticides.

**Cold Resistant Crops**

Genetically modified tobacco and potato are also cold-resistant crops: unexpected coldness can obliterate subtle seedlings. Genetically modified tobacco and potatoes are inserted with antifreeze gene from cold water fish so that these crops could tolerate cold temperature that usually kills unmodified seedlings.

**Drought Tolerant/Salinity Tolerant Crops**

Farmers usually find the difficulty in growing the crops in the previously unsuitable lands for cultivation. Thus, to overcome this situation the drought/salinity tolerant genetically modified crops withstand for longer period and this feature in the crops help farmers to grow crops in the previously unsuitable land for agriculture.

**Genetically Modified Crops and Environmental Management**

Genetically modified crops help in environmental management as soil and groundwater pollution are continuous issues in most parts of the world. To manage environment few plants for example poplar trees have been genetically modified to crackdown substantial metal pollution from contaminated soil.

**Delayed Ripening Crops**

Fruit crops are genetically modified with delayed ripening benefits in them. For instance, genetically modified tomatoes with delayed fruit ripening preserve the fruit for more days, these tomatoes are high in sugar and without any fear of spoilage can be transported to far-away markets. These genetically modified tomatoes are helpful in food security. Through delayed ripening genetically modified crops also helps in post-harvest losses to farmers and the same will enhance productivity improving farmers' income and providing food security. For the improved income level of people and more awareness on health and nutrition in the coming years there is a need for substantial increase of vegetable and fruit crops. For combating the issues of post-harvest losses and food insecurity, the contribution of genetically modified crops will be much appreciated.

**CONCLUSION**

As discussed above, genetic engineering techniques in agricultural production offer many advantages with so many potential benefits to Indian farmers and increase agricultural yield and combat the threat to food security. But, a moratorium on the commercialisation of genetically modified food crops in India is restricting them from making use of the potential benefits of genetic engineering technology. Thus, the proper use of genetic engineering technology will be a great help to comprehend sustainable agricultural productivity and food security in India.

**REFERENCES**

1. Annual Report by Department of Agriculture, Co-operation and Farmers Welfare Ministry of Agriculture and Farmers Welfare, Government of India (2017-18) Retrieved from: [www.agricoop.nic.in](http://www.agricoop.nic.in)
2. Chopra, V.L. (2002). Improving the Genetic Produce Bio-technology in Crop Productivity, *The Hindu Survey of Indian Agriculture*, 228.
3. Dahleen, S. Lynn et. al., (June 2001). Transgenic Approaches to Combat Fusarium Head Blight in Wheat and Barley, *Crop Science* 41(3), 628.
4. Deborah, B. Whitman (April 2000). Genetically Modified Foods Harmful or Helpful? *CSADiscovery*, 1-13. Retrieved from <http://www.csa.com/discoveryguides/discoveryguides-main.php>.
5. Zhang, H.Z (Aug 2001). Transgenic Salt Tolerant Plants Accumulate Salt in Foliage. But not in Fruit. *Nature Biotechnology* 765.



62570

19







Shaheema

6. HidenOhkawa *et. al.* (Sep, 1999). The use of Cytochrome Genes to Introduce Herbicide Tolerance in Crops. *Pesticide Science* (9), 567.
7. Kameswara Rao, C. (2013). Genetically Engineered Food Crops Would Ensure Food Security. In David J. Bennett and Richard Jennings C (eds.), *Successful Agricultural Innovation in Emerging Economies: New Genetic Technologies for Global Food Production*, (p.169) Cambridge University Press, Cambridge.
8. Ministry of Finance, Government of India Report on Agriculture (Economic Survey, India Budget), (2012–2013). Retrieved from: [www.indiabudget.nic.in/es2011-12/echap-08.pdf](http://www.indiabudget.nic.in/es2011-12/echap-08.pdf).
9. Moellenbock, D J. *et al.* (2001) Insecticidal Proteins from *Bacillus Thuringiensis* Protect Corn from Corn Root Worms *Nature Biotechnology*, 19(7), 668.
10. Nagendra Prabhu, G. (July-Dec 2003). Indian Initiatives in Biotechnology SAJOSPS96-97.
11. Parthasarathi, M. (2012). *Genetically Modified Crops*, New Delhi, Bio-Green Books.
12. Qaim, M (2009). The Economics of Genetically Modified Crops. *Annu Rev Res Econ* 1, 665–693.
13. Ramesh Chand (2005). *Indian's Agricultural Challenges: Reflection on Policy, Technology, and other Issues*. New Delhi: Centad.
14. Shantanu Jugtawat. *Genetic Engineering and International Law Development - An Introspection*. Retrieved from [www.nlu.com/new/art6.pdf](http://www.nlu.com/new/art6.pdf).



20

62571



**Karnataka Bank Ltd.**

4762500102252601 Pg. 9

M

Date	Particulars	Ch. No.	Withdrawals	Deposits	Balance
27-03-23	YOPURSELVES	671099	30000.00		241226.87Cr
28-03-23	TD SELF	671106	2000.00		239226.87Cr
28-03-23	RAMEELA SHEKAR	670672	3000.00		236226.87Cr
28-03-23	GANGADHAR D SHETTIGARA	671095	68310.00		167916.87Cr
28-03-23	CAMPUS	671082	11400.00		156516.87Cr
28-03-23	ASHWINI	671101	3110.00		153406.87Cr
27-03-23	MBBChrg-CashwdChrgs-BJSid-SBCW D		59.00		153347.87Cr
29-03-23	DR SHAHEEMA A S	671098	3000.00		150347.87Cr
29-03-23	SHRATHI PRINTERS AND PUBLISHER	671077	4380.00		145967.87Cr



21



No. KSLU/ Exam Section/Ph.D. Notification/2022-23/2582.

Date: 22.03.2024

**ಪ್ರಕಟಣೆ**

**ವಿಎಚ್.ಡಿ ಪದವಿ ಪ್ರಮಾಣ ಪ್ರಕಟಣೆ**

ಈ ಕೆಳಗೆ ತಿಳಿಸಿದ ಸಂಶೋಧನಾ ಅಭ್ಯರ್ಥಿ ವಿಶ್ವವಿದ್ಯಾಲಯಕ್ಕೆ ಸಾದರಪಡಿಸಿದ ಮಹಾಪ್ರಬಂಧವನ್ನು ಪರಿಶೀಲಿಸಿ, ಹೃದಯಪೂರ್ವಕವಾಗಿ ಸಲ್ಲಿಸಿದ ವರದಿಗಳನ್ನು ಪರಿಗಣಿಸಿ ಸಂಬಂಧಿಸಿದ ಅಭ್ಯರ್ಥಿಗೆ ಈ ಕೆಳಗೆ ಕಾಣಿಸಿದ ವಿಷಯದಲ್ಲಿ ಡಾಕ್ಟರೇಟ್ ಡಿಗ್ರಿ ಘೋಷಿಸಿ ಪದವಿಯನ್ನು ಪ್ರದಾನ ಮಾಡಲು ಮಾನ್ಯ ಕುಲಪತಿಗಳು, ಸಿಂಡಿಕೇಟ್ ಸಭೆಯ ಪರವಾಗಿ ಒಪ್ಪಿಗೆ ನೀಡಿದ್ದಾರೆ. ಆ ಪ್ರಕಾರ ಸದರಿ ಅಭ್ಯರ್ಥಿಯು ಡಾಕ್ಟರೇಟ್ ಡಿಗ್ರಿ ಘೋಷಿಸಿ ಪದವಿ ಪಡೆಯಲು ಅರ್ಹರಿರುವರೆಂದು ಈ ಮೂಲಕ ಘೋಷಿಸಲಾಗಿದೆ.

- |   |   |   |
|---|---|---|
| 1) ಅಭ್ಯರ್ಥಿಯ ಹೆಸರು                      | - | ಕುಮಾರಿ. ಸುಮಾ ಸುಶೇಖ ಕೋಗಿಲಗೆರಿ  |
| 2) ನೋಂದಣಿ ಸಂಖ್ಯೆ ಮತ್ತು ದಿನಾಂಕ           | - | 10117601009/08.05.2017  |
| 3) ಪದವಿ                                 | - | ಎಲ್.ಎಲ್.ಎಮ್   |
| 4) ಸಂಶೋಧನೆಯ ವಿಷಯ ಮತ್ತು ಪ್ರಬಂಧದ ಶೀರ್ಷಿಕೆ | - | ಕಾನೂನು ಅಧ್ಯಯನ<br>"ಆ ಕ್ರಿಟಿಕಲ್ ಸ್ಟಡಿ ಆಫ್ ಲೀಗಲ್ ಇಶ್ಯೂಸ್ ರಿಲೇಟಿಂಗ್ ಟು ದಿ ಯುಸ್ ಆಫ್ ಸೈಂಟಿಫಿಕ್ ಮೆಥಡ್ಸ್ ಇನ್ ಕ್ರಿಮಿನಲ್ ಇನ್ವೆಸ್ಟಿಗೇಷನ್ ವಿತ್ ಸ್ಪೆಷಲ್ ರೆಫರೆನ್ಸ್ ಟು ನಾರ್ಕೊಆನ್ಲಿಸಿಸ್, ಬ್ರೇನ್ ಮ್ಯಾಪಿಂಗ್ ಆಂಡ್ ಪಾಲಿಗ್ರಾಫ್ ಟೆಸ್ಟ್" |
| 5) ಮಾರ್ಗದರ್ಶಕರ ಹೆಸರು                    | - | ಡಾ. ತಾರಾನಾಥ, ಪ್ರಾಂಶುಪಾಲರು, ಎನ್.ಡಿ.ಎಮ್ ಕಾನೂನು ಮಹಾವಿದ್ಯಾಲಯ, ಮಂಗಳೂರು.  |

**NOTIFICATION**

**DECLARATION OF RESULT OF DOCTOR OF PHILOSOPHY**

The Vice-Chancellor of this University on behalf of the Syndicate has accepted the reports of the examiners for the award of the Degree of Doctor of Philosophy to the Candidate in the subject as shown below. She is accordingly declared qualified to receive the Degree of Doctor of Philosophy.

- |                            |   |   |
|----------------------------|---|---|
| 1) Name of the Candidate   | - | Ms. Suma Suresh Kogilgeri   |
| 2) Registration No. & Date | - | 10117601009/08.05.2017  |
| 3) P. G. Course            | - | LL.M.   |
| 4) Subject for Research    | - | Law   |
| 5) Title of Thesis         | - | "A Critical Study of Legal Issues Relating to the use of Scientific Methods in Criminal Investigation with Special Reference to Narcoanalysis, Brain Mapping and Polygraph Tests" |
| 6) Name of the Guide       | - | Dr. Tharanatha, Principal, SDM Law College, Mangaluru.  |



REGISTRAR (EVALUATION)/IC

೩೩



07-07-23	DR MEENAKSHI	672588	18255.00	✓	569600.98Cr
10-07-23	TO SELF	675112	4000.00	✓	565600.98Cr
11-07-23	SURESH LAMANI	675115	576.00	✓	565024.98Cr
11-07-23	KUMAR	675113	1739.00	✓	563285.98Cr
11-07-23	DR THARANATH	675114	5514.00	✓	557771.98Cr
11-07-23	SWASTHIK ELECTRICAL & PLUMBERS	675101	5188.00	✓	552583.98Cr
11-07-23	SUMA SURESH KOGILGERI	675104	3000.00	✓	549583.98Cr
11-07-23	RATNATRAYA PUBLICATIONS	675102	17476.00	✓	532107.98Cr
11-07-23	EXOTICA EVENT SOLUTIONS	675109	154660.80	✓	377447.18Cr
12-07-23	BHANDARY SCHOOL BOOK PVT LTD	675105	3502.00	✓	373945.18Cr
12-07-23	TO PRATIBA ENTERPRISES KBL-M L ORE - BEJAI	672599	1416.00	✓	372529.18Cr
12-07-23	SHRATHI PRINTERS AND PUBLISHE RS P LTD	675111	14046.00	✓	358483.18Cr
12-07-23	RAMDEV ENTERPRISES	675107	17908.00	✓	340575.18Cr

-----PAGE OVER..INSERT NEXT PAGE-----



23



मध्य भारती  
मासिकी एवं सप्ताहिकीय की दिशापी शोध-पत्रिका



MADHYA BHARTI  
(UGC CARE Group-1, Multi disciplinary)

## CERTIFICATE OF PUBLICATION

This is to certify that the article entitled

**POLYGRAPH TEST: ANALYSIS OF INDIAN LEGAL POSITION**

Authored By

**Ms Suma Suresh Kogilgeri,**

Assistant Professor, Shri Dharmasthala Manjunatheshwara Law College, Centre for Post Graduate Studies and Research in Law, Mangaluru, (affiliated to KSLU, Hubballi)

Published in

**Madhya Bharti (मध्य भारती) : ISSN 0974-0066 with IF=6.28**

Vol. 82, No. 10, July - December : 2022

UGC Care Approved, Group I, Peer Reviewed, Bilingual, Biannual,  
Multi-disciplinary Referred Journal



ज्ञान-विज्ञान विमुक्तये  
UGC  
University Grants Commission



Chief Editor  
प्रो. अश्विनीकुमार शर्मा

24



05-04-23	MAHESH CHANDRA NAYAK	671107	846.00		184048.48Cr
05-04-23	DR. THARANATH	671120	5514.00		178534.48Cr
06-04-23	SGST Account Maintenance Chrgs		2430.80		176103.68Cr
06-04-23	TO NARESH MALLIGEMADU	671103	2686.00		173417.68Cr
06-04-23	TO BHANDARY SCHOOL BOOK PVT LT D	671119	1635.00		171782.68Cr
07-04-23	LIC OF INDIA	671115	11590.00		160192.68Cr
07-04-23	LIC OF INDIA	671116	55746.00		104446.68Cr
10-04-23	TO SELF	671122	4000.00		100446.68Cr
10-04-23	TO UDAYA PRINTERY & PUBLICATIO NS PVT LTD	671118	4543.00		95903.68Cr
11-04-23	B NANDAKISHORE	671121	4000.00		91903.68Cr
12-04-23	VISHWANATHA GOWDA	671123	1796.00		90107.68Cr
13-04-23	SUMA SURESH KOGILGERT	669266	1000.00		89107.68Cr
13-04-23	SUMA SURESH KOGILGERT	671088	2000.00		87107.68Cr
PAGE OVER.. INSERT NEXT PAGE					
13-04-23	SUMA SURESH KOGILGERT	671088	2000.00		

