

# Shyamlal Pandviya Govt. P.G. College Morar



## Criteria: 3

Research, Innovations and Extension

**Grant sanction order & departments  
detail of funds allocated**

# Grant Sanction Letter from RUSA for Infrastructure Development & Lab Upgradation

मध्य प्रदेश शासन  
उच्च शिक्षा विभाग  
मंत्रालय, भोपाल

क्रमांक 660/82/रूसा/सी.सी./2019/38  
प्रति,

भोपाल, दिनांक ५ /10/2019

परियोजना संचालक,  
राष्ट्रीय उच्चतर शिक्षा अभियान,  
उच्च शिक्षा विभाग, सतपुड़ा भवन, पंचम तल,  
भोपाल 460001।

विषय:- कम्पौनेट-09, महाविद्यालयों में अधोसंरचना विकास करने के संबंध में।


संदर्भ:- मानव संसाधन विकास मंत्रालय का पत्र क्रमांक F.No. 24-48/2014-U Policy (MPIGC-Gen) दिनांक 13.06.2018।

.....00.....

उपरोक्त विषयांतर्गत संदर्भित पत्र के अनुक्रम में मानव संसाधन विकास मंत्रालय, भारत सरकार द्वारा रूसा चरण-2, कम्पौनेट-9, महाविद्यालय में अधोसंरचना विकास एवं उन्नयन कार्य करने हेतु राष्ट्रीय उच्चतर शिक्षा अभियान योजना से प्राप्त अनुदान एवं मांग संख्या-44 योजना क्रमांक 7600 (राष्ट्रीय उच्चतर शिक्षा अभियान योजना) सेगमेंट कोड 0701 (सामान्य), 0702(अनुसूचित जनजाति उप योजना), 0703 (अनुसूचित जनजाति)के अंतर्गत नीचे दर्शायी गई तालिका में उनके द्वारा प्रस्तुत प्रस्ताव अनुसार प्रशासकीय विभाग के अनुमोदन के परिप्रेक्ष्य में कॉलम 6 के अनुरूप निर्माण एवं उपकरण आदि क्रय करने की प्रशासकीय स्वीकृति प्रदान की जाती है।

S. no	Name of College/Place	New work & Amount (Rs.)	Renovation & Up gradation Amount (Rs.)	Equipment Amount (Rs.)	Total Amount of Administrative Sanction (Rs.Lacs)
1	2	3	4	5	6
1.	Govt. Narmada College, Hoshangabad	Additional rooms at F.F. Commerce block including electrification work . Area= 415.00 sq.m. Amount=69.43 lacs	Administrative block, chemistry & Industrial block, Science block F.F. Internal electrification, etc. Area=874.00 sq.m. Amount=65.93 lacs	Computer, internet setup, UPS, Computer centre furniture & electrical fitting in computer centre, sports/Gym material, apparatus for Physics lab. Amount=64.64 lacs.	200.00
2.	Govt. Shyama Prasad Mukherji Vigyan College, Bhopal (Earlier Known as Govt Benazeer Science & Commerce P.G. College, Bhopal)	Multipurpose Hall with internal electrification Area=680.00 sq.m. Amount= 100.00 lacs	General renovation of toilets, common areas & confidential room Area= 1056.00sq.m. Amount= 60.00 lacs Physics lab, Zoology lab, Biotech lab, Botany lab.	Material for Botany lab, Zoology lab, Chemistry lab, Physics lab, Maths department, Sports department, Commerce department . Amount=40.00 lacs	200.00

निरन्तर....2...

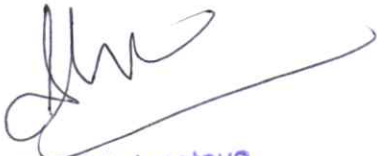
  
Dr. Sadhna Shrivastava  
IQAC Co-Ordinator  
S.L.P. Govt. P.G. College  
Morar, Gwalior



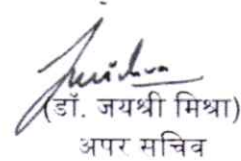
9.	Govt. Holkar Science College, Indore	New & Up gradation work of Library hall with toilets and internal / External Electrification. Amount = 115.00 lacs.	Lab Equipments. Amount = 85.00 lacs.	200.00
10.	Govt. Shyamlal Pandviya College, Morar, Gwalior	New block having 06 classrooms at G.F + F.F & toilets with complete Electrification work. Area = 550 sq.m Amount = 100.00 lacs.	Up Gradation of Parking shed and Renovation of toilets & Classrooms. Area = 250 sq.m Amount = 50.00 lacs.	200.00
11.	Govt. Motilal Vigyan College, Bhopal	Computer Centre Building with Toilets and internal/External Electrification. Area = 604 sq.m Amount = 100.00 lacs.	Up gradation of Auditorium. Area = 1878 sq.m Amount = 70.00 lacs.	200.00

स्वीकृति की शर्त निम्नानुसार है :-

1. मानव संसाधन विकास मंत्रालय, रूसा, भारत सरकार के दिशा निर्देश एवं मापदण्ड अनुसार राशि व्यय की जाना सुनिश्चित करें।
2. व्यय करते समय मध्यप्रदेश शासन द्वारा निर्धारित, जारी निर्देशों एवं नियमों का दृढ़ता से पालन, मध्यप्रदेश वित्तीय अधिकारों की पुस्तिका में उल्लेखित अधिकारों के तहत एवं भण्डार क्रय एवं सेवा उपार्जन नियम 2015 का पालन सुनिश्चित किया जावे।
3. क्षेत्रीय अपर संचालक की अध्यक्षता में रूसा से संबंधित क्रय हेतु समिति गठित कर तदनुसार, मध्यप्रदेश शासन के नियम सुनिश्चित किये जाये। इस समिति के सदस्य सचिव संबंधित महाविद्यालय के प्राचार्य रहेंगे।
4. व्यय राशि एवं क्रय सामग्री का विधिवत अभिलेख संधारण किया जावे। सामग्री आदि का गुणवत्ता परीक्षण सुनिश्चित किया जावे तथा उपयोग की गई राशि का पूर्ण विवरण सहित उपयोगिता प्रमाण पत्र परियोजना संचालक, रूसा को शीघ्र अतिशीघ्र भेजा जाना सुनिश्चित करें।
5. किसी भी प्रकार के अनियमित व्यय/भुगतान की जिम्मेदारी संबंधित प्राचार्य की होगी।



Dr. Sadhna Shrivastava  
IQAC Co-Ordinator  
S.L.P. Govt. P.G. College  
Morar, Gwalior



(डॉ. जयश्री मिश्रा)  
अपर सचिव

म.प्र.शासन, उच्च शिक्षा विभाग

निरन्तर...4....





## Grant Received from MPHEQIP Under World Bank Project

कार्यालय: प्राचार्य, शासकीय श्यामलाल पाण्डवीय महाविद्यालय, मुरार, ग्वालियर

राष्ट्रीय मूल्यांकन एवं प्रत्यायन परिषद् (NAAC) द्वारा प्रत्यायित " बी + " ग्रेड, वर्ष 2017

फ़ोन: 0751-2368320

E-mail hegcsipmorgwa@mp.gov.in

slpmorar@gmail.com

ग्वा., दिनांक: 05.09.2022

क्रमांक :994 /स्था /2022

प्रति,

अपर निदेशक,

MPHEQIP, विश्व बैंक परियोजना,

उच्च शिक्षा विभाग, मध्य प्रदेश शासन,

भोपाल

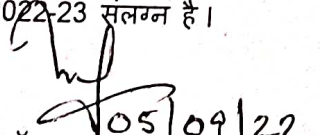
विषय: मध्य प्रदेश शिक्षा गुणवत्ता उन्नयन परियोजना (MPHEQIP) एवं क्वालिटी लर्निंग सेंटर (QLC) के अंतर्गत अकादमिक उत्कृष्टता गतिविधियों के आयोजन बाबत प्रस्तावित रूपरेखा 2022-23

सन्दर्भ: उपरोक्त विषय पर आपका पत्र क्रमांक 1903 / वि. बैं.परि./2022 दिनांक 14.07.2022

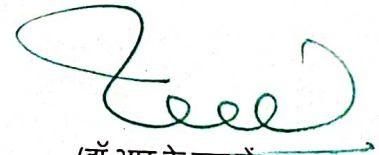
उपरोक्त विषय और सन्दर्भ के मध्य प्रदेश शिक्षा गुणवत्ता उन्नयन परियोजना (MPHEQIP) एवं क्वालिटी लर्निंग सेंटर (QLC) के अंतर्गत अकादमिक उत्कृष्टता गतिविधियों के आयोजन बाबत चयनित 301, शासकीय श्यामलाल पाण्डवीय महाविद्यालय, मुरार, ग्वालियर हेतु हेतु प्रस्तावित रूपरेखा 2022-23 संलग्न है।

  
05/09/2022  
(डॉ. मनीषा देशपांडे)

सदस्य, QLC/MPHEQIP

  
05/09/22  
(डॉ. अजय कुमार त्रिपाठी)

प्रभारी प्राध्यापक, QLC/MPHEQIP

  
(डॉ. आर.के.एस. सेंगर)

प्राचार्य

प्राचार्य

एच.एच.पी. शास. स्नातकोत्तर महाविद्यालय  
मुरार (ग्वालियर) म.प्र.





# 301, Govt. Shyamlal Pandaviya College, Morar, Gwalior

Date: 05.09.2022

List of various activities to be taken up by departments (Based on the proposals received and corrected rationally in response to letter no 1903 dated 14.07.2022, issued by SPD, World Bank Project)

Sl	Department	Resource Person	Activities	Amount Demanded	Amount Recommended	Proposed Months
1	Zoology	Dr. Rachna Joshi	02 Lectures	7000	7000	Oct.22- Jan23
2	Chemistry	Dr. Sadhna Shrivastava	1 day workshop on Computational Environmental Chemistry	10000	7000	Oct22- Dec22
3	Chemistry	Dr. Sadhna Shrivastava	Lectures	8000	8000	Oct22- Dec22
4	Chemistry	Dr. Sadhna Shrivastava	Industrial Visit to CIFRJ.U.&DRDO	3000	3000	Oct22- Dec22
5	Sports	Dr. L.S. Dhindsa	Lecture on Khelo India	10000	9000	Sept 22
6	S.V. Career Guidance Cell	Dr. A.K. Tripathi	28 days training on Office Automation	38000	30000 (for 25days)	Oct22- Dec22
7	S.V. Career Guidance Cell	Dr. A.K. Tripathi	28 days training on Competitive Exams	35000	30000 (for 25days)	Oct22- Dec22
8	S.V. Career Guidance Cell	Dr. A.K. Tripathi	08 days training on GD/Interview	10000	Not approved (Can be a part of above training)	Oct22- Dec22
9	History	Dr. Ghanshyam Uchariya	02 Lectures	5000	5000	Nov 22


  
प्रचार्य  
एच.एम.पी. शास. स्नातकोत्तर महाविद्यालय  
मोरार (ग्वालियर) म.प्र.

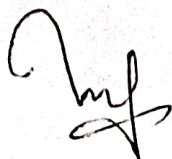


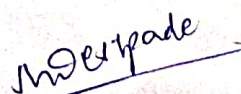
Page 2 of 5



Sl	Department	Resource Person	Activities	Amount Demanded	Amount Recommended	Proposed Months
10	Library	Dr.K.K.Shukla	Ref.Books,Online Journals,Journals, Question Banks etc	40000	24000	-----
11	Botany	Dr.B.B.Gupta	02Lectures	6000	6000	Sep22- Dec22
12	Botany	Dr.B.B.Gupta	Nursery/KVK Visit	3000	3000	Sep22- Dec22
13	Geography	Dr.A.K.Singh	3 Lectures on 1.bhugol nutan privityan 2.prithvi aur manav,3.bhugol mein remote sensing aur computer upyog	15000	15000	Dec22- Feb 23
14	Geography	Dr.A.K.Singh	Educational visit of 1 day	20000	15000	Jan 23
15	Women Empowerment	Dr.Asha Kumari	judo karate training of 15 days for girls	18000	18000	Sep22- Oct22
16	Women Empowerment	Dr.Asha Kumari	02Lectures on women empowerment	5000	5000	Nov22- Dec22
17	IQAC	Dr.Sadhna Shrivastava	3 Lectures on criteria 1 to 7	15000	15000	Oct22- Dec22
18	NCC Army Wing	Dr.Devendra Singh Gurjar	3 Expert Lectures on 1.sena mein career ki sambhavanayein; 2.samaj parivartan mein yuvaon ki bhumika ;3. Bharat ka gauravshali atit/NEP2020	15000	15000	Nov22- Feb23


  
 प्राध्यापक  
 रघु.एन.पी. शास्त्र. स्नातकोत्तर महाविद्यालय  
 मुरार (खालियर) म.प्र.

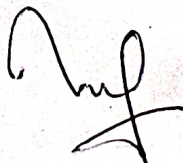


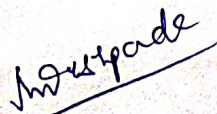




Sl	Department	Resource Person	Activities	Amount Demanded	Amount Recommended	Proposed Months
19	Chemistry	1.Dr.Mujeeb Khan ; 2.Dr.Jogender Singh; 3.Dr.Khushwant Singh	Micro Research Project on “ Heterocyclic Pyrimidine Derivatives:Facile Synthesis Characterisations, DFT Calculations and their Biological Studies”	Books and Journals - 5000; Equipments/Chemicals-40000; Travel-5000 Contingency-6000 <b>Total 56000</b>	Books and Journals - 5000; Equipments/Chemicals-40000; Travel-5000 Contingency-5000 <b>Total 55000</b>	
20	English	Dr.Lata Pallav	Micro Research Project on “A study of Women Characters in Selected Plays of Harold Pinter:	Books and Journals - 8000; Contingency-8000 <b>Total 16000</b>	Books and Journals - 8000; Contingency-7000 <b>Total 15000</b>	
21	Geography	Dr.Sagar Ghosh	Micro Research Project on “ Geospatial Analysis of Urbanisation Expansion and its impact on Surface Water Bodies in Gwalior Area”	Books and Journals - 4000; Equipments/Chemicals-3000; Travel-4000 Contingency-5000 <b>Total 16000</b>	Books and Journals - 3000; Equipments/Chemicals-3000; Travel-4000 Contingency-5000 <b>Total 15000</b>	
<b>Total Amount</b>					<b>300000/=</b>	

  
 प्रद्याय  
 एस.एल.पी. शास. स्नातकोत्तर महाविद्यालय  
 बुरार (ग्वालियर) म.प्र.

  
 4





N..B.: It is recommended by the Quality Learning Centre of Govt. Shyam Lal Pandaviya College (Code 301) that the unspent balance, if any, at last may be utilised by IQAC of this college for various useful activities under intimation to State Project Directorate S.P.D., Bhopal.

*MPHEQIP/mb*  
*05/09/2022*  
(Dr. Manisha Deshpande)  
Member, QLC/MPHEQIP

*[Signature]*  
*05/09/22*  
(Dr. A.K. Tripathi)  
Incharge Professor, QLC/MPHEQIP

*[Signature]*  
(Dr. R.K.S. Sengar)  
Principal

- प्राचार्य  
एस.एच.पी. शास. स्नातकोत्तर महाविद्यालय-  
भुसार (ग्यालियर) म.प्र.

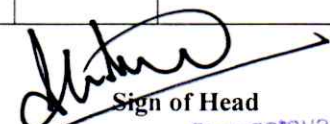
# SHYAM LAL PANDVIYA Govt. P. G. College Morar Gwalior

(M.P.)

## Equipment received under World Bank /Rusa Project

Name of Department:		Chemistry			
Equipment received under World bank/Rusa Project:		1591900.00			
Sessions:		from 2018-2023			
S.N.	Name of instrument	Date	Cost in Rs.....	Activity	Photographs
1	Vaccum Evaporator with Chiller	08-02-2022	799990.00	Research/Practical	
2	Colorimeter	08-02-2022	24640.00	Research/Practical	
3	Heating Mantle	03-10-2020	4130.00	Research/Practical	
4	Hot Plate	03-10-2020	9720.00	Research/Practical	
5	Magnetic stirrer	03-10-2020	29160.00	Research/Practical	
6	Table top weight scale	03-10-2020	2450.00	Research/Practical	
7.	Centrifuge machine	03-10-2020	31000.00	Research/Practical	
8	Microwave Owen	10-10-2020	11476.00	Research/Practical	
9	Water double distillation	15-11-2020	54203.00	Research/Practical	
10	Single Channel Var. Pipette	15-02-2021	1701.00	Research/Practical	
11	Double beam UV visible spectrophotometer	21-06-2021	609400.00	Research/Practical	
12	pH meter	21-06-2021	14030.00	Research/Practical	

  
प्राचार्य

  
Sign of Head  
Dr. (Smt.) Sadhna Shrivastava  
Professor  
Department of Chemistry  
Govt. S.L.P. (P.G.) College  
Morar, Gwalior

Note: Necessary documents and the photos of labs with students working on instrument must be necessary attached.

शासिकांनी लेखणीतून घ्यावयाचे असलेले प्रत्येक यंत्राचे फोटो घ्यावेत. (म.प्र.)  
दुरार ग्वालियर (म.प्र.)

Zoology

**SHYAM LAL PANDVIYA Govt. P. G. College Morar  
Gwalior (M.P.)**

Name of Department:		ZOOLOGY		
Equipment received under World bank/Rusa Project:		WORLD BANK / RUSA PROJECT		
Sessions:		from 2018-2023 TOTAL = RS. 96,419/-		
S.N.	Name of instrument	Cost in Rs.....	Activity	Photographs
1. (RUSA)	Pathological and Research Microscope	@ 10,700/- x2 (GST Included) Date - 31/07/2020.	Study of various slides.	
2. (RUSA)	Hot Air Oven	@ 21,200/- (GST Included) Date - 31/07/2020	Microtomy sterilization of glassware. Drying.	-
3. (WORLD BANK)	Water Distillation Unit Single Still	@ 53819/- (GST Included) Date - 13/11/2020	Water purification to make distil water for prepa- ring solutions	

*R. Joshi*  
Sign of Head  
Dr. Rachana Joshi

**Note:** Necessary documents and the photos of labs with students working on instrument must be necessary attached.

*Zoo*  
**पानवीय**  
शासकीय एस.एल.पी. स्वातंत्र्य संशोधन संस्थान  
मुरार ग्वालियर (म.प्र.)



Botany Type text here

## SHYAM LAL PANDVIYA Govt. P. G. College Morar Gwalior (M.P.)

Name of Department:		BOTANY				
Equipment received under World bank/Rusa Project:		WORLD BANK & MPHEQIP				
Sessions:		from 2018-2023				
S.N.	Date	Name of instrument	Cost in Rs.....	Activity	Photographs	BILL
1.		Water Distillation unit	54203/- (unit-1)	For making distilled water	347	07-13-11-20
2.		Unilab Microscope	43890/-	Anatomical Studies	541	07-29-11-2020
3.		Binocular Microscope Pathological	(Total units-11) 24,999/-		-	07-31-12-2020
4.		Pathological Research Microscope	(unit-1) 21,400/-	" "	-	07-31-12-2020
5.		Max. Min Thermometer	(unit-2) 711.86/-(unit 02)	For climatic change in temp.	1437	07-26-3-24
6.		Quadrats	1688/-(unit-20)	Ecological studies	1437	07-26-3-24
7.		Digital Thermometer	3728.82 (unit-02)	For taking temp	1437	07-26-3-24
8.		Autoclave portable	13500/- unit-1	For sterilization	1437	07-26-3-24
9.		Camera lucida Microtype	7610/- unit 02	stamatal studies	6142	07-18-3-24
		Camera lucida (Prism)	1610/- unit 02	Drawing figures	6142	07-18-3-24
10.		Dissecting Microscope	6250/- unit-5	Flower Dissection & Anatomical studies	6142	07-18-3-24
11.		Binocular Dissecting Microscope	7900/- unit-5	Anatomical Studies	3107	07-14-3-24

Sign of Head

**Note:** Necessary documents and the photos of labs with students working on instrument must be necessary attached.

20/4/24

**प्राचार्य**

शासकीय एस.एल.पी. स्नातकोत्तर महाविद्यालय  
मुरार ग्वालियर (म.प्र.)

Library

**SHYAM LAL PANDVIYA Govt. P. G. College Morar  
Gwalior (M.P.)**

Name of Department:		Library Science		
Equipment received under World bank/Rusa Project:		World Bank		
Sessions: 2022-23		from 2018-2023		Dr 16/3/2023
S.N.	Name of instrument	Cost in Rs.....	Activity	Photographs
(1)	Computer 13 Preloaded OS-M.S office Academic Version Antivirus Keyboard and mouse (5-year warranty)	03-246030		
(2)	All in one Multi-fund Printer	05-3000		
(3)	Barcode Reader with Barcode Printer	05-14700		

Sign of Head

(Keshav Kumar Sharma)  
Library

**Note:** Necessary documents and the photos of labs with students working on instrument must be necessary attached.



प्राचार्य  
शासकीय एस.एल.पी. स्नातकोत्तर महाविद्यालय  
मुरार ग्वालियर (म.प्र.)



सतपुड़ा भवन, भोपाल

क्र 82/वि.बै.परि./2023

भोपाल, दिनांक 16/01/2023

प्रति,

Grant Received from MPHEQIP for E-Library

प्राचार्य,

247 शासकीय महाविद्यालय.

(संलग्न सूची अनुसार)।

विषय- विश्व बैंक वित्त पोषित परियोजना "मध्यप्रदेश उच्च शिक्षा गुणवत्ता उन्नयन परियोजना" अंतर्गत ई-लाइब्ररी में लगने वाले उपकरणों के क्रय की प्रशासकीय स्वीकृति के संबंध में।

सन्दर्भ- कार्यकारी समिति की बैठक दिनांक 13.01.2023 के निर्णय के पालन में।

---000---

विश्व बैंक द्वारा पोषित "मध्यप्रदेश उच्च शिक्षा गुणवत्ता उन्नयन परियोजना" अंतर्गत 247 महाविद्यालयों में ई-लाइब्ररी में लगने वाले विभिन्न आवश्यक उपकरणों (कम्प्यूटर, प्रिंटर, बारकोड स्कैनर आदि) क्रय किया जाना है।

2 महाविद्यालयों द्वारा आई.डी.पी तथा विभाग द्वारा ई-लाइब्ररी हेतु आयोजित प्रशिक्षण में समय-समय पर की गई मांग के अनुक्रम में 247 महाविद्यालयों में लगने वाले विभिन्न आवश्यक उपकरणों (कम्प्यूटर, प्रिंटर, बारकोड स्कैनर आदि) का क्रय करने हेतु एतद द्वारा निम्न विवरण एवं शर्तों के आधार पर प्रशासकीय स्वीकृति प्रदान की जाती है -

S. N	Equipment	Qty	Estimated Unit Rate	Estimated Cost Including 18 % GST	Total Value including GST
1	Computer i3 with Preloaded OS, MS Office Academic Version, Antivirus, keyboard and Mouse (5-year warranty)	3	69500	82010	246030
2	All in one Multi-Function Printer	1	30000	35400	35400
3	Barcode reader with Barcode printer	1	14700	17346	17346
Total Including 18% GST Per College					298776
Total Including 18% GST for 247 College					73797672

शर्तें -

1. क्रय की जाने वाली सामग्री गुणवत्तापूर्ण एवं उच्च स्तरीय हो, जिसकी जवाबदेही संबंधित प्राचार्य की होगी।
2. राज्य स्तर पर उपकरणों का स्पेसिफिकेशन तथा अनुमानित दारों का निर्धारण किया गया है, जिसका उपयोग महाविद्यालय कर सकेंगे।
3. उक्त स्पेसिफिकेशन का उपयोग महाविद्यालय द्वारा किया जाता है तो स्पेसिफिकेशन के अनुमोदन हेतु राज्य स्तर पर प्रेषित किये जाने की आवश्यकता नहीं होगी तथा महाविद्यालय GeM पोर्टल पर निविदा जारी कर सकेगा।
4. महाविद्यालय अपनी आवश्यकता अनुसार स्पेसिफिकेशन में कोई परिवर्तन करना चाहें तो कर सकेगा, जिसकी अनुमति राज्य परियोजना संचालनालय से प्राप्त करना आवश्यक होगा।



				Govt College Bhaidehi, Betul	298776
	3104	Bhopal	Betul	Govt College Bhaidehi, Betul	298776
08	3210	Bhopal	Hoshangabad	Govt Mahatma Gandhi Smrati College Itarsi, Hoshangabad	298776
					298776
109	3607	Jabalpur	Chhindwara	Govt Arts College, Sausar, Chhindwara	298776
110	2605	Bhopal	Rajgarh	Govt Swami Vivekanand College Sarangpur, Rajgarh	298776
					298776
111	804	Sagar	Chhatarpur	Raja Harpalsingh Govt College Harpalpur Chhatarpur	298776
					298776
112	1805	Ujjain	Ujjain	Govt Vikram College Khachrod Ujjain	298776
					298776
113	3807	Jabalpur	Balaghat	Govt College Lanji	298776
					298776
114	1004	Sagar	Sagar	Govt Nehru College Deori, Sagar	298776
115	2503	Indore	Burhanpur	Govt Jawaharlal Nehru College, Neapanagar, Burhanpur	298776
					298776
116	3211	Bhopal	Hoshangabad	Govt Girls College, Itarsi, Hoshangabad	298776
117	3610	Jabalpur	Chhindwara	Govt College Bichhua Chhindwara	298776
118	3505	Jabalpur	Mandla	Govt. College Nainpur, Mandla	298776
119	3310	Jabalpur	Katni	Govt Tilak College Katni	298776
120	2206	Indore	Dhar	Shri Rajendra Suri Govt. College Saradarpur-Rajgarh	298776
121	3304	Jabalpur	Jabalpur	Govt M K B Arts and Commerce College Jabalpur	298776
					298776
122	2105	Indore	Jhabua	Govt Mahaveer College, Petlawad, Jhabua	298776
123	2607	Bhopal	Rajgarh	Govt College Khilchipur	298776
124	803	Sagar	Chhatarpur	Govt Chhatrasal Maharaja College, Maharajpur, Chhatarpur	298776
					298776
125	2312	Indore	Indore	Govt New Law College, Indore	298776
126	3805	Jabalpur	Balaghat	Govt College, Paraswada, Balaghat	298776
127	1009	Sagar	Sagar	Govt. Post Graduate College Garhakota, Sagar	298776
128	301	Gwalior	Gwalior	Govt shyamlal pandaviya college, morar, gwalior	298776
129	2308	Indore	Indore	Govt College, Depalpur, Indore	298776
130	3704	Jabalpur	Seoni	Govt Arts and Commerce College, Kewlari, Seoni	298776
131	1304	Rewa	Rewa	Govt Madhav Sadashiv Rao Golbalkar College, Rewa	298776
132	1010	Sagar	Sagar	Govt. College, Khurai, Sagar	298776
133	1301	Rewa	Rewa	Govt Model Adarsh Science College Rewa	298776
134	2309	Indore	Indore	Govt College, Sanwer, Indore	298776
135	703	Sagar	Tikamgarh	Govt College Niwari Tikamgarh	298776
136	3504	Jabalpur	Dindori	Govt Chandravijay College Dindori	298776
137	2502	Indore	Khandwa	Govt Girls College Khandwa	298776
138	3203	Bhopal	Hoshangabad	Govt P G college Pipariya	298776
139	2407	Indore	Khargone	Govt College Mandaleswar, Khargone	298776
140	1409	Rewa	Annooppur	Govt College Kotma Annooppur	298776
141	3804	Jabalpur	Balaghat	Govt Shankarlal Patel Arts & Law College Waraseoni Balaghat	298776
142	1306	Rewa	Rewa	Govt Shahid Kedarnath College Mauganj, Rewa	298776
143	1907	Ujjain	Shajapur	Govt College Kalapipal	298776
144	3507	Jabalpur	Mandla	Govt College, Bhuabichhiya, Mandla	298776
145	3402	Jabalpur	Narsinghpur	Govt Shyamsundar Mushran Girls College, Narsinghpur	298776
					298776
146	2202	Indore	Dhar	Govt Girls College Dhar	298776
147	3706	Jabalpur	Seoni	GOVT. DEGREE COLLEGE CHHAPARA	298776
148	1901	Ujjain	Shajapur	Govt Balkrishna Sharma Navin P G College, Shajapur	298776
149	3206	Bhopal	Hoshangabad	Govt Kusum College, Seonimalwa	298776
150	1407	Rewa	Shahdol	Govt Arts and Comm College, Jaysinghnagar, Shahdol	298776
					298776
151	1507	Rewa	Sidhi	Govt. arts and Commerce College, Majhauri, Sidhi	298776
					298776
152	1807	Ujjain	Ujjain	Govt College, Mahidpur, Ujjain	298776
153	3207	Bhopal	Harda	Govt Arts and Commerce College Harda	298776
154	3703	Jabalpur	Seoni	Swami Vivekanand Govt College Lakhnadon Seoni	298776
155	1006	Sagar	Sagar	Govt. PG College Bina	298776



कार्यालय प्राचार्य श्याम लाल पांडवीय शासकीय स्नातकोत्तर महाविद्यालय  
मुरार, ग्वालियर ☎ 0751.2368320

(राष्ट्रीय मूल्यांकन एवं प्रत्यायन परिषद (NAAC) बैंगलोर द्वारा प्रत्यायित 'B+' ग्रेड )

क्रमांक 231 / लेखा / 2023

ग्वालियर, दिनांक 18.03.2023

Payment order for E-Library भुगतान स्वीकृति आदेश

विश्व बैंक द्वारा पोषित म.प्र. उच्च शिक्षा गुणवत्ता उन्नयन परियोजना अंतर्गत महाविद्यालय में ई-लाइब्रेरी में लगने वाले निम्नानुसार उपकरणों का क्रय योजना अंतर्गत मद क्रमांक 44-2202-03-103-7464-1201/1202/1203-v-22-013 के अंतर्गत फर्म M/s Sunrise system, Gwalior को कुल रू. 298690/- (In words Two lakh Ninety eight thousand six hundred ninety rupees only) का भुगतान किये जाने की वित्तीय स्वीकृति प्रदान की जाती है। टीडीएस नहीं काटे जाने से संबंधित प्रमाण पत्र प्रस्तुत किया गया है।

सं. क्र.	सब खाउचर नं.	लेखाशीर्ष	फर्म/व्यक्ति/खाता धारक का नाम	इनवॉइस नं.	कुल राशि	कटौती राशि	शुद्ध राशि	वेण्डर नं.	टीडीएस कयो नहीं काटा गया
1	214	44-2202-03-103-7464-1201-v-22-013	M/s Sunrise system, Gwalior	214	298690	0	298690	V140200026 7611744	टीडीएस नहीं काटे जाने के संबंध में प्रमाण पत्र प्रस्तुत किया गया है।

अतः उपरोक्त फर्म/फर्मों को कुल राशि रू. 298690/- (In words Two lakh Ninety eight thousand six hundred ninety rupees only) वेण्डर के माध्यम से ई-भुगतान हेतु पारित करने की स्वीकृति प्रदान की जाती है।

प्रमाण पत्र

प्रमाणित किया जाता है कि सामग्री क्रय करने में म0प्र0 भण्डार क्रय नियम 2015 का पालन किया गया है। क्रय सामग्री की मात्रा एवं गुणवत्ता सही है। इसे स्टॉक रजिस्टर पर दर्ज किया गया है।

अतः इस बिल का प्रथम बार आहरण किया जा रहा है।

पृ.क. 231/01/लेखा/2023

दिनांक. 18.03.2023

प्रतिलिपि :-

1. जिला कोषालय अधिकारी, कोषालय मोतीमहल, ग्वालियर।
2. लेखाशाखा, शास. एस.एल.पी. महाविद्यालय, मुरार।

(डॉ. आर. के. एस. सेगर)

प्राचार्य  
प्राचार्य

श्यामलाल पाण्डवीय शास. स्नातकोत्तर  
महाविद्यालय मुरार ग्वालियर  
कोषालय कोड क्रमांक 1403802010  
दूरभाष क्रमांक 2368320

(डॉ. आर. के. एस. सेगर)

प्राचार्य  
प्राचार्य

श्यामलाल पाण्डवीय शास. स्नातकोत्तर  
महाविद्यालय मुरार ग्वालियर  
कोषालय कोड क्रमांक 1403802010





Azadi  
Amrit M

# Invoice

**SELLER DETAILS:**

Address: **SUNRISE SYSTEMS**  
M/S SUNRISE SYSTEM,, G-5,, GANPATI PLAZA,, CITY  
CENTRE, Gwalior, MADHYA PRADESH, 474011

Contact No : 09300376432  
GSTIN: 23ABZPN8871A1Z8

GeM Invoice No: GEM-29

GeM Invoice Date: 16-Mar

Order No: GEMC-5116877636

Order Date: 15-Mar

[Click here to download seller invoice](#)

**SHIPPING TO:**

Consignee Name: Vikas Saxena  
Address: principal govt slp college morar gwalior GWALIOR  
MADHYA PRADESH 474006

Contact No: 0751-2323187-

**BILL TO:**

Buyer Name: Vikas Saxena , Accountant  
Address: principal govt slp college morar gwalior Gwalior  
MADHYA PRADESH 474006 Department of Higher Education  
Madhya Pradesh N/A  
Department: Department of Higher Education Madhya Pradesh  
Office Zone: THE PRINCIPAL GOVT SLP COLLEGE MORAR  
GWALIOR  
Organisation: N/A

Seller Tax Invoice Number	Seller Tax Invoice Date	Dispatch Mode	Dispatch Date
986	16-Mar-2023	Manual	16-Mar-2023

Place of Supply	Place of Supply State (State/UT Code)	Supply Type	Buyer GSTIN Number
Buyer Location	Madhya Pradesh / 23	Intra-State	

Product Description	HSN Code	Measurement Unit	Supplied Qty	Unit Price	Total Price inclusive all Taxes
Barcode Scanner	8471	pieces	1	Rs. 5000.00	Rs. 5000.00
				Taxable Amount	Rs. 4237.29
				Tax Rate (%)	18
				CGST	Rs. 381.36
				SGST/UTGST	Rs. 381.36
				Cess Rate (%)	0.000
				Cess Amount	Rs. 0.00
				Cess in Quantum	Rs. 0.00
				Rounding Off	Rs. -0.01
<b>Grand Total</b>					<b>Rs. 5000.00</b>

I /We hereby declare that our firm/company has been specifically excluded from the requirement to comply with GST e-invoicing provisions vide Notification number 13/2020-Central Tax dated 21 March 2020, as amended up to date. Accordingly, at present, we are not covered under the ambit of GST e-invoicing provisions. We do hereby declare that once the provisions become applicable to us, we shall issue the duly complied e-invoicing.





कार्यालय: प्राचार्य, श्यामलाल पाण्डवीय शासकीय महाविद्यालय, मुरार, ग्वालियर

राष्ट्रीय मूल्यांकन एवं प्रत्यायन परिषद् (NAAC) द्वारा प्रत्यायित " बी + " ग्रेड , वर्ष 2017

फ़ोन: 0751-2368320

E-mail hegcsplpmorgwa@mp.gov.in

slpmorar@gmail.com

20.07.2023

## Utilisation Certificate

It is certified that an amount of Rs. 15000/= sanctioned by Quality Learning Centre (QLC) of this college under Academic Excellence 2022-23 sanctioned by World Bank Assisted Project MPHEQIP was utilised fully for the purpose for which it was sanctioned. Report has already been submitted to QLC.

(Dr.Sagar Ghosh)  
Asst.Professor/Principal Investigator  
Dept of Geography,  
Shyamlal Pandviya Govt P.G.College,  
Morar,Gwalior

(Dr.Ajay Kumar Tripathi)  
Incharge Professor,MPHEQIP/QLC  
Mob: 9425341846

(Dr.R.K.S Sengar)  
Principal  
Mob:6265011940

**PRINCIPAL**  
**GOVT S.L.P. P.G. COLLEGE**  
**MORAR, GWALIOR**



## Micro Research Project Report

# *Geospatial Analysis of Urbanisation and Its Impact on Water Resource in the Gwalior District*

Submitted

to

**The Quality Learning Centre (MPHEQIP)**

**Shyamlal Pandviya Govt. P.G. College**

**Morar, Gwalior**

**2023**



**Sagar Ghosh**

**Project Coordinator**

**Assistant professor**

**Department of Geography**

**Shyamlal Pandviya Govt. P.G. College**



**Dr. A.K. Singh**

**Project Evaluator**

**Head and Associate Professor**

**Department of Geography**

**Shyamlal Pandviya Govt. P.G. College**

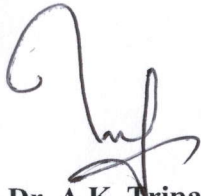
**Dr. Anand Kar Singh**

**Associate Professor**

**P.G. Deptt. of Geography & Research Centre**

**S.L.P. Govt. P.G. College Morar**

**Gwalior- 474006 (M.P.)**



**Dr. A.K. Tripathi**

**QLC (MPHEQIP) Coordinator & Professor**

**Shyamlal Pandviya Govt. P.G. College**



**Dr. R.K.S. Sengupta**

**Principal**

**Shyamlal Pandviya Govt. P.G. College**



## SUMMARY

For the growth and development of humans, water is a very important resource. According to the UN World Water Development Report 2019, almost one-third of the world's population lacks access to clean drinking water, and the gap between supply and demand is constantly widening, which is a very serious problem in developing countries. Safe and preserved surface water resources are directly correlated with the accessibility of clean and safe water. By replenishing groundwater, providing the opportunity for rainfall harvesting, holding enormous volumes of water, reducing urban flooding, treating waste water using artificial wetlands, and other methods, surface water resources play a significant part in closing the supply-demand imbalance. However, quick, uncontrolled, and unplanned land development degrades these resources. A balance between water supply and demand in urban areas must therefore be established, and surface water resources must be protected through land use planning and management. Protecting surface water resources, ensuring their quantity and quality, lowering pollution levels, and positioning the resources for sustainability can all be accomplished through the examination of the effects of land use changes.

The spatial distribution of natural resources in large-scale areas shows the influence of human activities on land usage, and also has an impact on surface water resources.

The conversion of water bodies to high rise building development, disposal of chemicals, debris, and non-point pollutants by nearby land uses has been shown in numerous studies to have a direct impact on the quantity and quality of water. The investigation of land use changes, trends, status, direction, and their impacts on surface water resources have been the focus of some studies.

However, these studies do not include extensive land use change research over extended stretches of time, particularly for places with high water stress in emerging nations like India and Gwalior-Chambal Region.

Analysing land use changes, trends, and status in India can help to maintain urban surface water resources.



The study shows the spatial dynamics of urbanisation, surface and ground water level status through geospatial mapping and statistical evidence. The objective of this study is to analyse the impact of land use land cover change on water resource of a rapidly growing water stressed semi dry urban region. The research analyses data from Census report, local governments reports and spatial data from remotely sensed images. The research finds rapid transformation of open land to the built-up area, particularly in the North-West, North, Eastern parts of the district along the transportation network to Delhi. Rapid and uncontrolled growth of urban areas is the result of, firstly, the natural increase in population, and secondly, migration into urban areas from its surrounding villages. In total, migration significantly contributes to the urban growth of the district.

Economic expansion and its associated development of infrastructural amenities, which frequently forces uncontrolled urban sprawl, are major factors accelerating urbanisation. The capacity of cities to provide technological infrastructure and services like energy, education, health care, transportation, and sanitation is generally put under pressure by the fast growth of urban areas. Massive urban sprawl happens as a result of governments having less money to maintain infrastructure and provide essential services, which has an impact on the local urban ecosystem. Rapid urbanisation and low levels of technology in many developing nations are projected to have an impact on ecosystem services and increase pressure on urban communities to adapt to these changes. The study of LULC changes frequently to forecast the demand on urbanisation in the future in accordance with water security.


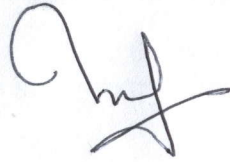
The district continues to experience water crisis such as water deficiency during the peak summer, groundwater degradation and water accessibility.

As summer comes to an end, the groundwater level worsens even further. This already water stressed regions' water balance would be further burdened by further population and built-up densification. The northern part of the district will account for the majority of the water demand in near future. Further increases in groundwater extraction will become inevitable if the land use planning, zoning and water use regulation execution is done not efficiently along with the increasing urban change. Due to increasing water extraction and less groundwater recharge, groundwater levels will decline faster. The loss of low-lying areas and wetlands, increased surface runoff, and flooding and waterlogging brought on by the intensification of built-up areas are some of the additional environmental externalities. The findings will help the policymakers to comprehend the water crisis and consider appropriate mitigation strategies.

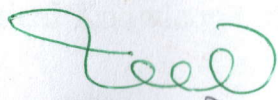


Urban sprawling creates an unauthorised, haphazard high rise settlement development without any strong land use regulations, because it is located outside of the city boundary and which in turn results in an increasing ecological footprint which in turn increasing the alarming concern for water resource management. If we cannot manage the present situation through a proper land use regulation zoning, once a day will come, when this will be harmful on the basic livelihood of residents. The land resource governing body and the planning institutions should take an immediate action to formulate a proper land use planning and regulations with an effective exesicuion of the regulations for water securty strategy for this unplanned land sue areas. The haphazard and unplanned growth should not be let loose on the market. They should also decide whether to fully urbanise these areas or retain rural characteristics.

प्राचार्य  
एस.एल.पी. शास. स्नातकोत्तर महाविद्यालय  
मुरार (ग्वालियर) म.प्र.



(Dr. Sagar Ghosh)  
Asst. Professor of Geography



(Dr. Sagar Ghosh)  
Asst. Professor of Geography  
Principal Investigator  
प्राचार्य  
एस.एल.पी. शास. स्नातकोत्तर महाविद्यालय  
मुरार (ग्वालियर) म.प्र.



कार्यालय: प्राचार्य, श्यामलाल पाण्डवीय शासकीय महाविद्यालय, मुरार, ग्वालियर

राष्ट्रीय मूल्यांकन एवं प्रत्यायन परिषद् (NAAC) द्वारा प्रत्यायित " बी + " ग्रेड , वर्ष 2017

फ़ोन: 0751-2368320

E-mail hegcsipmorgwa@mp.gov.in

slpmorar@gmail.com

20.07.2023

## Utilisation Certificate

It is certified that an amount of Rs. 20000/= sanctioned by Quality Learning Centre (QLC) of this college under Academic Excellence 2022-23 sanctioned by World Bank Assisted Project MPHEQIP was utilised fully for the purpose for which it was sanctioned. Report has already been submitted to QLC.

(Dr.Lata Pallav)

Asst.Professor/Principal Investigator  
Dept of English ,  
Shyamlal Pandviya Govt P.G.College,  
Morar,Gwalior

(Dr.Ajay Kumar Tripathi)

Incharge Professor,MPHEQIP/QLC

Mob: 9425341846

(Dr.R.K.S Sengar)

Principal

Mob:6265011940

**PRINCIPAL**

**GOVT S.L.P. P.G. COLLEGE  
MORAR, GWALIOR**



# Micro Research Project Report

STUDY OF WOMEN CHARACTERS IN SELECT PLAYS OF HAROLD

PINTER

A Project

Submitted to

Madhya Pradesh Higher Education Quality Improvement

Project (MPHEQIP)

SPD World Bank

By

Dr. Lata Pallav

Assistant Professor Department of English



Govt. Shyamlal Pandviya P.G. College

Morar Gwalior M.P. (301)



## DECLARATION

With deep gratitude, I take the opportunity to acknowledge to Madhya Pradesh Higher Education Quality Improvement Project (MPHEQIP) World bank project to sanction the amount for academic excellence to our college code 301. I declare that the following project is my own work for which I used only the sources and literature mentioned, and that this work has not been used in the source of other university studies or in order to acquire the same or another type of project.

*Lata*  
22-2-23

Dr. Lata Pallav

Assistant Professor

Department of English

  
 Dr. K. S. Kushwah  
 Professor & Head  
 Dept. of English  
 S. L. P. Govt. College, Morar  
 Gwalior (M.P.)

*[Handwritten Signature]*  
— प्राचार्य —

डॉ. एल. पी. शास. स्नातकोत्तर महाविद्यालय  
बुरार (ग्वालियर) म.प्र.



TOPIC - "STUDY OF WOMEN CHARACTERS IN  
SELECT PLAYS OF HAROLD PINTER."  
ENGLISH

ABSTRACT

MICRO RES. PROJECT

Its no gainsaying the fact that Harold Pinter (10th October, 1930) occupies an eminent place in the Dramatists of the New Age. He is the product of a post-war generation that has attempted to reject the evils of the twentieth century and present a new outlook on society. In the galaxy of the absurdist his name is highly placed by the competent critics of the New Age. The Theatre which was lying barren could come into existence because of these playwrights. Infact 1956 is a landmark in the Post War British Literature and the dramatists like John Osborne, Samuel Beckett, John Arden, Arnold Wesker and Harold Pinter treasured the domain of New Drama and made it to reach its heights. At the moments, the new dramatists were striving to explore themes and situations through naturalistic presentation of life permeating throughout western world. Harold Pinter dealt all the aspects of contemporary life with his utmost care and artistic excellence. His plays present a vast panoramic picture of emerging values of the Post-War British life. Through his dramatic distinction, he could be considered the soul representative, almost in all his plays, of the working class of the then British Society, struggling for its existence.

Life is a struggle for survival in Pinter's world. The quest of the characters is then for survival; what we have at the end of a play is a realignment of forces to ensure the possibility of survival. This work offers a feminist approach to the literary work of Harold Pinter by focussing on their female characters and trying to offer a psychoanalytic approach to them. The female figures are not only important to the dramas themselves but they are also crucial to understand the process by which patriarchy attempted to oppress women during the decades. In many cases women resulted such oppression and encouraged audiences to view their position in the society differently. It is here that Pinter's women move from a subservient to a dominant role; often they

Dr. A. S. Kushwah  
Professor & Head  
Dept. of English  
S. L. P. Govt. College, Morar  
Gwalior (M.P.)

5  
प्रो. एल. पी. शास. स्नातकोत्तर महाविद्यालय  
द्वारा (स्नातकोत्तर) न. नं.



reveal a decisiveness and a ruthlessness which are not there in the early portrayals. They seem to play their roles with considerable aplomb - of mother, wife and whore. Often these roles are combined into one perplexing persona. As the characters gain more complexity the quest is not only for survival but for a realization of their selves, which for Pinter seems to mean the realization of their libidinous selves. A close study of Pinter's plays reveal three types of women- subservient, emergent and dominant. These terms do not have any political overtones. They are to be understood in terms of Pinter's microcosm, the world as he depicts it, a world in which inner realities take precedence over external details. The term "emergent" is used here in the sense of the unpredictable appearance of entirely new properties or traits at certain critical stages or levels in the course of action in a play. The Rose in *The Room*, and Meg in *The Birthday Party* are subservient; Flora in *A Slight Ache*, Stella in *The Collection* and Sarah in *The Lover* are emergent; and Ruth in *The Homecoming*, Anna and Kate in *Old times* and Emma in *Betrayal* dominants.

A study of the images of women in Pinter's plays are restricted by two factors: the difficulty in deciphering the motivations of the characters, and the stratagems they adopt which do not necessarily bring out their essential traits and predilections. However, it is possible to arrive at some tentative conclusions regarding these portrayals if we understand the nature of the dramatic conflict in Pinter's plays. The characters are in the grip of an extreme anxiety the nature of which they fail to comprehend. The grim question they face every moment of their life is how to cope with their deep sense of loneliness, inadequacy and fragmentation, and how to survive in a world that seems to threaten their very existence. In this struggle for survival especially physical, the men seem to dominate in the early plays; the women playing a subordinate role. In the later plays the concern is not merely for survival, but survival with a possibility of



self-realization, which from the point of view of these characters seems to be the realization of their libidinous selves.

To be alone, given the existential anxiety, is to be lonely. In spite of the realism of some of his plays, Pinter remains close to the Theatre of the Absurd. It is to his credit that through a fusion of the techniques of the avant-garde theatre and the cliches of the conventional theatre he has presented through his female characters the anxiety, the loneliness, and the vitality of the twentieth century women. In their struggle lies the possibility of their liberation; in their choices lie the limits of freedom. Pinter's irony seems to mediate between these two imperatives. In this ironic mediation lies that grey territory between illusive hope and abject despair that Pinter's women show the determination to guard against both internal and external threats.

Thus it is very clear that the coming ages will surely hold Pinterian concepts which he narrated to his readers through his writings. Undoubtedly, Pinterian place will remain immortal to those who love drama and put dramatic arts into practice. Many of Pinterian themes will lead on to the minds of thinkers, critics, writers of the age to come and they will surely enjoy Pinter's treatment of women characters which is nicely dealt in his plays.

Detailed Report is available  
with MPHEOIP Cell.

*[Handwritten signature]*

*[Handwritten signature]*  
प्राचार्य

ब.ए.पी. शास. स्नातकोत्तर महाविद्यालय,  
मुरार (ग्वालियर) म.प्र.

7

*[Handwritten signature]*  
22-2-23

Dr. Lata Pallav

Asstt. Prof.

English Deptt.

37 36





कार्यालय: प्राचार्य, श्यामलाल पाण्डवीय शासकीय महाविद्यालय, मुरार, ग्वालियर

राष्ट्रीय मूल्यांकन एवं प्रत्यायन परिषद् (NAAC) द्वारा प्रत्यायित " बी + " ग्रेड , वर्ष 2017

फ़ोन: 0751-2368320

E-mail hegcsipmorgwa@mp.gov.in

slpmorar@gmail.com

20.07.2023

## Utilisation Certificate

It is certified that an amount of Rs. 55000/= sanctioned by Quality Learning Centre (QLC) of this college under Academic Excellence 2022-23 sanctioned by World Bank Assisted Project MPHEQIP was utilised fully for the purpose for which it was sanctioned. Report has already been submitted to QLC.

(Dr. Muzeeb Khan)

Asst. Professor/Principal Investigator

Dept of Chemistry,

Shyamlal Pandviya Govt P.G. College,

Morar, Gwalior

(Dr. Ajay Kumar Tripathi)

Incharge Professor, MPHEQIP/QLC

Mob: 9425341846

(Dr. R.K.S Sengar)

Principal

Mob: 6265011940

**PRINCIPAL**

**GOVT S.L.P. PG COLLEGE  
MORAR, GWALIOR**



# Micro Research Project Report

## HETEROCYCLIC PYRAZINE AND PYRIMIDINE DERIVATIVES: FACILE SYNTHESIS, CHARACTERIZATIONS, AND THEIR DFT CALCULATION

A Project  
Presented to  
Madhya Pradesh Higher Education Quality Improvement Project (MPHEQIP) /  
SPD World Bank

by

Dr. Muzeeb Khan  
Dr. Jogender  
Dr. Khushwant Singh



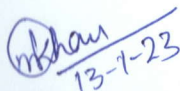
**Government Shyamlal Pandaviya College,  
Morar, Gwalior (301)**  
December 2022

Copyright © Muzeeb Khan 2022




## Certificate and Acknowledgement

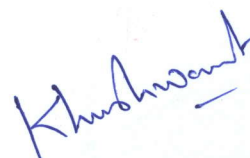
We the undersigned take the opportunity to acknowledge and gratitude to Madhya Pradesh Higher Education Quality Improvement Project (MPHEQIP)/ World bank project to sanctioned amount for academic excellence to our college code 301. We certify that the present work was originally done by us and that no work has been mentioned without citation.

  
13-1-23


**Dr. Muzeeb Khan**  
Assistant Professor  
Department of Chemistry

  
10/1/23  
**Dr. Jugender**  
Assistant Professor  
Department of Chemistry



  
Singh  
13/01/2023

**Dr. Khushwant Singh**  
Assistant Professor  
Department of Chemistry



  
प्रचार्य

बस.एल.पी. शास. स्नातकोत्तर महाविद्यालय  
मुरार (ग्वालियर) म.प्र.



## SUMMARY OF THE PROJECT

(Financial Assisted by QLC/MPHEQIP, 2022-2023)

**Topic:** Heterocyclic Pyrazine and Pyrimidine Derivatives: Facile Synthesis, Characterizations and Their DFT Calculation

We are hereby submitting the micro project on the above mentioned title which are summarise below.

Nitrogen rich, pyrazine and pyrimidine are two conventional six-membered heterocycles that are known for over a century and have been explored by various research groups. Subordinates of pyridine have been utilized as drugs, pesticides, and various explorations in biological fields. The pyrimidine heterocyclic moiety is an essential constituent of DNA and RNA of living organisms. Moreover, Pyrimidine based organic molecules such as gemcitabine, cytarabine, 5-fluoro deoxyuridine, capecitabine, and decitabine has been used for the cure of both solid and hematological malignancies. Additionally, the many pyrimidine derivatives are found in numerous common natural products, such as marine alkaloids. In this manner, there is a significant exploration enthusiasm for the improvement of newly synthesized derivatives that contain these nitrogen rich heterocycles and consequently, these are screened for their organic connections, particularly cytotoxicity against different malignant growth cell lines. The ethynyl bridges ( $-C\equiv C-$ ) are another significant assisting units that has been joined especially in organometallic edifices of Au(I) and Pt(II) metal elements and the subsequent derivatives have been used as "inorganic" therapeutics specialists for anticancer medications. Further, we are interested to study or calculation of their energy minimized structure or molecular docking structure with the help of DFT. Considering the above mentioned properties of these useful nitrogen rich heterocycles (pyrimidine, pyridine, and ethynyl), have been incorporated in a single organic compound. Moreover, we are also interested to examine their cytotoxicity against different types of cancer disease cell lines such as HT-29, MCF-7, MDA-MB-231 and SK-HEP-1. The acquired information will be helpful in studying and comparing the reports available in the literature. We are hopeful that this project will add new research in the field of applied chemistry that is useful to the society.

*Muhammad*  
13-01-23

Dr. Muzeeb Khan  
Assistant Professor  
Govt. SLP (PG) College,  
Morar, Gwalior  
(0301)

*JV*  
13/01/23

Dr. Jogender  
Assistant Professor  
Govt. SLP (PG) College,  
Morar, Gwalior  
(0301)

*Khushwant Singh*  
13/01/2023

Dr. Khushwant Singh  
Assistant Professor  
Govt. SLP (PG) College,  
Morar, Gwalior  
(0301)

Detailed Report is  
available with  
MPHEQIP cell.

*[Signature]*

*[Signature]*  
*[Signature]*  
प्रचारक

बस. व. पी. वास. स्नातकोत्तर महाविद्यालय  
मुरार (ग्वालियर) म.प्र.

*o/c*