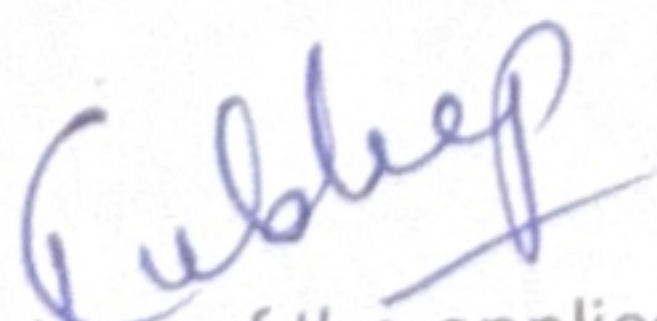


Section-B (Score Sheet)

Sr. No.	Particulars	Marks	Self-Appraisal Marks	Marks Awarded
1	Academic Record	40	20.06	
2	Additional Qualifications	15	13	
3	Teaching Experience and Research	20	10	
4	Co-Curricular Activities	7.5		
5	Sports	5		
	Total	87.5	43.06	

1. Academic record: Maximum 40 marks

Sr. No.	Particulars	Marks	Self-Appraisal Marks	Supporting Document Page no.	Marks Awarded
1	Above 55 % marks in Master's degree	0.4 mark for each percentage	4.3	4	
2	Above 55 % marks in Graduation	0.3 mark for each percentage	6.78	3	
3	Above 55 % marks in 10+2	0.2 mark for each percentage	6.72	2	
4	Above 55 % marks in Matriculation	0.1 mark for each percentage	2.26	1	
	Total (Out of 40)		20.06		


 (Signature of the applicant)

2. Additional Qualification: Maximum 15 Marks

Sr. No.	Particulars	Marks	Self-Appraisal Marks	Supporting Document Page no.	Marks Awarded
1	Graduation with honours in the relevant subject	03 marks			
2	Ph.D.	10 marks	10	6	
3	JRF	05 marks			
4	NET	03 marks	03	5	
5	SLET/SET	02 marks			
Total (Out of 15)			13		

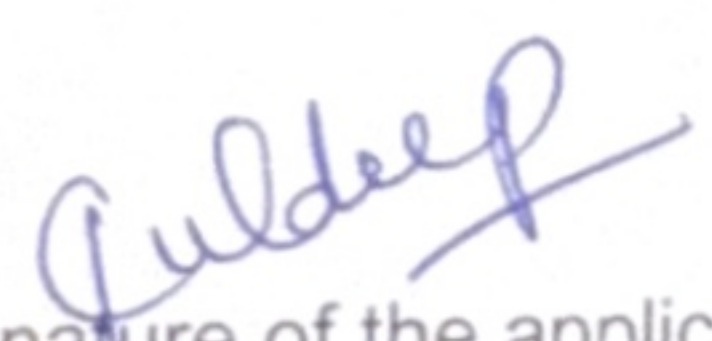
3. Teaching Experience and Research: Maximum 20 Marks

A. Teaching Experience: Maximum 10 Marks

Sr. No.	Particulars	Marks	Self-Appraisal Marks	Supporting Document Page no.	Marks Awarded
1	Teaching Experience after acquiring eligibility qualifications in the relevant subject	1 mark for each academic year (0.5 mark per semester)			
Total (Out of 10)					

B. Research: Maximum 10 Marks

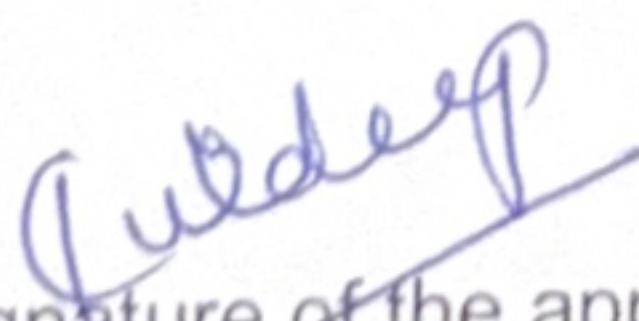
Sr. No	Particulars	Marks	Self-Appraisal Marks	Supporting Document Page no.	Marks Awarded
1	Research Publications	03 marks for each research publications published in Peer-Reviewed or UGC-listed Journals 3×3	9	7, 8, 9	
2	Paper Presentation in Conferences	International (Abroad)- 05 each			


(Signature of the applicant)

		International (Within country)- 3 each			
		National- 2 each $\times 4$	8	10, 11, 12, 13	
		State/University- 1 each			
Total (Out of 10)			10		

4. Co-Curricular Activities- 7.5 marks

Sr. No.	Particulars	Marks	Self-Appraisal Marks	Supporting Document Page no.	Marks Awarded
1.	NCC (Maximum 5 Marks)	NCC 'C' Certificate- 05 Marks			
		NCC 'B' Certificate- 02 Marks			
2.	NSS (Maximum 5 Marks)	NSS National Award- 05 Marks			
		NSS State Award- 02 Marks			
3.	Position in Competitions like Debate/Declamation/Quiz/Poetic recitation/Fine Art etc. (Maximum 5 marks)	5 Marks for each National Level position			
		2 Marks for each State/Inter-University Level Position			


 (Signature of the applicant)

		1 Mark for each position in Zonal Youth Festival			
4.	Participation in Republic Day Parade, New Delhi	Maximum 2 Marks			
Total (Out of 7.5)					

5. Sports (Maximum 5 Marks)* -

Sr. No.	Particulars	Marks	Self-Appraisal Marks	Supporting Document Page no.	Marks Awarded
1	International Level Position	5 Marks			
2.	National Level Position	First- 3 Marks, Second- 2 Marks, Third- 1 Mark			
3.	State/Inter-University Level Position	First- 2 Marks, Second & Third- 1 Mark			
Total (Out of 5)					

*Certificate of Gradation from Sports Department of Haryana Govt. is mandatory to claim the marks.

Note:

- During recruitment process, rules/instructions framed by the Govt. from time to time shall be applicable.
- Sports certificates must be issued for such tournament recognized by the State/Centre Govt.
- In case of SC candidates, marks shall be allotted as per same criteria mentioned above.


(Signature of the applicant)

SERIAL NO. AH.071601

ENROLMENT NO. 04-8-BH-639-0030

Board of School Education Haryana



Kuldeep



Roll No. 255233

SECONDARY SCHOOL EXAMINATION

Certificate of Qualification

Certified that **KULDEEP**

Son/Daughter of

Shri **RAMDHARI**

and Smt. **KITABO**

born on (date of birth) **23/10/1990** (TWENTY THIRD OCTOBER NINETEEN HUNDRED NINETY)

has appeared from **GRAMIN BAL VIHAR SR SEC SCHOOL BURE (HISAR)**

in the Secondary School Examination of this Board held in **MARCH-2006**

and has been declared **Qualified** obtaining the Grade Point Average of **08.80**

after having studied the requisite number of subjects and obtaining the qualifying grade in each subject.

DETAIL OF MARKS/GRADES

Sr. No.	Subject	Marks Obtained	Grade	Grade Description
1	HINDI	068	B+	GOOD
2	ENGLISH	080	A+	OUTSTANDING
3	MATHEMATICS	070	A-	VERY GOOD
4	SOCIAL SCIENCE	085	A+	OUTSTANDING
5	SCIENCE & TECHNOLOGY TH 026 PR 025	051	B	AVERAGE
6	HEALTH & PH. EDUCATION TH 057 PR 029	086	A	EXCELLENT
Grade Point Average (GPA):			08.80	

GPA HAS BEEN CALCULATED OUT OF BEST FIVE GRADES.

EQUIVALENT PERCENTAGE = GPA X 10

ENVIRONMENTAL / MORAL EDUCATION GRADE : **EXCELLENT**

SUPW GRADE : **EXCELLENT**

BHIWANI

DATED : MAY 04, 2006

[Signature]
SECRETARY

[Signature: Kuldeep]

क्रमांक Serial No. AL- 150990

नार्मांकन संख्या Enrolment No. 04-BH-639-0030

अनुक्रमिक Roll No. 3210319110



हरियाणा विद्यालय शिक्षा बोर्ड

Board of School Education Haryana

ISO 9001:2008 CERTIFIED

वरिष्ठ माध्यमिक प्रमाणन परीक्षा

SENIOR SECONDARY CERTIFICATE EXAMINATION

अंकतालिका सहित योग्यता प्रमाण-पत्र Certificate of Qualification with Mark Sheet

प्रमाणित किया जाता है कि This is to certify that

KULDEEP / कुलदीप

आत्मज / आत्मजा Son/Daughter of श्री/Sh

RAMDHARI / रामधारी

और and श्रीमती/Smt.

KITABO / किताबो

ने has appeared from

SINGH RAM MEMORIAL SR SEC SCHOOL, UMRA (HISAR)

से वर्ष in the year

MARCH 2011

दस्तावे सहित (व श्रेणी अंक औसत सहित) योग्यता प्राप्त की है and has been declared qualified with subject-wise grades & with Grade Point Average mentioned below :

क्रमांक Sr.No	विषय Subject	प्राप्तांक Marks Obtained			
		लिखित(बाह्य) Theory(Ext.)	सतत एवं व्यापक मूल्यांकन CCE	प्रायोगिक Practical	योग Total
1	ENGLISH(CORE)	79	19	XX	098
2	HINDI (CORE)	60	19	XX	079
3	GEOGRAPHY	49	18	19	086
4	PHYSICAL EDUCATION	53	20	19	092
5	FINE ARTS	21	18	48	087

क्रमांक Sr.No	विषय Subject	प्राप्तांक Marks Obtained			
		लिखित(बाह्य) Theory(Ext.)	सतत एवं व्यापक मूल्यांकन CCE	प्रायोगिक Practical	योग Total
1	ENGLISH(CORE)	69	19	XX	088
2	HINDI (CORE)	71	18	XX	089
3	GEOGRAPHY	46	18	19	083
4	PHYSICAL EDUCATION	51	19	19	089
5	FINE ARTS	23	19	48	090

क्रमांक Sr.No	विषय Subject	परिणाम Result				
		प्रथम से. भाराश 1st Sem. Weightage 50%	द्वितीय से. भाराश IInd Sem. Weightage 50%	कुल योग Aggregate	श्रेणी Grade	श्रेणी अंक Grade Point
1	ENGLISH(CORE)	49	44	093	A+	10
2	HINDI (CORE)	40	45	085	A	09
3	GEOGRAPHY	43	42	085	A+	10
4	PHYSICAL EDUCATION	46	45	091	A+	10
5	FINE ARTS	44	45	089	A	09

सामान्य ज्ञान एवं जीवन कौशल General Awareness & Life Skills Grade:

GOOD

कुल योग Total Marks: 443

श्रेणी अंक औसत Grade Point Average (GPA): 09.60

सह-पाठ्य क्रियाकलापों में उत्कृष्टता के लिए श्रेणी अंक औसत/कुल योग में वृद्धि (केवल प्रमाण-पत्र प्रस्तुत करने पर) Enhancement in GPA /Total Marks for excellence in co-curricular activities, if any (valid only if relevant certificate is produced): XX / XXX

अंतिम कुल योग Final Total Marks: 443

अंतिम श्रेणी अंक औसत Final GPA: 09.60

किंवदन्ती Bhiwani

दिनांक Dated: JUNE 09, 2011

सचिव SECRETARY



Kurukshetra University, Kurukshetra

(Established by the State Legislature Act XII of 1956)

DUPLICATE

Results-cum-Detailed Marks Card

Bachelor of Art (Semester - VI)

Examination May, 2014

Name : KULDEEP

Roll No : 1113310192

Father's Name : RAMDHARI

Regn. No.: 11-GH-1015

Subject(s)/Paper(s)	Marks Obtained	Minimum Pass Marks	Maximum Marks
English	66	35	100
Hindi Compulsory	78	35	100
Geography	89	35	100
History	82	35	100
Total	315	140	400
Marks Obtained in I To V Semester	1524	--	2000
Grand Total	1839	--	2400

Result: Pass (One Thousand Eight Hundred Thirty Nine Marks)

KURUKSHETRA

DATED: April 18, 2017

ASSISTANT REGISTRAR (CS)

Kuldeep

Sr. No. 2K16 / 195534

MGEO2 - 77

Roll No. : 61620
Regd. No: 2014-GEOG-08

Panjab University

RESULT- cum- DETAILED MARKS CERTIFICATE

Master of Arts [Geography] 4th Semester Examination
May, 2016

Name : KULDEEP
Father's Name : Shri RAMDHARI
Mother's Name : Smt. KITABO DEVI

Details of Marks

Sr. Subject Name[Code] No.	Credits Earned	Th.	Pr.	In.	In.	Sub.	Min.	Min.	Min.	Min.	Max.	Max.	Max.	Max.
				Th.	Pr.	Tot.	Pass	Pass	Pass	Pass	Mar.	Mar.	Mar.	Mar.
							Mar.	Mar.	Mar.	Mar.	Th.	Pr.	In.	Sub.
1. Regional Planning [RPL]	4	55	x	13	x	68	35	28	x	x	80	x	20	100
2. Field based project Report [FPR]	4	x	53	x	15	68	35	x	35	x	x	80	20	100
3. Quantitative Methods in Geography [QMG]	4	30	26	8	x	64	35	18	11	x	50	30	20	100
4. Urban Geography [URG]	4	57	x	18	x	75	35	28	x	x	80	x	20	100
Total Credits & Marks Obtained (if passed)	16					275								400
Marks obtained in Semester I,II & III	48					777								1200
Grand Total	64					1052								1600

Abbreviations Used: Th.=Theory, Pr.=Practical, In.=Internal Assess., Sub.=Subject, Tot.=Total, Min.=Minimum, Max.=Maximum, Mar.=Marks, **/**=Not Applicable

RESULT:

Pass: Total Marks obtained in words (One Thousand and Fifty-Two only)

CHANDIGARH

August 08, 2016

Controller of Examinations

Electronic Certificate No.: 172037913



University Grants Commission

NATIONAL EDUCATIONAL TESTING BUREAU



NATIONAL ELIGIBILITY TEST FOR ASSISTANT PROFESSOR

UGC Ref. No.: 37913/(NET-NOV 2017)

Roll No.: 12017375

Certified that **KULDEEP**

Son/Daughter of **RAMDHARI**

and



KITABO

had applied for the UGC-NET for eligibility for

Assistant Professor held on 05-11-2017 in the **GENERAL**

category and qualified by securing marks at par with the qualifying cut-off
for **GENERAL** category

in the Subject **GEOGRAPHY**

As per the information provided by the candidate, he/she had completed his/her Master's degree or equivalent examination at the time of applying for NET.

The date of eligibility for Assistant Professor is the date of declaration of NET result, i.e.,
2nd January, 2018, OR the date of completion of Master's degree or equivalent examination with required percentage of Marks within two years from the date of declaration of NET result, i.e., by 1st January, 2020, whichever is later.

This is an electronic certificate only and its authenticity should be verified from the UGC by the employer. This electronic certificate can also be verified by scanning QR Bar Code printed on the electronic certificate.

Validity of this electronic certificate is forever.

Date of Issue: 19-03-2018

Surender Joshi

Head
NET Bureau

Note: a) UGC has issued the electronic certificate on the basis of information provided by the candidate in his/her Application Form. The appointing authority should verify the original records/certificates of the candidate while considering him/her for appointment, as the Commission is not responsible for the same. The candidate must fulfil the minimum eligibility conditions for NET as laid down in the notification for UGC-NET.

b) Wherever SC/ST/OBC/PWD is shown in the UGC Ref. No., the institution/recruitment body should check the relevant documents of that category.

Kuldeep



ਪੰਜਾਬ ਯੂਨੀਵਰਸਿਟੀ

Doctor of Philosophy

(In the faculty of Arts)

Certified that Kuldeep , Begun No. 2014-geog-08 , son of

Shri. Randhari , and of the Haryana State , has obtained the degree of Doctor of Philosophy of this University on the result of the examination held in 2025 .

Given under the seal of the University



Controller of Examinations

Handwritten signature

Registrar

Vice Chancellor

Handwritten signature

Chancellor

Handwritten signature

Urban Growth in Haryana: An Overview

KULDEEP, SMITA BHUTANI

Abstract

In recent decades, Haryana has witnessed significant urban growth, driven by a confluence of factors such as economic development, industrialization, infrastructural improvements, and increasing rural-to-urban migration. These factors have contributed to urban concentration, expansion of large cities, changes in land use, and a shift in organizational and governance patterns from rural to metropolitan models. From 1971 to 2011, the proportion of urban residents in Haryana increased substantially, from 17.66% in 1971 to 34.88% in 2011. This growth is not solely attributable to the increase in the urban population; it also reflects a rise in the number of towns and an expansion of their territorial boundaries. The urban growth comprises of three basic components: Natural increase (addition made by excess of births over deaths), net in migration, and reclassification. Reclassification refers to changes in the urban population resulting from the creation of new towns or adjustments in the territorial boundaries of existing towns. This paper highlights the pattern of urbanization at tehsil level and dynamics of urban growth in Haryana by focusing on the role of various components of urban growth.

Keywords: Urban, urban growth, territorial jurisdiction, spatial pattern, Tehsil

Introduction

Urban growth refers to the rise in the population of urban areas over a specific period. This growth is driven by social, economic, and political factors that contribute to urban concentration, the expansion of large cities, changes in land use, and the shift from rural to metropolitan patterns of organization and governance. The urban growth comprises of three basic components: Natural

Kuldeep

Urban Sprawl And Its Causes: A Case Of Karnal City, Haryana

Paper ID: 21096 | Submission Date: 2026-01-02 | Acceptance Date: 2026-01-23 | Publication Date: 2026-01-25

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DOI: 10.5281/zenodo.18667306

For verification of this paper, please visit:

<http://www.socialresearchfoundation.com/resonance.php#8>**Kuldeep**Research Scholar
Geography
Panjab University
Chandigarh, Punjab, India**Rahul**Research Scholar
Geography
Panjab University
Chandigarh, Punjab, India**Smita Bhutani**Professor
Geography
Panjab University
Chandigarh, Punjab, India**Abstract**

Urban areas across the world have experienced unprecedented growth and expansion over the past few decades. In India, this transformation is evident in the steady rise of the urban population, which increased from 79 million in 1961, constituting 17.92 per cent of the total population, to 388 million in 2011, accounting for 31.30 per cent. This rapid urbanisation is primarily driven by large-scale rural-urban migration and the concentration of economic opportunities, services, and infrastructure in major cities. However, unplanned and dispersed urban growth has resulted in extensive urban sprawl, leading to the loss of productive agricultural land, depletion of open and green spaces, and degradation of surface water bodies. These impacts highlight the necessity for systematic assessment and monitoring of urban sprawl. Therefore, there is an urgent need to study, understand, and quantify urban sprawl. In this context, the present study attempts to monitor urban sprawl and its driving factors in Karnal city over a four-decade period from 1981 to 2021. Multi-temporal Landsat satellite imagery was analysed in a GIS environment to support informed decision-making and promote sustainable urban development.

Keywords

Urban Sprawl, Karnal, Urbanization, Urban Expansion, Landsat

Introduction

One of the hallmarks of urbanization in the twenty-first century is urban sprawl, which is the unchecked, low-density growth of cities into nearby rural and peri-urban areas (Pradana & Dimiyati, 2024). Cities have been hubs for resource consumption and economic production since the Industrial Revolution, which has resulted in fast, frequently unplanned, and unregulated urbanization. The term "sprawl" was originally used by William Whyte, while Earle Sumner Draper initially proposed the concept of urban sprawl in 1937 to show how metropolitan limits are eroding (Sharma et. al 2024). Urban sprawl is a complicated process that takes many different spatial forms and typologies, such as leapfrog, ribbon, and continuous development. In addition to creating difficult spatial planning issues, the many kinds of urban expansion have complicated social and environmental repercussions (Ozelkan, & Eren, 2025). Several variables such as population growth, economic restructuring, transportation infrastructure, and inadequate urban planning frameworks, contribute to the spatial phenomenon of urban sprawl (Panda, 2024). Urban sprawl can worsen social inequality mainly through its effects on housing affordability and access to vital urban resources and infrastructure. It can also lead to increased pollution, loss of wildlife habitat, and strain on infrastructure (United Nations, 2025). Recent developments in geospatial technologies have made it possible for urban managers and planners to examine and track urban growth and conditions, which was previously unattainable (Sumari et al., 2019; Shao et al., 2021). Globally, built-up land has expanded much faster than population growth, especially in Asia and Oceania, due to densification and outward urban expansion. Built-up area per capita increased from about 43 square metres in 1975 to nearly 63 square metres in 2025 and is projected to reach around 74 square metres by 2050 if current trends continue (United Nations, 2025). Urban areas worldwide have undergone unprecedented growth and spatial expansion over recent decades. In India, this trend is reflected in the substantial increase in the urban population, which rose from 79 million in 1961, representing 17.92 per cent of the total population, to 388 million in 2011, accounting for 31.30 per cent. This accelerated pace of urbanisation is largely attributed to large-scale rural-urban migration and the increasing concentration of economic activities, infrastructure, and services within major urban centres. However, the largely unplanned and dispersed nature of this growth has resulted in extensive



SPATIO-TEMPORAL DYNAMICS OF BUILT-UP EXPANSION AND MAJOR PROCESSES DRIVING URBAN GROWTH IN BAHADURGARH CITY, HARYANA (1981-2021)

Kuldeep, Rahul and Smita Bhutani

Abstract

Urban expansion is a major spatial process shaping contemporary cities, particularly in rapidly urbanising regions. This study analyses the pattern and drivers of built-up expansion between 1981 and 2021 in Bahadurgarh City using Landsat imagery and field survey. The study found that in 1981 the total built-up area was 133.9 hectare and it rose to 5231.8 hectare in 2021. The built-up area was rise by 39 times over a period of 40 years, registering an average annual increase of about 127.5 hectares and an approximate annual growth rate of 9.6 percent. It is also noted that the total population of the city increased from 37,488 in 1981 to 211,860 in 2021. However, despite this substantial population growth, urban expansion led to a significant decline in population density, which decreased from 280 persons per hectare in 1981 to 40 persons per hectare in 2021. This paper also identifies the key factors that have steered the expansion of Bahadurgarh city. Major drivers include its strategic proximity to the National Capital Territory of Delhi, rapid industrialisation, growth of the real estate sector, improvements in transportation infrastructure, and supportive government policies aimed at enhancing basic facilities and urban amenities. The monitoring and analysis of urban expansion are essential for promoting sustainable development and ensuring efficient and balanced land-use planning.

Introduction

Urban expansion refers to the outward spatial growth of urban areas into surrounding rural and peri-urban landscapes, driven by rapid urbanization and changing socioeconomic conditions. Urban expansion is one of the major outcomes of transformations resulting from population agglomeration in urban centres (Cobbinah and Darkwah, 2016; Mosammam et al., 2017). The rapid growth of urban areas worldwide is expected to continue due to increasing urban populations,

Dev Samaj College for Women

Ferozepur City

Highest Ranked College in India with 3.75/4 CGPA, Re-Accredited by NAAC 2013-14 /

DBT Star College Status Awarded by the Ministry of Science & Technology, New Delhi

The College Of Excellence Status By the UGC / The Potential for Excellence & Star Status in Science Deptt. by the UGC

Affiliated To Panjab University, Chandigarh / Managed By The Dev Samaj Society, Sector 36-b, Chandigarh

National Seminar

on

"Skill India : Status, Challenges, Opportunities and Scope with
Special Reference to Hospitality And Tourism"

In collaboration with Indian Tourism and Hospitality Congress (ITHC)

on 11th September, 2019

CERTIFICATE

This is to certify that Prof./Dr./Mr./Ms. Kuldeep from Panjab University
Chandigarh attended the National Seminar as a Keynote Speaker / Chairperson / Resource Person /
Delegate / Organizer. He/She also presented a paper titled Special distribution of tourism activities in Indian Urban Centres.
National Seminar on "Skill India : Status, Challenges, Opportunities and Scope with Special Reference to Hospitality and Tourism,"
organized by the Department of Hospitality and Tourism Management, DSCW.

Nirmal Singh

Chief Patron

Shriman Nirmal Singh Dhillon
Secy. Dev Samaj & Chairman, DSCW

Dr. Madhu Prashar

Patron

Dr. Madhu Prashar
Secretary, DSCW
National & State Awardee

Navdeep Kaur

Co-Patron

Mrs. Navdeep Kaur
Officating Principal
DSCW

Mr. Kushal Singh

Organising Secretary

Mr. Kushal Singh
Head of the Department,
H.T.M, DSCW

Kuldeep





ਪੰਜਾਬ ਪ੍ਰਦੂਸ਼ਣ ਕੰਟਰੋਲ ਬੋਰਡ
Punjab Pollution Control Board

Dr. B. R. Ambedkar Centre, Panjab University, Chandigarh
in collaboration with

Punjab Pollution Control Board (Govt. of Punjab), Patiala

National Seminar on
CLIMATE EMERGENCY: NO TIME LEFT; ACT NOW

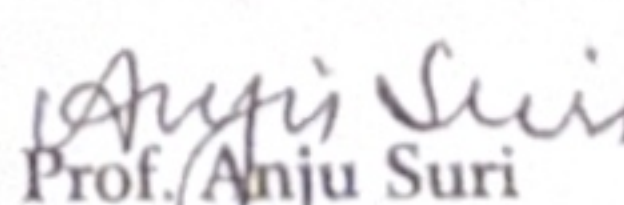
Certificate of Participation

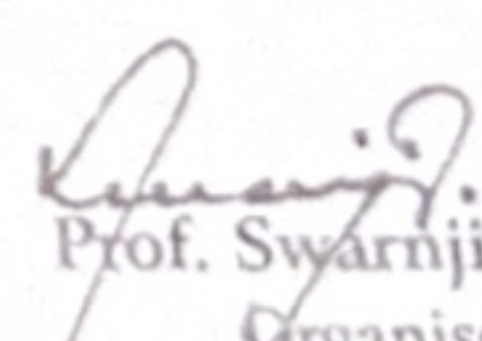
Serial No. A 126

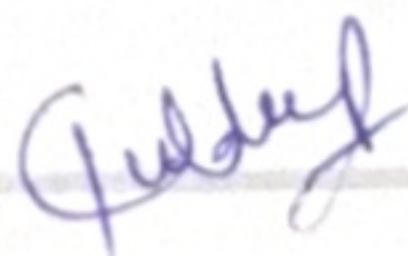
This is to certify that Mr./Ms./Dr. Kuldeep of Deptt. of Geography
_____ has participated/chaired/co-chaired/ acted as volunteer participated
in National Seminar on CLIMATE EMERGENCY: NO TIME LEFT; ACT NOW held at Panjab University,
Chandigarh on 15th February, 2020. He/She has also presented a paper entitled climate
Change in Urban Environment: Some lessons from Global cities
He/She won — * — Prize in the Paper Presentation.


Prof. (Dr.) Devinder Singh
Coordinator

Dr. B. R. Ambedkar Centre & Seminar


Prof. Anju Suri
Organiser
Seminar


Prof. Swarnjit Kaur
Organiser
Seminar





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CHASCON-2024

NATIONAL CONFERENCE

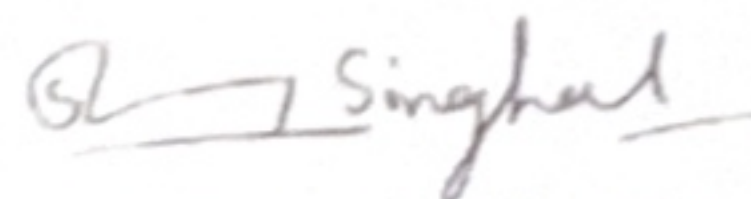
ON

"Indigenous Technologies for Viksit Bharat"

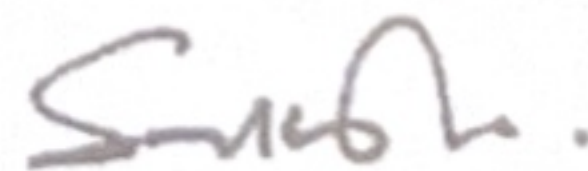
November 6-8, 2024

Certificate of Presentation

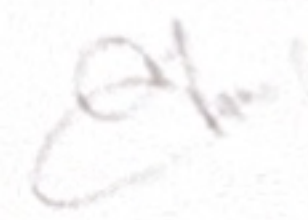
Certified that Prof./Dr./Mr./Ms. KULDEEP of
Dept of Geography, Panjab University, chd. participated and
gave an oral / poster presentation entitled "Urban expansion and its
drivess in Karnal: A spatio-temporal perspective." in the
Section of 17th Chandigarh Science Congress
(CHASCON-2024), organized by Panjab University, Chandigarh in association with CRIKC from
November 6-8, 2024.



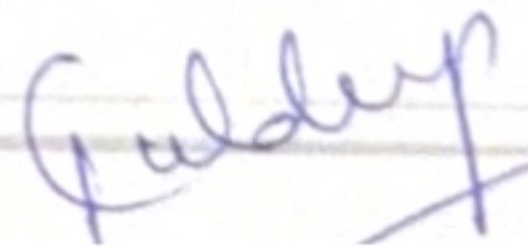
Prof. Sonal Singhal
Co-coordinator



Prof. Sakshi Kaushal
Co-coordinator



Prof. Y. K. Rawal
Coordinator





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INSTITUTE OF SOCIAL SCIENCE EDUCATION AND RESEARCH
PANJAB UNIVERSITY, CHANDIGARH

in collaboration with
POPULATION RESEARCH CENTRE, PU

TWO-DAY NATIONAL SEMINAR
on
"POPULATION: DYNAMICS, DEVELOPMENT AND SUSTAINABILITY"

Sr. No. 63/NIS P

28-29 March, 2025

CERTIFICATE OF APPRECIATION

This is to certify that Prof./Dr./Mr./Ms. Kuldeep of
Department of Geography, Panjab University, Chandigarh participated
as Rapporteur/Organiser/Volunteer/Delegate in the Two-Day National Seminar on "Population: Dynamics, Development and
Sustainability" organised on 28-29 March, 2025 by PU-ISSER in collaboration with PRC, PU. He/She also made a Paper
Presentation entitled, "Urban Growth in Haryana: An Overview"
and won — Prize.

Anju Suri

Seminar Coordinator
Professor Anju Suri
Coordinator, PU-ISSER

K Abbi

Seminar Co-coordinator
Professor Kumool Abbi
Director, PRC, PU

Kuldeep