

## **A Brief CV of Ajay Kumar**

**1. Specialization:** City Planning

**2. Qualification:** Ph.D, NIT Patna (2018)  
MCP, IIT Kharagpur (2008)  
B.Arch, BCE Patna (Now NIT Patna) (2002)

**3. GATE Qualified:** AIR-55 with 95.39 percentile, 2005

**4. Employment:**

Assistant Professor (AGP – Rs.8000), NIT Patna (30/08/2013 to till date)  
Assistant Professor (AGP – Rs.6000), NIT Patna (13/01/2009 to 29/08/2013)  
Senior Field Architect Jaypee Group, Noida (01/07/2008 to 5/1/2009)  
Architect, S.M. Bagley & Associates, New Delhi (06/12/2004 to 5/7/2006)  
Architect, Sinha Associates, Patna (01/3/2004 to 5/12/2004)

**5. Research Work:**

Research Project/Consultancy Project completed	: 05
No of Journal publication	: 11
Conference Paper	: 21
Ph.D Supervised	: 02
MURP dissertation supervised	: 14

**6. Research Works**

Expert lectures delivered	: 10
Conference organized as Chairman	: 1
Workshop/FDP/STC organized as Coordinator	: 3

**7. Achievement/Award/ Prize/ Certificate etc. won:**

1. Selected for Deputy Architect, **Group 'A' Central Architect Service (CAS)**, through UPSC in CPWD, Ministry of Urban Development, Govt. of India.
2. Qualified GATE (**AIR-55 with 95.39 percentile**) from Architecture Stream and awarded a scholarship for PG program 2006-08
3. **2<sup>nd</sup> Prize** in Academic Quiz Competition in **NOSPLAN - 2007** in JNTU Hyderabad.

**8. Journals Publications:**

1. A. K. Maurya, R. Kumar, and A. Kumar, "Evaluation of daylight performance in classrooms through retrofitting in the composite climate of eastern India", Civil Engineering and Architecture, vol. 12, no. 2.
2. A. K. Maurya, R. Kumar, and A. Kumar, "Assessing Window Design's Impact on Daylight Uniformity in Classrooms in Patna, India", Eng. Technol. Appl. Sci. Res., vol. 13, no. 5, pp. 11898–11903, Oct. 2023, <https://doi.org/10.48084/etasr.6212>.

3. K. Srivastava and A. Kumar, "The Impact of Road Side Friction on the Traffic Flow of Arterial Roads in Varanasi", Eng. Technol. Appl. Sci. Res., vol. 13, no. 4, pp. 11157–11165, Aug. 2023, <https://doi.org/10.48084/etasr.5897>.
4. K. Srivastava and A. Kumar, "Critical Analysis of Road Side Friction on an Urban Arterial Road", Eng. Technol. Appl. Sci. Res., vol. 13, no. 2, pp. 10261–10269, Apr. 2023, <https://doi.org/10.48084/etasr.5603>.
5. S. Kumari, A. Kumar, R. Kumar, and A. H. M. Fetais, "Assessing residential satisfaction parameters and its socio-economic characteristics of low-income group public housing in Lucknow city," International Journal of Indian Culture and Business Management, vol. 29, no. 3, pp. 335–352, Jan. 2023, <https://doi.org/10.1504/IJICBM.2023.132448>.
6. S. Kumari, A. Kumar, and R. Kumar, "Regression model for residential satisfaction in low-income group public housing in Lucknow, India," International Journal of Indian Culture and Business Management, vol. 1, Jun. 2022, <https://doi.org/10.1504/IJICBM.2022.10050006>.
7. S. Kumari, A. Kumar, and R. Kumar, "Land readjustment as a technique of urban land management: -A case of Aya Nagar, New Delhi," International Journal of Engineering and Advanced Technology, vol. 9, no. 1, pp. 361–365, Oct. 2019. <https://doi.org/10.35940/ijeat.A9347.109119>
8. Kumar, A., Das, B.K., Rajak, F. Retail Attractiveness through Level of Urbanization and Imageability of Intra-Urban Nodes of Indian Cities: Case Study of Patna. International Journal of Civil Engineering and Technology (IJCET), Volume 9, Issue 8, August 2018, pp. 454–462. (ISSN Print: 0976-6308 and ISSN Online: 0976-6316).
9. Prasad. B.N., Das, B K., Kumar, A. Spatial Development of Bihar with Patna as a Growth Pole: Possibilities and Constraints. Journal of the Institute of Town Planners, India. Vol-9, Number-1. Jan-Mar 2012. (ISSN 0537-9679)
10. Kumar, A., Das, B. K. Identification of Potential Commercial Locations in Patna Urban Area. International Journal of Research in Computer Application and Management. Volume No: 1 Issue No 2, April 2011 (ISSN-2231-1009)
11. Das, B. K., Kumar, A. Sustainability: Exploring the Ancient India and Current Practices. Journal of Sustainability. Issue 3, No 2, Nov 2010.

## 9. Conferences Publications:

1. Ajay Kumar, Sustainable and green building materials for green building construction, 6th -9th March 2023, International Conference on Advances in Structural and Geotechnical Engineering (ICASGE'23) held at Hurghada, Egypt.
2. Ajay Kumar; Amit Kumar Bala, Path to Urban Sustainability by use of IoT (2021), pp 35-46, International Conference on Intelligent Energy Management in Smart Cities (ICIEMSC-2021), organized on 25th to 26th November 2021 by UEM Jaipur. River Publishers, e-ISBN: 9788770227520, doi: <https://doi.org/10.13052/rp-9788770227520>
3. Amit Kumar Bala; Ajay Kumar, Way Forward with Best Practices in Transportation Systems (2021), 2nd International Conference on "International Conference on Futuristic and Sustainable Aspects in Engineering and Technology (FSAET 2021)" organized from 24-25 Dec 2021 by GLA University Mathura.
4. Ajay Kumar & Amit Kumar, Bala, Barrier to Accessibility of person with Disabilities in Urban Transport System, 2nd National Conference on Recent Advances in Civil Engineering RACE-II, (47), 2nd National Conference on Recent Advances in Civil Engineering RACE-II, NIT Patna, June 2019.
5. Supriya Kumari, Ajay Kumar & Ravish Kumar, Comparative Study of Normal Clay Bricks, Fly Bricks and Papercrete Bricks, 2nd National Conference on Recent Advances in Civil Engineering RACE-II, (50), 2nd National Conference on Recent Advances in Civil Engineering RACE-II, NIT Patna, June 2019.

6. Alok Kumar Maurya, Anjali Sharma, Ravish Kumar & Ajay Kumar; Retrofitting for Daylighting of Existing Educational Buildings: An Approach towards Sustainable Architecture. 2nd National Conference on Recent Advances in Civil Engineering RACE-II, (256-260), NIT Patna, June 2019.
7. Ajay, Kumar, Amit, Kumar, Bala, Policies in India in the Respect to Climate Change: Case Study of Bengaluru City, Karnataka, India, 7th International Conference on Architecture and Civil Engineering (ACE 2019), Singapore, (331-339), 7th International Conference on Architecture and Civil Engineering (ACE 2019) Scopus index, GSTF Singapore, May 2019.
8. Kumar, A., Das, B. K., Rajak, F., "Architectural Education and Design Studio Teaching in India". International Journal of Arts and Sciences (IJAS) Conference of Academic Disciplines, American University of Rome, Rome, 22-25 October 2013.
9. Das, B. K., Rajak, F., Kumar, A. "Gender Based Symbolism in Architecture". International Conference on Civil and Architectural Applications. (ICCAA'2012) Dec 18-19, 2012, Phuket, Thailand.
10. Kumar, A., Das, B. K. Aesthetics in the City: A case of City Patna. National Conference on Academic Research Dr MGR University. Chennai. 13-14 August 2010. (ISBN 978-81-910827-0-8)
11. Kumar, A., Das, B. K., Rajak, F. Vernacular Architecture and Sustainability: The case of India. International Conference on Vernacular Settlements. Colombo, Sri Lanka. 30-31 July 2010.
12. Das, B. K., Kumar, A., Green Buildings: An approach towards Sustainable Habitat. National Conference on Sustainable Development of Urban Infrastructure, VNIT Nagpur, June 2010. (ISBN 978-81-7192-064-8).
13. Das, B. K., Rajak, F., Kumar, A., Towards Sustainable Architectural Practices: Nurturing from the early stages of Architectural Education. International Conference on Environmental Sustainability with Green Building Technology 2010, Meenakshi Sundarajan College of Engineering, Chennai. 15-17 March 2010.
14. Das, B. K., Rajak, F., Kumar, A., Culture and Architecture Education in India. International Journal of Arts and Sciences Conference of Academic Disciplines, University of Nevada, Las Vegas, USA 15-18 March 2010. (Funded by the Department of Science and Technology, Govt. of India, under Young Scientist Conference Grant Program).
15. Kumar, A., Kumar, R., Das, B. K., Challenges in Education in India: Need for Sustainable Development. International Journal of Arts and Sciences Conference of Academic Disciplines, University of Nevada, Las Vegas, USA 15-18 March 2010.
16. Kumar, R., Das, B. K., Kumar, A. et al. Potable Water and Health in Rural India. UGC Sponsored National Seminar on Sustainable Development of Water Resources in Indo- Gangetic Plain: Challenges and Constraints. Patna University. 12-13 March 2010.
17. Kumar, A., Das, B. K., Singh, R., Mitigating Climate Change through Sustainable Practices: National Rural Employment Guarantee Scheme-A flagship program of Government of India. National Seminar on Climate Change and Sustainable Development- Regional and Grassroots Initiatives, NITTTR Chandigarh. India. 4-5 March 2010.
18. Kumar, A., Kumar, R., Das, B. K., Climate Change and Sustainable Development: Issues and Challenges in India. National Seminar On "Population, Development & Environment: Issues and Challenges" Banaras Hindu University (BHU), Varanasi, India. 18-20 Feb 2010.
19. Kumar, R., Kumar, A., Das, B. K. Renewable Energy to Mitigate Global Warming for Developing Country like India. ENRON-2010 International Symposium on Energy and Environment. NMIET Bhubaneswar, India. 15-16 Jan 2010.
20. Kumar A., Vernacular Indian Housing: Approach towards Sustainability, International Conference, International Network for Tropical Architecture ("INTA-SEGA 2009"). Kasetsart University and Faculty of Architecture, Bangkok, Thailand, 2-4 Dec 2009.
21. Das, B. K., Kumar, A., Ranjan, V., Climate change: Need for sustainable Agriculture Practices for effective Rural Development. National Conference on Advances in Environmental Engineering (AEE-09) NIT Rourkela, India. 14-15 Nov 2009. (ISBN: 93-80043-45-7)

## 10. Conferences attended Internationally:

1. Ajay Kumar, Sustainable and green building materials for green building construction, 6th -9th March 2023, International Conference on Advances in Structural and Geotechnical Engineering (ICASGE'23) held at **Hurghada, Egypt**.
2. Ajay, Kumar, Amit, Kumar, Bala, Policies in India in the Respect to Climate Change: Case Study of Bengaluru City, Karnataka, India, 7th International Conference on Architecture and Civil Engineering (ACE 2019), Singapore, (331-339), 7th International Conference on Architecture and Civil Engineering (ACE 2019) Scopus index, GSTF **Singapore**, May 2019.
3. Kumar, A., Das, B. K., Rajak, F., "Architectural Education and Design Studio Teaching in India". International Journal of Arts and Sciences (IJAS) Conference of Academic Disciplines, American University of Rome, **Rome**, 22-25 October 2013.
4. Kumar, A., Kumar, R., Das, B. K., Challenges in Education in India: Need for Sustainable Development. International Journal of Arts and Sciences Conference of Academic Disciplines, University of Nevada, **Las Vegas, USA** 15-18 March 2010.
5. Kumar A., Vernacular Indian Housing: Approach towards Sustainability, International Conference, International Network for Tropical Architecture ("INTA-SEGA 2009"). Kasetsart University and Faculty of Architecture, **Bangkok, Thailand**, 2-4 Dec 2009.

## 11. Conference/Workshop/Seminar/Short Courses etc. Organized:

Sr. No.	Institute / Organization	Role	Topics (Workshop/ FDP/ STC/conference)	Period		
				From	To	Days
1.	ITPI, Bihar Regional Centre & NOU Patna	Coordinator	Disaster Preparedness and Mitigation in Human Settlements (Role -)	16 <sup>th</sup> May 2010	16 <sup>th</sup> May 2010	01
2.	NIT Patna	Coordinator	Smart Cities: Opportunities and Challenges (FDP, Role -)	10 <sup>th</sup> September 2019	14 <sup>th</sup> September 2019	One week
3.	NIT Patna	Coordinator	Research Methods in Architecture (, Role -)	11 <sup>th</sup> April 2022	15 <sup>th</sup> April 2022	One week
4.	ITPI, Bihar Regional Centre and Department of Architecture, NIT Patna	Chairman	ITPI East Zone Conference on "Challenges of Plan Preparation and Implementation"	11 <sup>th</sup> November 2022	12 <sup>th</sup> November 2022	02

## 12. List of MURP Dissertation guided:

Sl. No.	Name of Student	Roll No.	Dissertation Topic	Session
1.	Sanjeev Kumar Mahto	1230002	Planning for the Development of Land-Use patterns along the Transportation Corridor between Old Raipur and New Raipur	2013-14
2.	Sharan Pratap Singh	1230003	Modeling Urban Dynamics Using Geographical Information Systems, Remote Sensing, and Urban Growth Models of City Patna	2013-14

3.	Jayendra Kumar	1430001	Community Development Plan for "THARU TRIBES" of Community Development Block "Gaunaha", West Champaran, Bihar	2015-16
4.	Mirza Jamshed Ahmed Baig	1630003	District Development Plan of Siwan	2017-18
5.	Anand	1630007	Development Plan Along Kundli Manesar Palwal Expressway	2017-18
6.	Amit Kumar Bala	1730001	Planning for Transit-Oriented Development Around East-West Metro Corridor: Salt Lake City Kolkata	2018-19
7.	Mayank Kumar Poddar	1730010	Development of Mithala Through Tourism	2018-19
8.	Kartik Srivastava	1830003	Planning for Transit-Oriented development around the major metro station: a case study of Varanasi	2019-20
9.	Tanvi Lalit	1830007	Redevelopment of old Patna City	2019-20
10.	Neeraj Patel	1930004	Land-use planning of Sonpur Nagar Panchayat, (Saran) Bihar	2020-21
11.	Anmol Sanskriti Singh Chauhan	2030008	Smart Solid Waste Management Planning Singrauli	2021-22
12.	Rajendra Hude	2130006	Local area planning using Town Planning Schemes in Indore	2022-23
13.	Swati Priya	2130016	Planning for Sustainable Tourism of Bodhgaya	2022-23
14.	Sharayu Anand Jadhav	(230008	Planning for Sustainable Transit-Oriented Development around metro line – A1: Versova to Ghatkopar, Mumbai	2023-24

### 13. List of PhD Candidates Guided/Pursuing:

Sl. No.	Name of Student	Thesis Topic	Start Year	Completion Year
1.	Supriya Kumari	Critical Evaluation of Residential Satisfaction in Low-Income Group Public Housing of India: A Case of Lucknow City	2019	2022
2.	Kartik Srivastava	Critical Analysis of Side Friction Impact on Urban Road Network: A Case Study of Varanasi	2020	2023
3.	Amit Kumar Bala	Developing Contextual TOD Typology for Indian Cities	2021	Pursuing
4.	Chinmay Shekhar Sudame	Rejuvenation framework for heritage precinct in Wai: A temple town in Maharashtra	2021	Pursuing
5.	Anushree Bhagat	Development and evaluation of sustainable urban streets of Bengaluru	2021	Pursuing
6.	Neeraj Patel	Development of a framework to measure the quality of urban life	2022	Pursuing

#### **14. Administrative Duties Performed at Department & Institute Level:**

1. Examination Coordinator
2. UG Coordinator
3. Professor In charge (Routine).
4. Professor In charge (Climatology Lab).
5. Coordinator of MURP (Master of Urban and Regional Planning).
6. Member, Boards of Studies (UG & PG).
7. Member, Estimate checking Committee (New Buildings in Existing Campus).
8. Member of the committee for locating a proper place for construction of the Faculty Quarter, Non-teaching Staff Quarters, Guest House, and Cafeteria at NIT Patna Campus.
9. Member, a committee constituted to review the performance of the security guards engaged by the Institution on contract.

#### **15. Significant outreach activities outside the Institute:**

1. Inspection of institutions as EVC/SAC/members for AICTE approval.
2. Inspection of institutions for imparting B.Arch/M.Arch degree course by the Council of Architecture.
3. Jury for various architectural projects of BCD, BSBCCCL, Govt. of Bihar
4. Expert member of the State Public Commission for various work
5. Examiner for various interviews/viva voce examination
6. Expert lecture at various events
7. Question paper setter of various competitive /university examinations all over India
8. Various technical talks on Architecture and Urban Planning in **All India Radio, Patna**
9. Member, Building committee, Patna Science College, Patna University

#### **16. Testing/Consultancy Project as PI/Co-PI:**

1. Vetting of DPR "Beautification of Gandhi Maidan as Public Placemaking with the illumination of surrounding Buildings, Patna Smart City Limited, (Role: - PI).
2. Facelifting and addition of different blocks for the existing Patna Sahib Railway Station, East Central Railway, Danapur Division (Role: - PI).
3. Consultancy service for restoration of Swami Ji's residence, Shamadhi, school building, boundary wall including gate, landscaping of the site & design of museum, library, guesthouse, office & multipurpose hall". Shri Sitaram Ashram Trust, Raghopur, Bihta, (Role: Co-PI).

#### **17. Externally Sponsored R&D Project[s] as PI/Co-PI:**

1. Identifying Specific Solutions and appropriate designs considering local conditions and requirements under the HfA Scheme of GoI for the States of Bihar and Jharkhand in Eastern India. Ministry of Housing and Urban Poverty Alleviation, (Role: Co-PI).
2. Research to establish the Significance of the heritage precinct associated with Swami Sahjanand Saraswati at Bihta, Shri Sitaram Ashram Trust, Raghopur, Bihta (Role: Co-PI).

#### **18. Member of Professional Bodies:**

Sl. No.	Name of Association / Society	Category	Membership No.
1.	Council of Architecture	Registered with	CA/2002/29256
2.	Indian Institute of Architects	Fellow Member (LM)	F-14463
3.	Institute of Town Planners, India	Associate Member (LM)	2010-057/AITP


4.	Indian National Trust for Art and Cultural Heritage (INTACH)	Associate Member	A/14445
5.	The Indian Society for Technical Education	Life Member	LM 96281
6.	Indian Water Works Association	Life Member	10224

#### 19. Publication of Books / Chapters:

Sl. No.	Title	Publisher	Edition	Month & Year of Publication
1.	Climate Change and Sustainable Development: Issue and Challenges in India as a chapter in the Book titled "Population, Development, and Environment: A Contemporary Debate"	Concept Publishing Company Pvt. Ltd. New Delhi-110 059	First	2013 (ISBN 81-8069-916-1)
2.	GATE-24 Architecture and Planning,	Hriday Publication	Second	2022; ISBN: 978-93-5416-462-0
3.	Cognitive Data Models for Sustainable Environment, Indian rural housing: an approach towards sustainability	Academic Press, An Imprint of Elsevier	First	2022; ISBN: 978-0-12-824038-0

I declare that the information furnished above is true to the best of my knowledge and belief.

Place: Patna  
Date: 18/05/2024

  
(Ajay Kumar)