

Curriculum Vitae

I. Biographical Data

A. Name of candidate: INDRAJIT PAL

B. Education: Ph.D, M.Sc, M.A

- **Ph. D** - on “**Seismotectonic and Earthquake Hazard Assessment in parts of East and North-East India**”, Vidyasagar University, INDIA. (2009)
- **M. A. in Sociology** – H.N.B. Garhwal University, Uttarakhand, INDIA. (2011)
- **M.Sc - Applied Geology**, Jadavpur University, INDIA. (2001)
- **B.Sc - Geology**, with Distinction in Mathematics and Physics, Jadavpur University, INDIA. (1998)

C. Positions held:

- **Assistant Professor** – Disaster Preparedness, Mitigation and Management, Asian Institute of Technology, Thailand. (01.12.2014 to till date)
- **Associate Professor** – Centre for Disaster Management, Lal Bahadur Shastri National Academy of Administration, Mussoorie, INDIA. (30.10.2006 to 20.11.2014)
- **Junior Project Officer** – Indian Institute of Technology, Kharagpur, INDIA. (23.08.2006 to 27.10.2006)
- **Senior Project Assistant** – Indian Institute of Technology, Kharagpur, INDIA. (01.02.2005 to 22.08.2006)
- **Junior Research Fellow** – Indian Institute of Technology, Kharagpur, INDIA. (17.12.2002 to 31.01.2005)
- **Project Associate (Consultancy Project)** - Indian Institute of Technology, Kharagpur, INDIA. (14.07.2002 to 16.12.2002)
- **Project Assistant** - School of Oceanographic Studies, Jadavpur University, Kolkata, INDIA. (09.09.2001 to 10.07.2002)

D. Special honors and awards:

- Qualified Amateur Station Operation License Examination by Ministry of Communications & Information Technology, Govt. of India, Grade – I (Call Sign: VU2TLR).
- Core group member of the “National Disaster Resonse Management Guideline” by National Disaster Management Authority (NDMA), Government of India.
- Life Member of “**Indian Society of Remote Sensing**”

Past Capacity development and Research work Experiences:

- Designing, developing and imparting training on Disaster Risk Management for Indian Administrative Services (IAS) and Other Central Services officers.
- Imparting Disaster Management modules to Bangladesh Civil Services Officers under Mid-Career Training Program.
- Developing and imparting training modules on Incident Command System (ICS) to the Indian Administrators and Scientists.
- National Level (INDIA) Trainer for Incident Command System (ICS).
- Evaluation of the National level Capacity Building projects on disaster prevention, preparedness, mitigation, response and recovery.
- Evaluation of District and City Disaster Management Plan.

- Case studies and Documentation of Disaster Response and Governance in India.
- Research activities on disaster governance, mitigation and preparedness.
- Land Use and Land Cover change analysis and sustainable development.
- Nodal Officer to Conduct Department of Science and Technology, Govt. of India supported training programme for Scientists and Technologists of India.
- Participatory Learning and Action (PLA) for scientific intervention in Himalayan Rural areas.
- HAM Radio and GPS training to the Group –‘A’ Civil Services officers.
- Earthquake Hazard Zonation map by GIS integration with Analytic Hierarchy Process (AHP).

II. Pedagogy

A. Experience as a teacher

Courses taught, including courses taught at partner institutions. Student enrollment in each course taught and average grade in each course.

- 1. Regular Faculty for Disaster Management in Centre for Disaster Management, Lal Bahadur Shastri National Academy of Administration (Govt. of India) from 2006 – 2014.**
 - Courses Introduction to disaster Management
 - Incident Command System (ICS)
 - GIS and GPS Applications in Disaster Management
 - Simulation Exercise for Risk Management
 - Disaster Governance in the States and Districts
- 2. IN 84.01: Managing Disasters – 2015 (Jan, Semester) – Student Enrolled – 8 (Average Grade -3.44)**
- 3. IN 84.36: Community Based Disaster Risk Management – 2015 (Jan, Semester)**
– Student Enrolled – 5 (Average Grade – 3.5)
- 4. IN 84.01: Managing Disasters – 2015 (Aug, Semester) – Student Enrolled – 13 (Average Grade -3.23)**
- 5. IN 84.36: Community Based Disaster Risk Management – 2016 (Jan, Semester)**
- 6. IN 84.9005: Disaster Risk Governance, Policy and Planning - 2016(Jan, Semester)**
- 7. “City Resilience on Disaster Risk Reduction and Climate Change Adaptation” – CIFAL, Jeju, Republic of Korea**
- 8. “Risk Management Theory” at Kyoto University, Japan**
 - a. “Disaster Risk Governance— Policy and Institutional Framework”**
 - b. “Risk Reduction, Development and City Resilience in Asia-Pacific”**

B. Evaluation of teaching

1. Copy of student teaching evaluation reports: **Annexure -1**
 2. Copy of student research supervision evaluation reports.*
 3. Copies of peer teaching evaluation reports.
- (*Note: For 1 & 2, data covering the previous 4 years should be provided in cases of application for promotion.)*

C. Pedagogical Development

- 1. Publications: textbooks, laboratory manuals, articles in journals oriented toward pedagogy.**
- 2. Grants related to pedagogy and curriculum development.**

3. Initiation of new courses, degree programs, curricula (Jan 2015 – Jan 2016)

- a. **IN 84.36: Community Based Disaster Risk Reduction and Management – Theory and Practice 3 (2 – 3)**
[New Course for DPMM under 'Required' category]
- b. **IN 84.9005: Disaster Risk Governance, Policy and Planning 3 (3-0)**
[New Course for DPMM, January 2016, Semester]
- c. **Climate Change Adaptation and Disaster Risk 3 (3-0)** [New Course for CCSD]

4. Development and introduction of innovative pedagogical techniques.

Teaching practices, and innovative pedagogical techniques to impart effective teaching to the diversified classroom and multicultural students is one of the most challenging aspects around the globe. In contrast to student background variables such as socio-economic status and cultural capital, are factors affecting student learning that are more readily modifiable.

In my teaching practice at AIT, I am facilitating the major facets of a positive classroom climate which supports teacher-student interactions, good student-student relationships, achievement orientation and an orderly learning atmosphere with clear disciplinary rules.

I am also following adequate pacing and classroom management, structure, clarity of presentation, and informative and encouraging feedback to improve the process concurrently for better understanding. These components help create an orderly environment and maximize effective learning time. Apart from using lecture presentation, I am also using short video clips and recent challenging examples of natural disasters and subsequent management from multiple countries to make the students comfortable to learn through their own experiences. The cases study analysis in the context of theoretical perspective of the course is also one of the major thrust for my teaching methods. The tailor-made approach for each class and courses is very much essential to make a long lasting impression to the students about the subject. I am giving emphasis to improve the student's soft skills, critical thinking and problem solving. I am also creating the space and environment for the students to interact better with the faculty and classmates and remain engaged.

5. Participation in workshops, short courses, etc. relating to improvement of teaching.

1. Project Launch meeting / seminar at Universiti Sains Malaysia (USM) for the project '**Disaster Resilience Education Capacity Building in South-East Asia**' under Australia-ASEAN Council (AAC) Grant, Penang, Malaysia, 18 March, 2016
2. Resource Person for "**USAID Adapt Asia-Pacific Training of Trainers Program: Urban Climate Change Adaptation and Resilience (UCCAR ToT)**", Asian Institute of Technology, Thailand, 11 March 2016.
3. Session Chair for "SFDRR Priority 2: Strengthening Disaster Risk Governance to Manage Disaster Risk" and paper presentation at the "**12th Association of Pacific Rim Universities (APRU) Multi-Hazard Symposium 2016, Role of Science and Technology in Sendai Framework in Disaster Risk Reduction**", at Kyoto University, Japan from 7-8 March, 2016.
4. Faculty Development Symposium "**Consortium for International Human Resource Development for Disaster-Resilient Countries (DRC)**", 10 January, 2016, Bangkok, Thailand.
5. "**Practitioners Workshop on Risk Reduction and Resilience**", 23-25 November 2015, Asian Disaster Preparedness Centre, Bangkok, Thailand.
6. International Expert Workshop "**Towards Urban Water Security in Southeast Asia: Managing Risk of Extreme Events**", 19-20 November, 2015, Phnom Penh, Cambodia.
7. Expert Workshop on "**Addressing Non-Economic Losses and Damages Associated with Climate Change: Learning from the Recent Past Extreme Climatic Events for Future Planning**", 7 October, 2015, Asian Institute of Technology, Thailand.
8. "**Regional Earthquake Recovery Dialogue for Building Back Better**", 1-2 October 2015, Kathmandu, Nepal, Nepal Planning Commission, UNESCAP, SAARC Disaster Management Centre.

9. **“Developing Capacities on Climate Change Adaptation (CCA) and Disaster Risk Reduction (DRR) in the Asia-Pacific Region”** 14 – 17 Sept, 2015, CIFAL, Jeju, Republic of South Korea, Sept, 2015.
10. **“Critical Infrastructure Protection & Resilience Asia”** 24-25 June, 2015, Bangkok (Plenary Session Speaker for topic: Integrated approach to Critical Infrastructure for Disaster Risk Reduction through Emergency Preparedness and Response Coordination in Asia).
11. **“Developing Capacities on Climate Change Adaptation (CCA) and Disaster Risk Reduction (DRR) in the Asia-Pacific Region”** 18-22 May, 2015, CIFAL Jeju, UNISDR and UCLG, ASPAC, Jeju, Republic of South Korea, May, 2015.
12. **“Regional Forum on Enhancing Disaster and Climate Resilient Livelihoods in Asia”** 26-27 February, 2015, Asian Disaster Preparedness Centre (ADPC), Bangkok.
13. **“START Network, Transforming Surge Capacity Project - Inception Workshop”**, 23 - 26 February 2015, Bangkok, Plan International.
14. **“National Consultation on Climate Change Adaptation”** 15 - 17 October 2014, UNDP, New Delhi, INDIA; Centre for Good Governance, New Delhi, INDIA and Centre for Disaster Management, Lal Bahadur Shastri National Academy of Administration, Mussoorie, INDIA.
15. **“Damage & Reconstruction Needs Assessment”**, 15 July – 9 August 2014, National Institute of Disaster Management (NIDM), Ministry of Home Affairs, Government of India and Global Facility for Disaster Reduction and Recovery (GFDRR), The World Bank, Washington (online).
16. National workshop on **“Uttarakhand Recovery Action – Sharing of Experience”**, 27 August 2014, New Delhi, by the National Centre for Good Governance [NCGG], Government of India, in partnership with the United Nations Disaster Management Team [UNDMT].
17. **“Risk Sensitive Land Use Planning”**, 16 June - 11 July 2014, National Institute of Disaster Management (NIDM), Ministry of Home Affairs, Government of India and Global Facility for Disaster Reduction and Recovery (GFDRR), The World Bank, Washington (online).
18. **“Risk Identification, Assessment and Analysis”**, 15 May - 9 June 2014, National Institute of Disaster Management (NIDM), Ministry of Home Affairs, Government of India and Global Facility for Disaster Reduction and Recovery (GFDRR), The World Bank, Washington (online).
19. **“Comprehensive Natural Disaster Management Framework”**, 1 April - 10 May 2014, National Institute of Disaster Management (NIDM), Ministry of Home Affairs, Government of India and Global Facility for Disaster Reduction and Recovery (GFDRR), The World Bank, Washington (online).
20. **“Introductory e-Learning Course on Climate Change”**, May 3, 2014, United Nations Institute for Training and Research and UN Climate Change: Learn (online).
21. **“Asia Pacific Regional Workshop on Sustainable Livelihood and Economic Recovery”** Pondicherry, India, 11 – 16 November, 2013, UNDP India, Asia-Pacific Centre, Crisis Prevention and Recovery Unit, Bangkok, Bureau for Crisis Prevention and Recovery, UNDP.
22. **“Consultations meet on Lessons from the 2013 Uttarakhand Disaster”**, August -September, 2013, Rural Litigation and Entitlement Kendra, Dehradun.
23. National Workshop on **“Uttarakhand Disaster 2013– Lessons Learnt”**, August 2013, National Institute of Disaster Management, New Delhi.
24. First Session of **“National Platform for Disaster Risk Reduction”**, May 2013
25. **“Academy of ICT Essentials for Government Leaders”**, First National Training of Trainers on UN-APCICT Course, UN Asian and Pacific Training Centre for Information and Communication Technology for Development (UN-APCICT /ESCAP) In partnership with Department of Information Technology, GOI and Lal Bahadur Shastri National Academy of Administration, Mussoorie, INDIA, 4th - 16th February, 2011
26. **“Workshop on Gender Budgeting”**, National Gender Centre, Lal Bahadur Shastri National Academy of Administration, Mussoorie, INDIA, 8th – 9th February, 2010.

27. **“Introduction to GIS and its applications”**, National Remote Sensing Centre, ISRO, Dept. of Space, Govt. of India, Hyderabad, INDIA, 26th October – 20th November, 2009.
28. **“Design of Training (DoT)”**, under Trainer Development Programmes by Department of training and Personnel (DoPT), Govt. of India from 11th – 15th May, 2009 (includes 4-week project work).
29. **“Direct Trainer Skills (DTS)”**, under Trainer Development Programmes by Department of training and Personnel (DoPT), Govt. of India from 4th – 8th May, 2009.
30. **“ICS Operation Section Chief and Incident Commander Course”**, Lal Bahadur Shastri National Academy of Administration, Mussoorie, INDIA, 14th - 18th June, 2008.
31. **“Science for Rural Societies Program”**, Lal Bahadur Shastri National Academy of Administration, Mussoorie, INDIA, 18th -29th February, 2008.
32. **“Scientists & Administrators’ Interface Training Program”**, Lal Bahadur Shastri National Academy of Administration, Mussoorie, INDIA, 25th -29th June, 2007.
33. **“ Simulation Exercise course”**, Lal Bahadur Shastri National Academy of Administration, Mussoorie, INDIA, 14th – 18th May, 2007.
34. **“ToT on Disaster Management”**, Administrative Training Institute, Govt. of West Bengal, Kolkata, INDIA, 15th – 19th January, 2007.
35. **“Incident Command System Logistic Section Chief”** course, Disaster Management Institute, Bhopal, INDIA, 22nd – 24th February, 2007.
36. **“Incident Command System Finance Administration Section Chief”** course, Disaster Management Institute, Bhopal, INDIA, 20th – 21st February, 2007.
37. **“Incident Command System Software (I-Suit)”** course, National Institute of Disaster Management, New Delhi, INDIA, 7th - 8th December, 2006.
38. **“Incident Command System “Basic/ Intermediate”** course, Lal Bahadur Shastri National Academy of Administration, Mussoorie, INDIA, 18th – 22nd December, 2006.
39. **“National Short Term Course on Engineering Seismology”**, Department of Geology & Geophysics, Indian Institute of Technology Kharagpur, INDIA 4th – 8th August, 2003.
40. **“Certificate Course on GIS”** from STESALIT INFOTECH Ltd (Six months).
41. **“Workshop on Remote Sensing Application for Environmental Protection”** organized by India Society of Remote Sensing, Kolkata Chapter.
42. **“National Seminar on Vulnerability of Sundarban Mangrove Ecosystem in the perspective of Global Climate Change”**, Ministry of Environment and Forests, Government of India.

III. Student Research Supervision

A. Theses supervised. Number of master and doctoral students graduated each year, on which the faculty served as committee chair or co-chair.

3.A.1 Summary of student research supervision at AIT (December. 2014 – December 2015)

STUDENTS	COMPLETED		IN-PROGRESS	
	Chair of the Committee	Co-Chair of the Committee	Chair of the Committee	Co-Chair of the Committee
Doctoral	0	0	0	1
Master’s	0	0	1	0

B. Doctoral students. For each student who obtained the doctoral degree under your supervision, provide the following:

- a. Title of dissertation
- b. Resulting publications
- c. Years to graduation

IV. Research

A. Publications

1. Books and Monographs

- a) "Disaster Risk Governance in India and Cross Cutting Issues", Springer JAPAN by Dr. Indrajit Pal and Prof. Rajib Shaw (In progress - Contract Signed with Springer, Japan).
- b) "Disaster – Response and Management" Volume 2, Issue I (2014), Editorial member, published by Centre for Disaster Management, LBSNAA, Mussoorie (ISSN: 2347-2553).
- c) "Introduction to Disaster Management", Authored by: Dr. Indrajit Pal and Dr. Tuhin Ghosh, Cambridge University Press India Pvt. Ltd. (*Under review*)
- d) "Disaster Governance in India – Series 2" edited by Saurabh Jain, IAS and Dr. Indrajit Pal, published by Centre for Disaster Management, LBSNAA, Mussoorie (ISBN: 978-81-928670-1-4).
- e) "Disaster – Response and Management" Journal, Volume 2, Issue I (2014) (ISSN: 2347-2553) Editorial member, published by Centre for Disaster Management, LBSNAA, Mussoorie.
- f) "Disaster Governance in India – Series 1" (2014) edited by Saurabh Jain, IAS and Dr. Indrajit Pal, published by Centre for Disaster Management, LBSNAA, Mussoorie (ISBN: 978-81-928670-0-7).
- g) "Disaster – Response and Management" Journal, Volume 1, Issue I, (2013) (ISSN: 2347-2553) Editorial member, published by Centre for Disaster Management, LBSNAA, Mussoorie.

2. Book Chapters

- a) Book Chapter "Land use and land cover change analysis in Uttarakhand Himalaya and its impact on environmental risks" in the Book "Mountain Hazards and Disaster Risk Reduction" edited by Rajib Shaw and Hari Krishna Nibanupudi, by Springer Japan, pp 125-137, 2015 (ISBN: 978-4-431-55241-3).
- b) Book Chapter "Cloudburst and Flash Flood at Uttarkashi (India): An Assessment Using Geoinformatics", Indrajit Pal, Tuhin Ghosh, Anirban Mukhopadhyay, Subhajit Ghosh, in the book "Multiple Geographical Perspectives on Hazards and Disasters, Disaster Risk Management: Spatial Planning, Assessment and Social Construction", edited by Lina Maria Calandra, Giuseppe Forino, Andrea Porru, VALMAR – Rome, pp 61 – 72, 2014 (ISBN: 978-88-979870-9-3).

3. Refereed journal articles: international, regional, national. For each article, indicate the publisher of the journal and the number of SCOPUS citations.

3.A Summary of journal articles published (e.g. Dec. 2014 – Jan. 2016)

Refereed Journals	International	Refereed Regional Journals	Refereed National Journals
(8)		(1)	(7)

In Progress			
Refereed Journals	International	Refereed Regional Journals	Refereed National Journals
(2)		(1)	(3)

3.B Articles in Refereed International Journals

1. Pal, I., (2015), "Analysis of Institutional Framework and Administrative System for effective Disaster Risk Governance - a perspective of 2013 Cyclone Phailin in INDIA", International Journal of Disaster Risk Science, Springer (under review).
2. Ghosh, C and Pal, I., (2015), "Enviro-geotechnical concern for Dam Safety posed by Uttarakhand Flash Flood-2013", Geotechnical Engineering Journal of the SEAGS (Southeast Asian Geotechnical Society) & AGSSEA (Association of Geotechnical Societies in South East Asia, (ISSN: 0046-5828), (under review).
3. Ghosh, T., and I. Pal (2014), "Dust Storm and its Environmental Implications", Journal of Engineering Computers & Applied Sciences (JECAS), Volume 3, No.4, April 2014, (ISSN: 2319-5606). [Impact Factor 0.765]
4. Pal, I., S. Jain, and A. Walia (2014), "Disaster Risk Reduction and ICT Applications – a Conceptual Framework for Tourism Management in Uttarakhand, INDIA", International Journal of Modern Communication Technologies & Research, Vol. 2, Issue 4, April 2014 (ISSN: 2321-0850). [Impact Factor 2.47]
5. Pal, I., and T. Ghosh (2013), "Fire Incident at AMRI Hospital, Kolkata (India): A real time assessment for Urban Fire", Journal of Business Management & Social Sciences Research, Volume 3, No.1, pp. 9 -13, January 2014 (ISSN: 2319-5614). [Impact Factor 0.675]
6. Pal, I., S. Singh and A. Walia, (2013), "Flood Management in Assam, INDIA: A review of Brahmaputra Floods, 2012", International Journal of Scientific and Research Publications, Vol. 3 Issue 10, October 2013 (ISSN: 2250-3153). [Impact Factor 2.07]
7. Pal, I., S. K. Nath, K. Shukla, D. K. Pal, A. Raj, K. K. Thingbaijam, and B. K. Bansal, (2008), "Seismic Hazard Zonation of Sikkim Himalaya on GIS Platform", Natural Hazards, Vol. 45, pp. 333-377. [Impact Factor 1.719]
8. Mohanty, W. K., Walling, M. Y., Nath, S. K., and Pal, I., (2007), "First Order Seismic Microzonation of Delhi, India using Geographic Information System (GIS)", Natural Hazards (DOI: 10.1007/s11069-006-0011-0). [Impact Factor 1.719]
9. Nath, S. K., Vyas, M., Pal, I., and Sengupta, P., (2005), "A Hazard Scenario in the Sikkim Himalaya from Seismotectonics, Spectral Amplification, Source Parameterization and Spectral Attenuation Laws using Strong Motion Seismometry", Journal of Geophysical Research vol. 110, B01301, doi: 10.1029/2004JB003199. [Impact Factor 1.719]
10. Vyas, M., Nath, S. K., Pal, I., Sengupta, P., and Mohanty, W. K., (2005), "GSHAP Revisited for the Prediction of Maximum Credible Earthquake in the Sikkim Region", Acta Geophysica Polonica, 53, 2. [Impact Factor 0.91]

3.C Articles in Refereed Regional Journals

1. Behera, H. C and Pal, I., (2015), "Agrarian Transformation in India: A Review.", Social Change, Council for Social Development, SAGE Journal, (ISSN: 0049-0857) (under review).
2. Pal, I., (2015), "Education for Disaster Risk Reduction at Asian Institute of Technology (AIT), Thailand", southasiadisasters.net, Vol. 120.

3.D Articles in Refereed National Journals

1. Dhanapal, G and Pal, I., (2016), "Building climate resilience in Indian cities", Economic and Political Weekly. (Under Review).

2. Kaur, A., Ghawana, T., Garg, C.R., Satya, C. S., Tarun, N., Nayak, B. C., Pal, I., and Dharampal, (2015), "Hazard-Risk Assessment and Mitigation Measures for West Delhi District, Delhi, India", *Disaster – Response and Management*, Vol. 2, No. 2, (ISSN: 2347-2553) (under review).
3. Walia, A., and I. Pal, (2014), "Flood Management in Assam: A case of Bongaigaon Floods 2012", *Disaster – Response and Management*, Vol. 2, No. 1, April 2014 (ISSN: 2347-2553).
4. Walia, A., and I. Pal, (2013), "Role of Social Media in management of Uttarakhand 2013 Flash Flood Disaster", *Disaster and Development*, National Institute of Disaster Management, India (in press).
5. Walia, A., and I. Pal, (2013), "Village Level Disaster Risk Management through Participatory Learning and Action (PLA) at Uttarakhand Himalaya, India", *International Journal of Scientific Engineering and Technology*, Volume No. 1, Issue No. 11, pp. 1162-1167, Nov, 2013 (ISSN: 2277-1581).
6. Pal, I., and A. K. Singh, (2013), "Disaster Management in Namchi (Head Quarter, South District) on 18th Sept, 2011 Sikkim Earthquake", *Disaster – Response and Management*, Vol. 1, No. 1, September 2013 (ISSN: 2347-2553).
7. Walia, A., I. Pal and S. Singh, (2013), " Assam Floods 2012 – A case study of District Barpeta", *Disaster – Response and Management*, Vol. 1, No. 1, September 2013 (ISSN: 2347-2553).
8. Pal, I (2013), "Cloud Burst and Flash Floods at Uttarkashi, Uttarakhand – A Case study of 2012", *Disaster – Response and Management*, Vol. 1, No. 1, September 2013 (ISSN: 2347-2553).
9. Nath, S. K., Bhattacharya, S. N., Vyas, M., Pal, I., Sengupta, P., Mitra, S., Mohanty, W. K. and Ganguli, S. S., (2005) "*The Great Sumatra-Andaman Earthquake of 26 December 2004 as perceived from the broadband seismograms of IIT, Kharagpur Seismological Observatory*", *Current Science* Vol. 88, No. 10. [Impact Factor 0.926]
10. Nath, S. K., Vyas, M., Pal, I., Singh, A. K., Mukherjee, S., Sengupta, P., (2005), "*Spectral Attenuation Models in the Sikkim Himalaya from the Observed and Simulated Strong Motion Events in the Region*", *Current Science* vol. 88, No. 2. [Impact Factor 0.926]

4. Papers in Refereed Conference Proceedings

1. Pal, I., "Risk Management to Critical Infrastructures for Extreme Events: Integrated approach for Urban Water Security in Asia", *International Expert Workshop Towards urban water security in Southeast Asia: Managing risk of extreme events* from 19-20 November, 2015, Phnom Penh, Cambodia, Proceedings, pp 85 – 94, 2015.
2. Pal, I and A. Walia, (2014), "Post Disaster Reconstruction and Geoinformatics for Disaster Risk Reduction (DRR) for 2013 Flash Floods in Uttarakhand, INDIA – a case of Rudrapryag District", *2nd World Disaster Management Congress*, Hyderabad, India, 2015.
3. Pal, I., and A. Walia, (2013), "Application of Geoinformatics for Disaster Risk Reduction (DRR) in Road infrastructure – a study of Post Disaster Reconstruction for 2013 Uttarakhand Flash Flood (INDIA)", "Joint International Workshop of ISPRS WG VIII/1 and WG IV/4 on 'Geospatial Data for Disaster and Risk Reduction' November 21-22, 2013, Hyderabad, India".
4. Pal, I., Ghosh, T., and Mukhopadhyay, A. (2013), "Flash Flood at Uttarkashi (India): Consequences and Management Strategy". *IV EUGEO Congress*, Rome 5-7 September 2013.
5. Arya, R., I. Pal, N. V. Joseph and B. Ashok, (2009), "Incident Command System (ICS) - an organizational approach to Disaster Management in India", *Second India Disaster Management Congress*, 4-6 November, 2009.
6. Nath, S. K., K. K. S. Thingbaijam, A. Raj, K. Shukla, I. Pal, D. R. Nandy, M.K. Yadav, B.K. Bansal, S. Dasgupta, K. Majumdar, J. R. Kayal, A.K. Shukla, S.K. Deb, J. Pathak, P.J. Hazarika, and D.K. Paul (2007), "*Seismic Scenario of Guwahati City*", *EHAM-2007, Guwahati*, India, 7-8 December 2007.

7. Nath, S. K., Sengupta, P., Pal, I. and Mohanty, W. K., (2003), “*Seismotectonic and Hazard model of Sikkim Himalaya*”, International Symposium on Natural Hazards INTROMET – 2003, Hyderabad, India, July 23-26, 2003.
8. Nath, S. K., Pal, I., Sengupta, P. and Roy, D., (2003), “GIS based Seismic Hazard Zonation in the Sikkim Himalaya”, International Union of Geodesy and Geophysics (IUGG), session SS04 and SW04 on January 24, 2003.

5. Papers in Workshops

6. Abstracts

- a) Pal, I., and Bhatia, S., “Disaster Risk Governance and City Resilience in Asia-Pacific region”, Multi-Hazards Symposium 2016, Role of Science and Technology in Sendai Framework in Disaster Risk Reduction, Kyoto University, Japan, March 7-8, 2016 (accepted).

7. Development Project Reports

8. Non-refereed Publications

1. Pal, I., (2015), “Disaster Governance and Education for Effective Disaster Risk Reduction”, Technology, Asian Outlook on Engineering and Technology, February, 2015, Asian Institute of Technology, Thailand (ISSN: 2286-9158).

9. Patents

10. Invited Lectures and Keynote Addresses

1. Invited Speaker for panel “Critical Infrastructure Protection & Resilience Asia” 24-25 June, 2015, Bangkok.
2. Resource person and Field mentor faculty for Training and Study Visit Program on Disaster Risk Reduction and Community Response (Indonesia-Thailand) for Senior Government Officials from Bangladesh, 2-15 July 2015, AIT Extension, Asian Institute of Technology.
3. Session Co-chair for International Expert Workshop “Towards Urban Water Security in Southeast Asia: Managing Risk of Extreme Events”, 19-20 November, 2015, Phnom Penh, Cambodia.
4. UNESCAP supported Panel member on “Regional Earthquake Recovery Dialogue for Building Back Better”, 1-2 October 2015, Kathmandu, Nepal, by Nepal Planning Commission, UNESCAP, SAARC Disaster Management Centre. (Sponsored by UNESCAP, Bangkok)
5. Guest Faculty at “Centre of Excellence in Disaster Mitigation & Management, Indian institute of Technology Roorkee, India”.
6. Guest Faculty for Disaster Management Sessions for “Mid-Career Training Program for Bangladesh Civil Services Officers” (13 Batches), in Centre for Good Governance, New Delhi, India, under bi-lateral arrangement between Govt. of Bangladesh and Govt. of India.
7. Administrative Training Institute, Kolkata, West Bengal (Guest speaker for regular in-service course civil services officers of Govt. of West Bengal)
8. UGC-Academic Staff College, B.P.S. Women University, Sonapat, Haryana, INDIA.
9. National Institute of Rural Development, Hyderabad, INDIA – “International Training Programme on Geoinformatics Applications in Rural Development”
10. National Institute of Technology, Arunachal Pradesh, INDIA – M.Tech Credit Course.
11. Sensitization on Incident Response System – Agatti & Kavaratti Islands, Lakshadweep
12. G. B Pant Institute of Agriculture and Animal Husbandry – Uttarakhand.
13. **Guwahati Emergency Management Exercise 2012” (Expert guest speaker)**
14. ICS Finance / Admin. & Logistics Section chief course - Assam Administrative Staff Collage
15. ICS Basic /Intermediate course – Assam Administrative Staff Collage

16. ICS Basic /Intermediate course – Khammam District Admin, Andhra Pradesh
17. ICS Operation Sections Chief course – Kamrup Metro, Assam
18. ICS Incident Commander Course – Silchar, Cachar District, Assam
19. Simulation Exercise training programme – Silchar, Cachar district, Assam

B. Research in progress

1. Brief descriptions of current projects

- [a] Project Title:** Multi Criteria Analysis for Multi-Hazard Risk Perception in Decision Making for Disaster Risk Reduction in Sichon District, Nakhon Si Thammarat Province, Thailand

Funding Agency: AIT Faculty Development Fund

Project Brief: Sichon District, Nakhon Si Thammarat Province, Thailand is located in the south west of Thailand which surrounded by a high altitude mountains on the west and the plain area on the eastern side. Moreover, the mountain bedrock is the granite that has a high potential of sliding. Furthermore, Sichon district is also prone to flash flood due to heavy rainfall, even for moderate rainfall situations. Since Natural disasters are predominantly localized in nature and disaster risk governance influence significantly in the disaster risk reduction process, present study is based on the following objectives,

- Establish the causal linkages between Risk perception decisions making in the light of risk governance through Analytic Hierarchy Process (AHP).
- Identify the influence of multi stakeholders' Risk perception for decision making.
- Analyze Multi-hazard perspectives in decision making and risk governance.

- [b] Project Title:** 'Disaster Resilience Education Capacity Building in South-East Asia'.

Funding Agency: Australia-ASEAN Council

Lead Institute of the Consortium: University of Newcastle, Australia

DPMM / AIT is now partner with University of Newcastle, Australia as one of the partner institutes under Australia-ASEAN Council (AAC) Grant for the project 'Disaster Resilience Education Capacity Building in South-East Asia'.

The Australia-ASEAN Council (AAC) launched on September 2015, will generate opportunities for Australian business, education, science and innovation and the arts to work with partners in South-East Asia. The Council's mission is to increase knowledge and promote Australia's interests in South-East Asia by initiating and supporting activities designed to enhance awareness, understanding and links between people and institutions in Australia and ten South-East Asian countries: Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Burma, Philippines, Singapore, Thailand and Vietnam.

The University of Newcastle, Australia (Lead University), Universiti Sains Malaysia (USM), the Asian Institute of Technology (AIT, Thailand), the University of the Philippines (UP) and the National University of Civil Engineering (NUCE, Vietnam) will form a robust regional network with the collective capacity to lead initiatives that protect society from shocks to physical, socio-cultural, politico-economic and natural systems.

The 'Disaster Resilience Education Capacity Building in South-East Asia' project will undertake the activities in order to build capacity in the ASEAN region, understanding regional challenges that result from complex problems generated by natural hazards and human induced threats. The project will create regional synergies between leading higher education institutions while building capacity in ASEAN countries to proactively address disaster risk and build resilience through education.

On behalf of DPMM / AIT Dr. Indrajit Pal, Assistant Professor, DPMM, AIT is leader of this project partnership.

2. Brief descriptions of plans for future projects

1. "An Interdisciplinary Approach to Model Multi Stakeholder Risk Perception and Disaster Governance for Sustainable Recovery from 2015 Nepal Earthquakes". (submitted to PEER, USAID with Tribhuvan University, Nepal supported by University of Hawaii, USA)

2. "Policy Framework for Selection of Centralized and Decentralized Wastewater System for Disaster Resilient Sanitation" submitted to International Growth Centre (IGC), UK, with National Institute of Industrial Engineering (NITIE), Mumbai, India. (Proposal submitted)
3. "Short term Training and Study Visit of Bangladesh Govt. Officers" (Proposal submitted)
4. Short term training on "Cost benefit Analysis for Disaster Risk Reduction" for Department of Planning and Investment, Laos. (Negotiation is in progress)
5. "Development & Implementation of Flood Forecasting & Warning System for two river basins in Vietnam" Proposal submitted with Water Engineering and Management through AIT Consulting for ADB (Proposal Submitted).
6. "Training on Disaster-resilient housing in Timor-Leste, Strengthening Disaster Risk Management in Timor-Leste, Phase-II", submitted through AIT Consulting for UNDP ADB (Proposal Submitted).
7. Collaboration on Joint Degree program and collaborative research "An Interdisciplinary Approach to model interconnectedness between Multi Stakeholder Risk Perception, Disaster Risk Governance and Sustainable Infrastructure for extreme climate events in Coastal Cities – case of Thailand, Hawaii and Malaysia. (will submit to National Science Foundation, USA grant along with the partners from Universiti Sains Malaysia, Malaysia and University of Hawaii, USA)
8. Collaboration on Joint Academic activities and research, Asia Climate Change Education Center, Jeju Special Self-Governing Province, Republic of Korea. (in progress)
9. "Joint degree program and professional master's program with Vinayaka Missions University, Tamilnadu, INDIA", (Negotiation is in progress)
10. Developing Proposal for ERASMUS with Jadavpur University, Kolkata, India and University of Southampton, UK (in progress).

C. Research grants and sponsored projects

1. Nodal and Coordinating Officer for the project - "Capacity Building on Disaster Management for Indian Administrative Services Officers (IAS) /Central services" – 2012 -2015, supported by National Disaster Management Authority (NDMA), Govt. of India.
2. Nodal officer and Program Coordinator for "National Program for Training of Scientists and Technologists working in the Government Sector" from 2007- 2014, supported by Department of Science and Technology, Govt. of India.

Research and Consultancy:

1. Consultancy Project on "Emergency Response and Disaster Management Studies and Plan for Sagar Super Thermal Power Project, (2X660MW) at Nayachar Island, West Bengal, INDIA" with Jadavpur University, Kolkata, INDIA.
2. Research study on "Flood Management and Response in Assam, INDIA – Study of four vulnerable districts (Barpeta, Dhubri, Dhemaji and Jorhat districts)"

V. Service/Outreach

A. Professional Service

1. DRC outcome presentation on behalf of AIT for Faculty Development Symposium "Consortium for International Human Resource Development for Disaster- Resilient Countries (DRC)", 10 January, 2016, Bangkok, Thailand.
2. Visiting Scholar to Kyoto University, Japan for collaborative lecture under "Consortium for International Human Resource Development for Disaster- Resilient Countries (DRC)", December, 2015, Kyoto University, Japan (Sponsored by Kyoto University, Japan).

3. Session Co-chair for International Expert Workshop “Towards Urban Water Security in Southeast Asia: Managing Risk of Extreme Events”, 19-20 November, 2015, Phnom Penh, Cambodia (Sponsored by Workshop).
4. UNESCAP supported Panel member on "Regional Earthquake Recovery Dialogue for Building Back Better", 1-2 October 2015, Kathmandu, Nepal, by Nepal Planning Commission, UNESCAP, SAARC Disaster Management Centre. (Sponsored by UNESCAP, Bangkok)
5. UNISDR Resource Person for Developing Capacities on Climate Change Adaptation (CCA) and Disaster Risk Reduction (DRR) in the Asia-Pacific Region” Sept, 2015, Jeju, Republic of South Korea (sponsored by UNISDR, Incheon, Republic of Korea)
6. Observer for “Developing Capacities on Climate Change Adaptation (CCA) and Disaster Risk Reduction (DRR) in the Asia-Pacific Region” May, 2015, CIFAL Jeju, Republic of South Korea. (sponsored by CIFAL Jeju, Republic of Korea)
7. Panel member “UNOCHA 2013 Regional Humanitarian Policy Forum for Asia-Pacific” in May, 2013, Bangkok, Thailand (Sponsored by UNOCHA, Bangkok)
8. Faculty Exchange and representative of Government delegation by Ministry of Home Affairs, New Delhi April – May, 2008 to United States of America (USA) to Emergency Management Institute (EMI), Maryland; Washington State Emergency Operation Centre (EOC), Pennsylvania EOC, University of Colorado, California Governor’s Office Emergency Operation Centre (Sponsored by USAID).
9. Attended meeting at FAO, Bangkok office for Disaster Risk Management related project opportunity.
10. AIT SU invited judge for the poster session on “**AIT Career Fair 2015**”

B. Significant Institute Committee Service (Indicate the period of service)

1. Field-of-Study/Program
2. School
3. Institute

C. Administrative Service (Indicate the period of service)

1. Field-of-Study/Program
2. School
3. Institute

D. Promotion and Marketing (Briefly describe role or involvement)

1. Promotional Meeting to Chulalongkorn University, Bangkok (March, 2015)
2. Promotional material distribution in CIFAL Jeju, Republic of Korea to participants of the workshop from 13 countries (May and September, 2015).
3. Promotional material distribution in Expert meeting in Kathmandu, Nepal (October, 2015).
4. Promotional material distribution in “Practitioners Workshop on Risk Reduction and Resilience”, ADPC, Bangkok (November 2015).
5. Promotional seminar to Thammasat University, Thailand (November, 2015).
6. Promotional material distribution in “International Expert Workshop Towards Urban Water Security in Southeast Asia: Managing Risk of Extreme Events”, Cambodia (November, 2015)

E. Community Service

1. Consulting activities

Training Programme / Workshop / Seminar Conducted from (2006 - 2014) (total 35 Nos.):

- Science & Technology for Rural Societies
- Scientists and Administrators Interface Training programme

- Certified Incident Managers' Programme
- Primer in Administration and Management for Scientists
- Ethics and Values
- Leadership and Management Training Programme for Scientists & Technologists
- Incident Command System Course
- Crisis Management – Simulation Exercise
- Governance in Science and Technology
- Flood Management and Response in the Districts of Assam (Barpeta, Dhubri, Dhemaji, Jorhat)
- "National Consultation on Climate Change Adaptation" with UNDP, INDIA as knowledge partner.

2. Serving on program committees	Ph.D –	3
	M.Sc –	5
	D.Eng –	2
	M.Eng –	1

3. Reviewer of the Journal

- "Current Science", India (ISSN: 0011-3891)
- "Journal on Disaster and Development", (ISSN: 0973-6700)
- "Journal of Forestry Research", Springer. (ISSN: 1007-662X)
- "African Journal of Environmental Science and Technology" (ISSN:1996-0786)
- "International Journal of Innovation, Management and Technology", Singapore (ISSN: 2010-0248)
- "Asian Journal of Geoinformatics" (ISSN: 1513-6728)
- "Integrated Disaster Risk Management Journal (IDRiM)" (ISSN: 2185-8322)

4. Serving as external examiner –

- The Papua New Guinea University of Technology, Papua New Guinea

VI. Ability to Cooperate

Presently I am in active communication for the collaborative activities with the following institutions,

1. UNESCAP, Bangkok,
2. UNISDR and Global Education Training Institute (GETI), Incheon, Republic of Korea
3. UNEP, Geneva
4. Asian Disaster Preparedness Centre (ADPC), Bangkok
5. RIMES, Thailand
6. University of Hawaii
7. University of Newcastle, Australia
8. AIT Extension
9. AIT Consulting / Solution
10. CIFAL, Jeju, Republic of Korea
11. Asia Climate Change Education Center, Jeju, Republic of Korea.
12. Kyoto University, Japan
13. Tribhuvan University, Kathmandu, Nepal
14. National Institute of Industrial Engineering, India
15. Indian Institute of Technology Roorkee, India
16. National Institute of Disaster Management, India.
17. Jadavpur University, India
18. Department of Environmental Technology, National University of University of Laos,

VII. Personal Statement

It's a great honor for me to serve as fulltime faculty member at AIT since 2014. I have been involved to the extent possible to all the institutional activities related to student teaching and guidance, promotion for AIT, institutional collaboration initiatives. I am having 12 years of experience on research and training activities primarily focused on the Hazard and Risk Assessment, Risk Management, Disaster Governance, GIS applications in the field of disaster risk management, Climate Change Adaptation and disaster risk management, Capacity Development etc. Prior to join AIT, I served as faculty member at Centre for Disaster Management at Lal Bahadur Shastri National Academy of Administration, Mussoorie, India (Premier National Institute for training Indian Administrative Services Officers) for more than eight years.

Disaster Risk Management is my passion along with my profession. I am excited to inculcate my skills and knowledge with the developing trends across the globe. The scientific domain knowledge and experience along with the field reality through documentation and case studies for Indian disasters and Asia pacific region enriched me to work for broader multi-dimensional aspects.

My Philosophy of Education is successful teaching and learning which encompass the diversity of the student backgrounds and the ability levels of all students involved. There are times when we encounter students that require a little more effort than others. When we are faced with this type of situation instructor must reflect on the true meaning of teaching. This will enable the instructor to embrace the difference in the learning styles of students and allow the teacher to develop innovative strategies for reaching such a diverse population. Instructor should give all students the chance to let their creative ideas flow. With a little nudge and some encouragement there is no end to what a student can do. Instructor must realize that the impact that we have on our students last a lifetime. I believe teaching is guiding and nurturing the students to establish the skills needed to achieve career goals, prosperity and fulfillment.

CERTIFICATION: I, the undersigned, certify that, to the best of my knowledge and belief, these biodata correctly describe myself, my qualifications and my experience. I understand that any willful misstatement described herein may lead to my disqualification.

SIGNATURE: _____ 

DATE: _____ **21/03/2016** _____
Day / Month / Year