Dr. Deepti Chopra

Assistant Professor(IT)
Email id: deepti.chopra@lbsim.ac.in, deeptichopra11@yahoo.co.in
Mobile: +91 07023949330

Permanent Address:
B 6/152, Rohini, Sector 11
Delhi- 110085, India

Work Experience: Total 7.5+yrs

- 4 Yrs (July 2013-Apr2017)-Assistant Professor in Department of Computer at Banasthali Vidyapith, Newai, Rajasthan.
- 1 Yr (July 2017-Apr 2018) – Guest Faculty at Guru Nanak Dev Institute of Technology, Delhi and Integrated Institute of Technology, Delhi.
- 6 months (July 2019-December 2019)- Guest Faculty at Guru Nanak Dev Institute of Technology, Delhi, Integrated Institute of Technology, Delhi and Lal Bahadur Shastri Institute of Management, Delhi.
- 1st Jan 2020- 15th September 2021 – Assistant Professor (IT) at Lal Bahadur Shastri Institute of Management, Delhi
- 16th September 2021-Present- Assistant Professor(IT), Jagan Institute of Management, Delhi

Field of Research Interest

Natural Language Processing- Machine Translation, Named Entity Recognition, Morphological Analysis, Machine Transliteration and Artificial Intelligence.

ACADEMIC QUALIFICATION

EXAM / DEGREE	YEAR	NAME OF INSTITUTE	UNIVERSITY / BOARD	PERCENTAGE	REMARKS
PhD (CS)	2014 - 2019	BANASTHALI VIDYAPITH	BANASTHALI VIDYAPITH	75	PhD Topic: Quality Improvement of Machine Translation
M. Tech (CS)	2013	BANASTHALI VIDYAPITH, JAIPUR	BANASTHALI VIDYAPITH	79.87	Topped in MTech final Year
B. Tech (CS)	2011	RAJASTHAN COLLEGE OF ENGINEERING FOR WOMEN	RAJASTHAN TECHNICAL UNIVERSITY, KOTA	78.2	Topped College in BTech 2nd Sem. & 8th Sem.
12th	2007	RYAN INTERNATIONAL SCHOOL	CBSE	78.2	Subjects – Physics, Chemistry, Maths, Distinction in 3 subjects
10th	2005	RYAN INTERNATIONAL SCHOOL	CBSE	85	Distinction in All Subjects

DETAILS OF BOOK PUBLISHED:

1. Chopra, D. (2021), "Building Machine Learning Systems using Python", BPB Publication, ISBN 978-93-8942-361

2. Chopra, D. (2019), "Named Entity Recognition in Natural Languages Using Hidden Markov Model", Lambert Academic Publishing, Published on 14th May 2019.
3. Chopra, D. (2016), "Mastering Natural Language Processing With Python", Packt Publishing, ISBN: 9781783989041, June 2016.

4. Chopra, D. (2016), "Natural Language Processing: Python and NLTK", Packt Publishing. ISBN: 9781787285101, November 2016.

5. Chopra, D. (2021), "Hidden Markov Model Based Named Entity Recognition System", ISBN: 979-8769491467, November 2021.

DETAILS OF PATENTS:

Chopra, D. (2021), Australian patent, "Named Entity Translation from Hindi to English Using Rule Based Approach", patent number: 2021103544, granted on August 4, 2021

DETAILS OF PROJECTS:

1. MTech Dissertation on topic "Named Entity Recognition Using Hidden Markov Model". I made a tool using Python that could identify Named Entities using HMM.

2. PhD Dissertation on topic "Improving the quality of Machine Translation Using Ensemble Approach". I tried to improve the quality of Machine translation from English to Hindi and Hindi to English by performing Source Text Rewriting and Named Entity Translation prior to Statistical Machine Translation. I have been granted Australian patent for the same.

3. Seed Research at LBSIM, Delhi on topic "Book Recommendation System Using Python". I have created a dataset having information such as author name, book name, description, genre etc. I have built book recommendation system using Python that could recommend books based on past history, genre etc.

LIST OF SUBJECTS TAUGHT SO FAR

Artificial Intelligence
Natural Language Processing
Machine Learning
C Programming
Digital Image Processing
Software Engineering
Operating System
Machine Translation
Database Management System
Computer Graphics
Python Programming
Distributed Systems
Data Structures
Computer Networks
Design and Analysis of Algorithms
Geographical Information Systems
Operational Research
Operating System

BRIEF OF WHITE PAPERS PUBLISHED IN INTERNATIONAL CONFERENCES AND JOURNALS:

1. Chopra D. and Morwal S. (2012), "Recognition of Named Entities in Indian languages"In Proceedings of 7th Biyani International Conference (BICON – 12) ("Techno Global Expansion, Impacts & Challenges") held on 18th Sept. 2012. Also, I was winner in the Oral Presentation.

2. Chopra D. and Morwal S. (2012) " Proper Noun Classification in Indian languages"In Proceedings of International Conference on Computer Science & Information Technology (ICCSIT-2012)-7th Oct, 2012, Bhopal- ISBN: 978-93-82208-24-2 Pp. 21-25

3. Chopra D. et. al(2012), "Hindi Named Entity Recognition By Using Rule Based Heuristics And Hidden Markov Model", International Journal of Information Sciences and Techniques (IJIST) Vol.2, No.6, November 2012. DOI : 10.5121/ijist.2012.2604. pp. 43-52.
   Available at: http://airccse.org/journal/IS/papers/2612ijist04.pdf

4. Chopra D. and Morwal S. (2012), " Named Entity Recognition in Punjabi Using Hidden Markov Model" International Journal of Computer Science & Engineering Technology (IJCSET) ISSN : 2229-3345 Vol. 3 No. 12 Dec 2012, Pp. 616-620.
   Available at: http://www.ijcset.com/docs/IJCSET12-03-12-025.pdf

5. Chopra D. and Morwal S. (2013), "Named Entity Recognition in English using Hidden Markov Model" International Journal on Computational Sciences & Applications (IJCSA) Vo3, No.1, February 2013, DOI : 10.5121/ijcsa.2013.3101,Pg 1-6
   Available at: http://airccse.org/journal/ijcsa/papers/3113ijcsa01.pdf

6. Chopra D. and Morwal S. (2013) "Detection and Categorization of Named Entities in Indian languages using Hidden Markov Model" International Journal of Computational Science and Information Technology (IJCSITY) Vol.1, No.1, February 2013, Pp. 25-32. Available at: http://airccse.org/journal/ijcsity/papers/1113ijcsity04.pdf

7. Morwal S., Jahan N. and Chopra D.(2012), **"**Named Entity Recognition using Hidden Markov Model (HMM)" International Journal on Natural Language Computing (IJNLC) Vol. 1, No.4, December 2012,DOI : 10.5121/ijnlc.2012.1402 , Pp. 15-23
   Available at: http://airccse.org/journal/ijnlc/papers/1412ijnlc02.pdf

8. Morwal S. and Chopra D.,"Identification and Classification of Named Entities in Indian Languages"International Journal on Natural Language Computing (IJNLC) Vol. 2, No.1, February 2013 DOI : 10.5121/ijnlc.2013.210 Pp. 37-43

   Available at:http://airccse.org/journal/ijnlc/papers/1412ijnlc02.pdf

9. Jahan N., Morwal S., Chopra D. (2012),**"** Named Entity Recognition in Indian Languages Using Gazetteer Method and Hidden Markov Model: A Hybrid Approach "International Journal of Computer Science & Engineering Technology (IJCSET) ISSN : 2229-3345 Vol. 3 No. 12 Dec 2012, Pp. 621-628. Available at: http://www.ijcset.com/docs/IJCSET12-03-12-030.pdf

10. Morwal S. and Chopra D. (2013)," NERHMM: A Tool For Named Entity Recognition based on Hidden Markov Model "International Journal on Natural Language Computing (IJNLC) Vol. 2, No.2, April 2013 DOI : 10.5121/ijnlc.2013.2204, Pg 43-49.
    Available at: http://airccse.org/journal/ijnlc/papers/2213ijnlc04.pdf

11. Morwal S., Chopra D. and Purohit G.(2013), "Named Entity Recognition in Natural languages using Transliteration "International Journal on Natural Language Computing (IJNLC) Vol.2, No. 3, June 2013, DOI : 10.5121/ijnlc.2013.2306, Pg 55-60.
    Available at: http://airccse.org/journal/ijnlc/papers/2313ijnlc06.pdf

12. Chopra D., Morwal S. and Purohit G.(2013), "Hidden Markov Model Based Named Entity Recognition Tool" International Journal in Foundations of Computer Science & Technology (IJFCST), Vol. 3, No.4, July 2013, DOI:10.5121/ijfcst.2013.3408, Pp 67-73.
    Available at: http://airccse.org/journal/ijfcst/papers/3413ijfcst08.pdf

13. Chopra D., Morwal S. and Purohit G. (2013), "Handling Unknown Words in Named Entity Recognition using Transliteration "International Journal on Natural Language Computing (IJNLC) Vol. 2, No.4, August 2013, DOI : 10.5121/ijnlc.2013.2406, Pg 87-93. Available at- http://airccse.org/journal/ijnlc/papers/2413ijnlc06.pdf

14. Chopra D., Purohit G. (2013)," Handling Ambiguities and Unknown Words In Named Entity Recognition Using Anaphora Resolution" .International Journal on Computational Sciences & Applications (IJCSA) Vol.3, No.5, October 2013 Pp. 29-35. Available at: http://airccse.org/journal/ijcsa/papers/3513ijcsa04.pdf

15. Chopra D., Tyagi S. and Joshi N. (2015), "स्रोत टेक्स्ट पुनर्लेखन के द्वारा मशीन अनुवाद की गुणवत्ता में सुधार" , published by DESIDOC(Defence Scientific Information and Documentation Centre) Bilingual International Conference on Information Technology: Yesterday, Today and Tomorrow -2015 ,organized by DRDO on 19-21February 2015 in Delhi.

16. Tyagi S., Chopra D., Mathur I. and Joshi N.(2015),"Classifier Based Approach For Improved Machine Translation" International Conference on Advances in Computer Engineering and Application 2015, organized by IMS Engineering College, Ghaziabad, 19th-20th March 2015, published in IEEE. (Scopus)

17. Tyagi S., Chopra D., Mathur I. and Joshi N. (2015), "Comparison Of Classifier Based Approach with Baseline Approach For English-Hindi Text Simplification", International Conference on Computing, Communication and Applications, Organized by Galgotia University, Greater Noida 15-16th May 2015, published in IEEE. (Scopus)

18. Chopra D., Joshi N., Mathur I. (2016),"Improving Quality of Machine Translation using Text Rewriting", Second International Conference on Computational intelligence and communication technology (ICICT-2016) , Held at ABES Engineering College on 12th -13th February 2016, IEEE Explore through IEEE CPS (Scopus)

19. Chopra D., Joshi D., Mathur I. (2016), "Named Entity Recognition in Hindi Using Hidden Markov Model ",Second International Conference on Computational intelligence and communication technology (ICICT-2016) , Held at ABES Engineering College on 12th -13th February 2016, IEEE Explore through IEEE CPS (Scopus)

20. Chopra D., Joshi N., Mathur I. (2016), "Named Entity Recognition in Hindi Using Conditional Random Fields", Second International Conference on Information and Communication Technology for Competitive Strategies, held on 5th March 2016, held in Udaipur in Pacific University. Published in ACM. (Scopus)

21. Chopra D., Joshi N., Mathur I. (2016),"Quality Improvement of Machine Translation", Vigyan Prakash Journal- A Hindi Journal of Research In Science, Issue 1-2, Jan-July 2016, ISSN: 1549-523-X, pp. 13-18. (UGC cared listed)

22. Chopra D., Joshi N., Mathur I. (2018), "Machine Translation in Indian Languages", International Journal of Computer Sciences and Engineering, Vol.6, Issue.8, pp. 863-868 (ESCI Indexed)

23. Chopra D., Joshi N., Mathur I. (2018),"A review on machine translation in Indian Languages", Engineering, Technology and Applied Science Research, Vol. 8, No. 5 (ESCI Indexed)

24. Chopra D., Joshi N., Mathur I. (2018),"Improving Translation Quality by using Ensemble Approach", Engineering, Technology and Applied Science Research, Vol. 8, No. 6 (ESCI Indexed)

25. Chopra D., Joshi N. (2020), "Improving Quality of Translation Using Ensemble Approach" International Journal of Scientific and Technology Research, Vol. 9, No. 9, pp. 165-171, (Scopus)

26. Chopra D., Kharb L, Chahal D. (2021), "Book Recommendation System – An hour of need in COVID-19 pandemic", Design Engineering (Toronto), ISSN: 0011-9342 (Accepted) **Scopus**

ACHIEVEMENTS AND EXTRA CURRICULAR

- Winner in Oral Presentation at 7th Biyani International Conference (BICON – 12) ("Techno Global Expansion, Impacts & Challenges") held on 18th Sept. 2012.
- Participated in various cultural and literary activities at school and college level.
- Got trophy in the event "Group Song" organized by Punjab National Bank.
- Stood first in Message Writing Competition
- Got Academic Excellence Award from PIE (Patrika In Education).
- Participated in social activities conducted by "Help Old Age" organization
- Achieved diploma in couse in PHP from e World 4 u Ltd.
- Participated in National Workshop on Information Security &Ethical Hacking held at Rajasthan College of Engineering For Women , organized by Appin Knowledge Solutions from 23rdApril 2010 to 24th April 2010.
- Participated in Workshop on Software Engineering held at Rajasthan College of Engineering For Women from 30th Jan 2010 to 21st February 2010.
- College Topper in BTech (IInd and VIIIth Sem.) and University topper in Mtech (Final year)
- Program Committee Member in "The Second International Conference on Foundations of Computer Science & Technology (FCST-2014)" June 14-15, 2014, Zurich, Switzerland. Available at: http://coneco2009.com/2014/fcst/committee.html
- Editorial board member of AR Research Publication and Conference World
- IBM RTC Certified
- Research and Training in M Tech (Final Year) on the Topic "Named Entity Recognition in Natural Languages Using Hidden Markov Model". I have devised a Language Independent tool based on Hidden Markov Model that performs Named Entity Recognition in all the natural languages. It also solves the problem of unknown words in Named Entity Recognition using Transliteration approach.
- Member of Placement Team for MCA,MTech and BTech at Banasthali (2015-2016).
- Reviewer of Advances in Science, Technology and Engineering Systems Journal
- Attended seminar on "BigData Hadoop – The Need of The Day For Data Analytics on 1st December 2014 at Banasthali University organized by Linux World Informatics Pvt Ltd.
- Attended Sensitization Workshop on Technological Empowerment of Women by National Academy of Sciences, India, held on14-15 March 2016 in Banasthali University
- Attended workshop on Advancement in Computing organized by Apaji Institute of Mathematics and Applied Computer Technology, Banasthali Vidyapith, Rajasthan on 9th and 10th September 2016.
- Attended One Week FDP on "Soft Computing Techniques and Applications" during 23-28th December 2018, organized by Banasthali Vidyapith, Newai, Rajasthan.
- Attended Two Weeks Faculty Development Program, in Online Mode, on "Emerging Research Trends In Computer Science and IT" during 8th-19th June, 2020 organised by BVICAM, New Delhi.
- Achieved NPTEL Online Certification, Swayam, on "Machine Learning", with 76% Score.
- Reviewed a book titled " Hands-on Python Natural Language Processing", published by Packt Publishing House in July 2020.
- Attended Online Webinar on "Open Source for Artificial Intelligence and Machine Learning" on 6th July 2020 organized by the Department of Information Technology, Bhagwan Parshuram Institute of Technology, New Delhi
- Chopra Deepti (2021), Attended two week online certification program (webinar) on Data Science for All, organized by IIT Guwahati, NIT Patna and MNIT Jaipur from 12th Apr to 23rd Apr 2021.
- Chopra Deepti (2021), Completed a five week course on " Blockchain Scalability and its foundations in Distributed Systems" from Coursera organized by The University of Sydney, Oct 2021
- Chopra Deepti (2021), Completed a five week course on "Introduction to Data Analytics from Coursera organized by IBM, September 2021

PERSONAL PROFILE

- Nationality :Indian
- Gender :Female
- Date of Birth :31st January 1990
- Status :Married
- Husband's name :Mr. Roopal Khurana
- Mobile :+91-7023949330
- Email Id :deeptichopra11@yahoo.co.in,
- Permanent Address :B-6/152 Rohini, Sector 11, Delhi- 110085

DECLARATION:
I hereby declare that above information is correct to the best of my knowledge and belief.

Place: Delhi **(Deepti Chopra)**