

**Prof. Girish Nath Jha** 

Professor of Computational Linguistics School of Sanskrit and Indic Studies

Concurrent Faculty, School of Engineering Concurrent Faculty, Center for Linguistics, SLL&CS Concurrent Faculty, Special Center of E-Learning (SCEL)

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## **Education**

M.A :	1991, Linguistics, JNU, New Delhi
M.Phil :	1993, Linguistics (Computational Morphology), JNU, New Delhi
Ph.D :	1998, Linguistics (Machine Translation), JNU, New Delhi
M.A. :	1999, Linguistics (Natural Language Interface) University of Illinois, Urbana-Champaign, USA

## **Research Interest**

Indian languages corpora and standards, Sanskrit and Hindi linguistics, Science & Technology in Sanskrit texts, Computational Lexicography, Machine Translation, elearning, web based technologies, RDBMS techniques, software design and localization

## **Employment History**

- *Coordinator*, Ayurveda Biology Program, School of Sanskrit and Indic Studies, JNU (28/2/2020-)
- *Dean*, School of Sanskrit and Indic Studies, JNU (29/12/2017-28/12/2019)
- *Director*, International Collaboration, JNU (05/05/2016-14/01/2018)
- *Chairperson*, Special Center for Sanskrit Studies, JNU (19/2/2016-28/12/2017)
- *Professor of* Computational Linguistics, Special Center for Sanskrit Studies, J.N.U (since 2014)
- Associate Professor of Computational Linguistics, Special Center for Sanskrit Studies, J.N.U (since 2008)
- Assistant Professor of Computational Linguistics, Special Center for Sanskrit Studies, J.N.U (since 2002)
- Software Development Specialist, Human Kinetics, Champaign, Illinois, USA (2001 2002)
- *Software Engineer*, Collaborative Technologies (renamed dChain Commerce), Champaign, Illinois, USA (1999 2001)
- *Research Assistant*, Beckman Institute for Advanced Science and Technology, University of Illinois, Urbana-Champaign, USA (1998 1999)
- *Research Assistant*, Dept. of Psychology, University of Illinois, Urbana-Champaign, USA (Summer, 1997)
- *Teaching Assistant*, Dept. of Linguistics, University of Illinois, Urbana-Champaign, USA (1996-1998)

### Administrative Experience

- Chairperson, Security Advisory Committee, JNU since 2020
- Chairperson, Space Committee, JNU since 2019
- Chairperson, Committee on plagiarism check, JNU since 2018
- Member, Steering committee for 4<sup>th</sup> Convocation, JNU, 2019
- Member, Anti-Ragging Committee, JNU since 2019
- Member, Committee on Career Advancement for faculty, JNU since 2019
- Member, Steering committee for 3rd Convocation, JNU, 2018
- Member, Committee for service matters for teaching/non teaching staff, JNU, 2018
- Member, Hub Advisory Committee for Trans-disciplinary Research Cluster, JNU, 2016

### **International Visiting Faculty**

- 5. Guest Professor, **University of Wurzburg, Germany**, under DAAD fellowship, November 2016
- 4. Visiting Professor, University of Florence, Italy, June-July 2016
- 3. Short-term guest Lectureship at **University of Wurzburg**, **Germany** to teach a short course in Computational Linguistics at the Digital Humanities department under a DAAD fellowship during Jan, 2014
- 1. Short-term guest Lectureship at **Yogyakarta State University**, **Indonesia** during March, 2013 to teach one week course on Computational Linguistics to the faculty of the University.
- 1. Mukesh and Priti Chatter Distinguished Professor of History of Science, University of Massachusetts Dartmouth, USA (2009-2012)

# **Consultancies**

- 1. Google consultancy for studying bilingual interactions in the NCR (Dec 2020-)
- 2. *Nuance Communications* consultancy for mobile keyboard for Indian languages (Feb-April 2016)
- 3. *Swiftkey* consultancy for mobile phones predictive keyboard for minor Indian languages (Jan-March 2015)
- 4. *EZ Data Intelligence* consultancy for research in smart text processors for medical domain, 2013-
- 5. *Microsoft Research*, *Redmond*, USA for *Machine Translation for Indian Languages*, July August 2012
- 6. *Linguistic Data Consortium (LDC)*, *University of Pennsylvania*, Philadelphia, USA for *narrow band data for language identification by computers*, January April 2011
- 7. Center of Indic Studies, University of Massachusetts, Dartmouth, USA, for exploring scientific texts in Sanskrit, 2010-12
- 8. *Center for Development of Advanced Computing (CDAC)*, Pune consultancy for Software Localization, 2007
- 9. *Microsoft Research India Lab*, Bangalore for their POS tagging project for Indic languages, November 2006-January 2007
- 10. *Microsoft India* on their project on Handwriting Recognition for Devanagari, February June 2006
- 11. *Mahatma Gandhi International Hindi University*, Wardha (then New Delhi)on their Database system for dialects of Hindi project (2002-2003)

# Invited Lectures/Talks (237)

237. Resource Creation for Natural Language Processing (NLP), Winter School for Women 2021, ICFOSS, Trivandrum, 8 Feb, 2021

236. *Natural Language Processing (NLP) in Cyber Security*, Chief Guest talk in AICTE (ATAL) FDP in Cyber Security, Mahatma Gandhi Antarrashtriya Hindi University, Wardha, 8 Feb, 2021

235. Natural Language Processing (NLP) and Computational Linguistics (CL) – methods, models and resources, Winter School for Women 2021, ICFOSS, Trivandrum, 5 Feb, 2021

234. E-learning concepts and practices in multilingual societies, FIP, HRDC, JNU, 29 Dec, 2020

233. *E-learning theories and practices in multilingual societies*, TEQUIP, IIT Roorkee, 14 Dec, 2020

232. Resource creation for NLP in legal domain, Symbiosis Law School, Pune, 20 Nov, 2020

231. *Research methods in Linguistics and Computational Linguistics*, Refresher Course in Research Methods, HRDC, JNU, 23 Oct 2020

230. आधुनिक भाषाविज्ञान में पाणिनि और चॉम्स्की, वेदविज्ञान व्याख्यानमाला-२१, संपूर्णानन्द संस्कृत विश्वविद्यालय, वाराणसी, २२ अक्तूबर, २०२०

229. *Resource Creation for AI driven e-learning in diverse societies*, 3rd Refresher Course in E-learning E-Governance, HRDC JNU, 14 Oct 2020

228. AI in e-learning, 3rd Refresher Course in E-learning E-Governance, HRDC JNU, 7 Oct 2020

227. *e-learning: theories concepts and practices*, 3rd Refresher Course in E-learning E-Governance, HRDC JNU, 6 Oct 2020

226. "AI in e-learning" in "Short term course on e-learning" organized by HRDC, JNU, 29 Aug 2020

225. "*e-learning: theories, concepts and practices*", in "Short term course on e-learning" organized by HRDC, JNU, 24 Aug 2020

224. "Indian Languages, Computational Linguistics and Sanskrit", Sanskrit Department, Bankura University, 6 Aug 2020

223. "Newer dimensions of research and job opportunities in Sanskrit studies", Shresth Kala Sangam talk on "Sanskrit Diwas", 3 Aug 2020

222. "Computational Linguistics for Sanskrit", Facebook Live lecture organized by "Sanskrit Shaurya", 18 July 2020

221. "Sanskrit and Artificial Intelligence", Online keynote talk, SD College Ambala, 16 July 2020

220. "*Challenges in Panini Computing*", 7-day international workshop on Text and music digitization, Rabindra Vidyalaya, Champadanga, Hoogly, 15 July 2020

219. "Sanskrit and other Indian languages resources for ML based tech development", Keynote in ACM Summer workshop, Indira Gandhi Delhi Technical University, 4 July 2020

218. "Panini and AI", Kanad Lecture Series, Himachal Pradesh Central University, 27 June, 2020

217. "Development Deployment and Hosting of e-learning Systems for India–concepts and practices", talk in webinar organized by "Special Center for e-learning", JNU, 11 June 2020

216. *'Java/JSP Programming Language & Sanskrit-Java Interface''*, Lecture in Online Workshop on "Digitization and Development of e-resources for Sanskrit", with Kabi Khanganba, 2 June 2020, Jointly organized by JNU and DU

215. "*OCR and related technologies*", Lecture in Online Workshop on "Digitization and Development of e-resources for Sanskrit", 1 June 2020, Jointly organized by JNU and DU

214. *"Sanskrit & Digital Modes of Education"*, Lecture in Online Workshop on "Digitization and Development of e-resources for Sanskrit", 31 May 2020, Jointly organized by JNU and DU

213. "*Corpora, Machine Learning and Statistical methods*", Lecture in Online Workshop on "Digitization and Development of e-resources for Sanskrit", 30 May 2020, Jointly organized by JNU and DU

212. "*Panini and Formal Methods in Linguistics*", Lecture in Online Workshop on "Digitization and Development of e-resources for Sanskrit" with Shiladitya Bhattacharya, 28 May 2020, Jointly organized by JNU and DU

211. "*Computational Linguistics and Sanskrit*", Lecture in Online Workshop on "Digitization and Development of e-resources for Sanskrit", 27 May 2020, Jointly organized by JNU and DU

210. "Technologies for Online learning for Indian languages- fundamental concepts & *methods*", keynote webinar organized by SD College Ambala and KM Vidyalay, Jalandhar, 28 May 2020

209. "*Technologies and methods for Online Sanskrit learning*", keynote webinar organized by Janki Devi Memorial College, Delhi University, 22 May, 2020

208. "*NLP in legal domain – where are we in India*", keynote webinar organized by Law College, Vinoba Bhawe University, Hazaribagh, 21 May, 2020

207. "Introduction to Computational Linguistics", keynote talk in a national webinar organized by KMV, Jalandhar, 17 May 2020

206. "Unlocking full potential of legal data", panel discussion organized by Agami Inc, Omidyar Network, 15 May 2020

205. "Technology for Online Sanskrit learning: Development, Deployment and Delivery Environments", talk in a national webinar organized by Kavi Kulaguru Sanskrit University, Ramtek, 2 May, 2020

204. "Developing end-to-end e-learning solutions for diverse societies", Yogyakarta State University, Indonesia, 28 Feb 2020

203. "Computational Linguistics for e-education", Yogyakarta State University, Indonesia, 28 Feb 2020

202. "ICT based learning culture – experiences from Indian universities and JNU, ICT based learning culture – experiences from Indian universities and JNU", Yogyakarta State University Indonesia, 28 Feb 2020

201. "Linguistic Data Driven Language Technology in multilingual societies", Udayana University, Bali, Indonesia, 26 Feb, 2020

200. "Sanskrit today and tomorrow – exploring newer contours", LangFest-2020: International Conclave on Mother Language (AMARI BHASHA PATHE-VI), Constitution Club of India, New Delhi on Feb20-21, 2020

199. "AI in wilderness – perils of linguistic computing in diverse societies", 1st G L Kaul Memorial Lecture, Dept of CS & IT, Jammu University, 10 Feb, 2020

198. "Digital Humanities - challenges and opportunities in India", IIT Roorkee, 4 Feb, 2020

197. "Semantic roadblocks in Computing Panini", IIT, Patna, 30 Jan 2020

196. "Big (Linguistic) Data and Heritage Computing", Vigyan Manthan Lecture Series, JNU, 22 Jan 2020

195. "Computational Linguistics in India", Orientation Course, HRDC, JNU, 21 Jan, 2020

194. "Big (Linguistic) Data and challenges for Indian language technology", NLP Winter school, ICFOSS, Trivandrum, 13 Jan, 2020

193. "Computational Linguistics and SOIL (Sanskrit and Other Indian Languages)", Refresher Course, Jammu University, Dec 23, 2019

192. "Computational Linguistics for Sanskrit", Refresher Course, Jammu University, Dec 23, 2019

191. "*Eco-coop and AI- an India-Korea hussle*", International Symposium on "Korea-India partnership for coexistence", Ahmadabad, Nov 30, 2019 Organized by CKS, JNU and HRDC Ahmadabad University

190. "SOIL-Tech : Sanskrit and Other Indian Languages Technology", 2<sup>nd</sup> Refresher course in Sanskrit, HRDC, JNU, Oct 23, 2019

189. "Layers of annotation and Challenges in annotating Classical languages", Digital Corpus of Sarala Mahabharata, Ravenshaw University, Oct 18, 2019

188. "*E-learning –concepts and nuances of application development in the Indian context*", Refresher course on e-learning, HRDC, JNU, Oct17, 2019

187. "Fundamental Questions in Formal Linguistic Theories – A comparison of Panini and Chomsky" (via Skype), in ICPR sponsored seminar on "Critique of Indian & Western Questioning Tradition", SD College Ambala, Oct5, 2019

186. "The art (and science and commerce) of selling yourself (resume writing and job interviews)", JNU Placement cell, 24 Sept 2019

185. "Computational Linguistics and India", 18th Refresher course in CS & IT, HRDC, JNU, 20 Sept, 2019

184. "If E-learning is difficult, doing it in India is more so", Refresher course on e-learning, HRDC, JNU, 20 Aug 2019

183. "*Nuances of Linguistic Computing and Big (Linguistic) Data in India*", National Seminar on Linguistics and Language Sciences in India- (NASLILANSI-2019) & workshops on forensic and corpus linguistics, Center of Linguistics, JNU, 9 Aug 2019

182. "Big (Linguistic) Data and challenges for Indian Language Technology", Golden Jubilee talk at CIIL Mysore, 17 July 2019

181. "Indian Languages in the Age of IT", IYIL-2019 Symposium, Suryaa Hotel, Delhi, 29 June 2019

180. "Language technology @JNU", FICCI-ILIA meeting at MEITY, 25 June 2019

179."Information Technology Applications for Sanskrit & Indic Studies", Invited talk at Charleton College of Business, University of Massachusetts, Dartmouth, MA, USA, 8 May 2019

178. "Computational Linguistics for Sanskrit & Indic Studies", Gurukul Kangri University, Haridwar, 27 Apr, 2019

177. "E-Learning in India in the Context of Open Source Resources", Workshop on E-learning, HRDC, JNU, 18 March 2019

176. "E-Learning: Concepts, Development and Delivery Platforms", Workshop on E-learning, HRDC, JNU, 18 March 2019

175. "*Resource creation for Indian Languages*", Bharat NLP - Niti Ayog workshop, IIT Delhi 30 March 2019

174. "Information Technology (IT) Applications on Sanskrit and Other Indian Languages (SOIL)", HRDC JNU Orientation Course, 12 March, 2019

173. "Sanskrit today – planning confident steps in the right direction", Sanskrit Dept, Amity University, 22 Feb, 2019

172. " भारतीय भाषाओं का संरक्षण और संवर्धन तकनीकी युग में, Plenary talk on Mother Tongue Day at Deshbandhu College, DU, 21 Feb, 2018

171. "AI in wilderness – the perils of linguistic computing in India", HRDC Refresher course, JNU, 19 Feb 2019

170. "Panini's model and its cross linguistic and cross disciplinary applications", HRDC Sanskrit Orientation, JNU, 11 Feb 2019

169. "Computational Linguistics, Digital Humanities and Challenges in Sanskrit Computing", HRDC Refresher course, JNU, 22 Jan 2019

168. "Information Technology (IT) for Sanskrit and Other Indian Languages (SOIL)", HRDC Refresher course, JNU, 22 Jan 2019

167. "Digital Humanities and Computational Linguistics for Sanskrit", Plenary talk at Bharati College, DU, 19 Jan, 2019

166. "*Sanskrit, Technology and value education*", International conference on "Human Qualities and Values for Sustainable Higher Education", Goa University, 13 Dec 2018

165. "Language Technology and India", Mahatma Gandhi International Hindi University, Wardha 25 Oct 2018

164. "Language Technology for Indian Languages", HRDC Refresher course, JNU, 9 Oct 2018

163. "Om – the non dual universal linguistic formalism", Plenary talk in World Parliament of religion, 3 Oct 2018

162. "Computational Linguistics for Sanskrit", lecture in Research Methodology course of School of Sanskrit and Indic Studies, JNU, 1 Oct 2018

161. "*LT Resource Crunch - challenges and opportunities for South Asian Languages*", Keynote in International Conference on Bangla Speech and Language Processing, Shahjalal Institute of Science & Technology (SUST), Sylhet, Bangladesh, 21 Sept 2018

160. "Language Technology Resource (LTR) creation for Sanskrit and Other Indian Languages (SOIL)", Dept of Sanskrit, Jamia Millia Islamia University, New Delhi, 14 Sept, 2018

159. "Language Technology Resource Creation for resource poor languages", DIAL2018, Vishvabharati, Shantiniketan, 9 Sept 2018

158. "Language Literature and Culture Studies in the Age of IT", HRDC Refresher course, JNU, 28 Aug 2018

157. "Consider MS in Computational Linguistics @JNU", Lecture to Engineering students' orientation, JNU, 7 Aug 2018

156. "Origin and Development of Hindi", Lecture to Korean students, SLL&CS, JNU, 6 Aug 2018

155. "Panini's contribution to linguistic analysis and formal models", Plenary talk in International Conference on "Actuating Indic Studies for a better world", Amity University, Gurugram, 2 Aug 2018

154. "Indian Language Technology Services Industry-The Present and the Future", Panelist in FICCI sponsored seminar on Bhashantara, 30 July 2018, New Delhi

153. "Languages, language policy and language education in India", Uberoi Foundation USA Teachers' Orientation, JNU, 11 July 2018

152. "NLP is difficult and doing it in India is more so (barriers of NLP research in India)", FICCI-ILIA workshop, New Delhi, 26 June 2018

151. "Language Technology Resource Development and the Big (Linguistic) Data Complexities", Plenary at JP Institute, Noida, 27 Apr 2018

150. "*Sanskrit and AI*", National workshop on "critique of ambiguity in Sanskrit shastras & Artificial Intelligence/Machine Translation, SD College, Ambala, March 10, 2018

149. "*Digital Humanities and technology Development for Indian languages*", National Seminar on Translation, Maulana Azad national Urdu University, Hyderabad, Feb 27, 2018

148. "*Language Literature and Culture Studies in the age of IT*", in an international seminar on "ICT for language learning - trends issues & challenges", St Ann's College, Hyderabad, Feb 22, 2018

147. "*Digital Humanities and technology Development for Indian languages and heritage*", LIPI, LITERATURE Conference, Ravenshaw University, Cuttack, Odisha, Feb 3, 2018

146. "India's diversity: challenges for Big Linguistic Data and Language Informatics", keynote speech at Uva Wallessa University, Sri Lanka, 1 Feb, 2018

145. "Script language and Digitization", Daulat Ram College, Delhi University, 26/12/2017

144. *"Resource Creation for Indian Language Processing"*, Plenary talk in a workshop on "Recent Trends in NL & Speech Processing", Ambedkar Institute of Advanced Communication Technology Research, Delhi, 12/12/2017

143. "Language Technology Resource Creation - the Big Linguistic Data Challenge of India", Plenary talk in 39th ICOLSI, IIT Patna, 9/12/2017

142. *"Big Linguistics Data and India Challenge"*, plenary talk in a seminar "Intelligence and Interactive Design", organized by Samsung India Research Network, Bangalore, 24/11/2017

141. *"Language Technology Resource Creation for Indian Languages"*, Inaugural lecture in the "Lecture by Eminent Personalities" series organized by TRAI, New Delhi, 21/11/2017

140. "Digital Humanities, Computational Linguistics and India", lecture at HRDC, JNU, 8/9/2017

139. "India's Ancient Wisdom - handle with care", invited panelist in Chinmaya Vishva Vidyapeeth, Kaladi, 12/6/2017

138. "Automatic Translation of Ancient Sanskrit manuscripts - Roadblocks for Human Language Technology", plenary talk in 23rd International Vedanta Congress, University of Massachusetts, Dartmouth, 13/8/2017

137. "Computational Sanskrit", CPDHE, Delhi University, 4/7/2017

136. "*The Future of Identity, Language and Technology in India*", Panel discussion for NDTV organized by Swiftkey (Microsoft), Hyatt Regency, New Delhi, 23/6/2017 https://gadgets.ndtv.com/videos/sponsored-swiftkey-the-future-of-identity-language-and-technology-463032

135. "Globalization, IT and Sanskrit", Satyavati College, Delhi University, 19/4/2017

134. "Big Linguistic Data and India challenge", School of Computational and Integrative Sciences, JNU, 11/4/2017

133. "Sanskrit and Computational Linguistics - Challenges and possibilities", PGDAV college, Delhi University, 31/3/2017

132. "Sanskrit and Natural Language Processing - Challenges and Possibilities", Dept of Sanskrit, Kerala University, 14/3/2017

132. "Computational Linguistics for Sanskrit and other Indian languages - Opportunities and Challenges", Shri Lal Bahadur Shastri Rashtriya Sanskrit Vidyapeeth, Delhi, 12/3/2017

131. *"Technology Development for Sanskrit and other Indian languages - Resource Creation and challenges"*, plenary talk delivered at Dept of Sanskrit, Tripura University, 3/3/2017

130. "Sanskrit and IT", Swami Shraddhanand College, Delhi University, 1/3/2017

129. "*JNU and its International Collaboration Efforts*", invited talk at EU-India Higher Education Cooperation Conference, India Habitat Center, 29/9/2016

128. "*Digital Humanities and heritage texts in Sanskrit*", invited talk in a national seminar titled "Leaning of Sanskrit shastras in present system" organized by Delhi University South Campus, 12th March, 2016

127. "Language Technology digital humanities and Indian heritage", invited talk in a national seminar on "Sustenance of Sanskrit", organized by SCSVMV University, Kanchipuram, March 4, 2016

126. "*New directions in Sanskrit research - Computational Linguistics*", invited talk at Shri Lal Bahadur Rashtriya Sanskrit Vidyapeeth, New Delhi, 25th Feb, 2016

125. "*Computational Linguistics and Sanskrit*", invited talk at Motilal Nehru College, Delhi University, 20th Feb 2016

124. "*Technology resource creation for Indian languages - a case of Sindhi*", invited talk in a national seminar on Sindhi NLP organized by Aryabhatta College, Delhi University, 19th Feb 2016

123. "Structured Language Resources (SLR) creation at JNU", invited talk in a seminar titled Real time translation among Indian languages organized by TIFAC, DST, New Delhi, 11 Feb 2016

122. "Big Data and the language of Gods", invited talk at "5<sup>th</sup> National Sanskrit Journalists Seminar", Akshar Dham, Delhi, 10 Dec, 2015

121. "India's Ancient Manuscripts - complexities and challenges for language informatics", Delivered at "Institute of Linguistics, Adam Mickiewicz University, Poznan, Poland, 30 Nov, 2015

120. "Computational Linguistics and India", Academic Staff College, JNU, Sept1, 2015

119. "Panini Computing: challenges and gains for AI", NCERT, 28 Aug, 2015

118. "Innovations in Sanskrit education", St. Thomas School, Noida, 27 Aug, 2015

117. "IT for Indian language and Literature", Academic Staff College, JNU, 26 August,

2015

116. *"Big data and recent trends in language informatics in India*", delivered in the national seminar on "Linguistics in Humanities", organized by Dept. of Linguistics, Delhi University, March 10-11, 2015

115. "Indian Heritage and Prakrit in the age of Information & Communication Technology", invited talk in the national Seminar on Prakrit, Shri Lal Bahadur Rashtriya Sanskrit Sansthan, Delhi, Feb 26, 2015

114. "*Sanskrit education in India – policies and innovations*", invited talk at the Nectarland Book release, India Habitat Center, Delhi, Feb 14, 2015

113. Invited lectures and labs in the "Faculty Development Program (FDP) on Natural Language Processing" at Dept. of Computer Science & engineering, A K Garg Engineering College, Ghaziabad, Jan 30-31, 2015

112. "Conclave on Language Informatics: South and South East Asian Languages (CLI-SSEAL)", presentation at Cambridge University Press, Delhi, 12 January, 2015

111. "*The Sharada project - background information*", delivered in the inaugural session of the "5-day National Workshop on Sharada script" organized by Millennium Indian Education Foundation (MIEF) at Department of Sanskrit, Mumbai University", Nov 6, 2014

110. "*Resource poverty to resource hunting - the case of Indian languages*". delivered at a national seminar on "Towards standardizing Khasi for Computational Purposes", St Anthony's College, Shillong, Oct 28, 2014

109. "Languages Technology and Education: India and Indonesia", Talk delivered at Yogyakarta State University, in an Exploratory Seminar under JNU-YSU collaboration, Oct 10, 2014

108. "*Preserving and promoting Sanskrit Manuscripts - Digitization and beyond*", Talk delivered in "National Workshop on Research Methodology in Sanskrit" at Rashtriya Sanskrit Sansthan, Agartala, Sept 20, 2014

- 107. "Information Technology innovations and fundamental sciences in Sanskrit : A multidisciplinary approach to research", Talk delivered in "National Workshop on Research Methodology in Sanskrit" at Rashtriya Sanskrit Sansthan, Agartala, Sept 19, 2014
- 106. "*Language Technology, corpora and standards for Indian languages*", Talk delivered at the Center for Indic Studies, University of Massachusetts, Dartmouth, Aug 29, 2014

- 105. "Sanskrit in the school curriculum looking ahead", DPS R K Puram, August 14, 2014
- 104. "Sanskrit in the age of IT the age of innovation", ARSD College, Delhi University, August 14, 2014
- 103. "ICT applications and innovations for Sanskrit a practical approach", NCERT, New Delhi, Aug 8, 2014
- 102. "*NLP and Indian Languages*", at the Refresher Course in Computer Sciences and Information Technology at Academic Staff College, JNU, July 28, 2014
- 101. "*Computational Linguistics for Sanskrit: a viable research option*", talk delivered at the CPDHE, Delhi University, July 10, 2014
- 100. "Knowledge representation in man and machine philosophy and beyond", Dept of Linguistics, Gujarat University, Ahmadabad, 21 March, 2014
- 99. Sanskrit Computational Linguistics: Opportunities and Challenges, talk delivered at Shri Lal Bahadur Rashtriya Sanskrit Vidyapeeth, Delhi, February 25, 2014
- 98. Language Technology Resources and challenges in emerging India, Dept of Letters & Philosophy, University of Florence, Italy, Jan 22, 2014
- 97. *Making most of diversity Language Technology in India*, German Center for Artificial Intelligence (DFKI), Berlin, Germany, Jan 20, 2014
- 96. Corpora, Standards and Language Technology a tale of emergent India, Wurzburg Center for Modern India, University of Wurzburg, Germany, Jan 16, 2014
- 95. Language diversity in India a challenge for resource creation, German Center for Artificial Intelligence (DFKI), Saarbrucken, Germany, Jan 13, 2014
- 94. *Indian Languages, Unicode and Automatic Transliteration*, Institute of Linguistics, Adam Mickiewicz University, Poznan, Poland, Dec 12, 2013
- 93. Computer Processing and Natural Language Engineering of Indian Languages: the Case study of Sanskrit II, Faculty of Mathematics and Computer Science, Adam Mickiewicz University, Poznan, Poland, Dec 11, 2013

- 92. Computer Processing and Natural Language Engineering of Indian Languages: the Case study of Sanskrit I, Faculty of Mathematics and Computer Science, Adam Mickiewicz University, Poznan, Poland, Dec 10, 2013
- 91. Language Technology Resource (LTR) development and India, invited talk in UGC Sponsored One Week National Workshop on Multilingual Technologies, Punjabi University, Patiala, Nov 12, 2013
- 90. Science And Technology In Ancient Indian Texts (SATIAIT) the latest report, presented at the Dept of Chemistry, University of Massachusetts, Dartmouth, July 18, 2013
- 89. *Information Technology for Indian Language and Literature*, invited talk at Chandigarh Sahitya Academy, May 25, 2013
- 88. *Language Technology and Empowerment*, presented at the international seminar on "Language and Power: Perspectives, Issues and Impact", April 6-7, 2013, Special Center for Sanskrit Studies, J.N.U.
- 87. *Computational Linguistics, corpora and standards: the big picture*, invited talk delivered at the Nepali Dept, North Bengal University, Siliguri, April 4, 2013
- 86. Newer dimensions of Sanskrit Research in the Information Technology Age, invited talk in Shri Lal Bahadur Shastri Rashtriya Sanskrit Vidyapeeha, March 6, 2013
- 85. Sanskrit in the Information Technology Age, invited talk at Daulat Ram College, University of Delhi, March 2, 2013
- 84. Sanskrit shodh ki nai dishaen, invited talk at Haryana Sanskrit Academy, Bhiwani, Haryana Feb 10, 2013
- 83. *Technology for Indian Heritage: the case of ancient scripts and texts*, invited talk in the National Seminar on "Application of Information Technology for conservation, editing and publication of Manuscripts", Samskriti Foundation, Bangalore, 21-22 Jan 2013
- 82. Language Technology Resource (LTR) Developments at JNU, invited talk at Academic Staff College, JNU, July 31, 2012

- 81. *Resource creation for Indian languages an update,* invited talk at a workshop on "Reinforcing International Collaboration on Language Resources and Evaluation", joint COCOSDA-FLaReNet workshop, LREC, Istanbul, May 26, 2012
- 80. *Emerging trends in Language Technology Resources (LTR) in India*, delivered at Microsoft Research, Redmond, USA, Apr 9, 2012
- 79. Science and Technology initiatives for Indian Languages: Impacting India through US and indigenous expertise, delivered at an International seminar on "Presence of America in India", University of Illinois, Urbana-Champaign, IL, USA, Apr 7, 2012
- 78. "*Sanskrit e-learning*", invited paper in a national seminar on education at Shri Lal Bahadur Rashtriya Sanskrit Vidyapeeth, Delhi, Feb17, 2012
- 77. *Sanskrit shodh ki naii dishaaen*, talk delivered at Shri Lal Bahadur Rashtriya Sanskrit Vidyapeeth, Delhi, Feb10, 2012
- 76. *Newer areas of R & D in Sanskrit at JNU: a report*, DPS Society, Dwarka, Jan18, 2012
- 75. *Computational Linguistics Corpora and standards: the big picture*, distinguished lecture at JNU lecture series, Feb 3, 2012
- 74. *Computational Linguistics Corpora and standards: the Indian situation*, talk delivered at IIT Patna, Jan30, 2012
- 73. *Enabling Indian languages on computers*, Workshop on Indian language computing, Mohini Devi Memorial School, Araria, 13-16 Jan, 2012
- 72. "*Indian languages corpora Initiative: current status and future directions*", inaugural talk at ILCI workshop organized by IIT Mumbai, Jan3-4, 2012
- 71. "Promoting Sanskrit through Science and Technology: A report on the latest developments at JNU", 20th International Vedanta Congress, JNU, Dec28-31, 2011
- 70. *Introduction to programming in Java*, , NLP Lecture Series at Kashmir University, sponsored by LDC-IL, CIIL Mysore, Nov8-9, 2011

- 69. "Linguistic Theory and Grammar Formalisms", NLP Lecture Series at Kashmir University, sponsored by LDC-IL, CIIL Mysore, Nov8-9, 2011
- 68. "Science & Technology in Sanskrit at JNU: A report", Convergence of Science and Spirituality, Nov 5, 2011, organized by ISSKCON, Sri Venkateswara College, South Campus Delhi University)
- 67. "Issues in POS tag-set design for Indian languages", Sept19, 2011, Inaugural talk in the "Workshop on POS-Morph: Urdu-Hindi& Maithili", organized by LDC-IL, CIIL Mysore, 19-21 Sept, 2011, CIIL Mysore
- 66. *Computational Linguistics and Sanskrit*, lecture delivered at International Sanskrit conference at Uttaranchal Sanskrit University, Haridwar, 11th Sept, 2011
- 65. "*Puruşāartha and Yoga: a no-contradiction approach*", invited talk in the "Summer Workshop on Dharmic Traditions", Center for Indic Studies, University of Massachusetts, Dartmouth, July19 & July26, 2011
- 64. "*Modern Hindu Practices and their evolution*", invited talk in the "Summer Workshop on Dharmic Traditions", Center for Indic Studies, University of Massachusetts, Dartmouth, July19, 2011
- 63. "What is dharma: following a textual strategy", invited talk in the "Summer Workshop on Dharmic Traditions", Center for Indic Studies, University of Massachusetts, Dartmouth, July18, 2011
- 62. "Why Study Sanskrit", talk delivered in "Trindic Corps Youth Camp", Organized by Center of Indic Studies and 3R Foundation, University of Massachusetts, Dartmouth, July1-4, 2011
- 61. Computational Linguistics, Talk delivered at Hindu College, Dec 21, 2010
- 60. Sanskrit and Computer, lecture delivered at NCERT teachers orientation, Dec 1, 2010
- 59. Language Technology Resources for Sanskrit and other Indian Languages at Jawaharlal Nehru University, India, LDC Institute, University of Pennsylvania, July 22, 2010
- 58. Multilingual Multimodal resources creating a leveling field in India, COCOSDA/WRITE/FLaReNet workshop "language Technology Issues for International cooperation", LREC2010, Malta, 22 May, 2010

- 57. *Indian Languages Corpora and Application Development at JNU*, Prof R N Shrivastava Memorial Lecture, Kendriya Hindi Sansthan, Agra, March 23, 2010
- 56. *Language Processing and Corpus Linguistics*, Prof R N Shrivastava Memorial Lecture, Kendriya Hindi Sansthan, Agra, March 22, 2010
- 55. Language Technology & Sanskrit, Dept of Sanskrit, Hansraj College, Delhi University, Feb 18, 2010
- 54. *Computational Linguistics for Sanskrit*, PhD research workshop, Sri Lal Bahadur Shastri Rashtriya Sanskrit Vidyapeeth, New Delhi, Feb 16, 2010
- 53. A national effort to develop technologies for multiple national languages the experience of India, FLaReNet (Fostering Language Resource Network), funded by European Commission, Barcelona, Spain, Feb 12, 2010
- 52. *International Collaboration: Europe and India*, FLaReNet (Fostering Language Resource Network), funded by European Commission, Barcelona, Spain, Feb 12, 2010
- 51. Why should you consider Sanskrit, Sanskrit Dept, Mothers School, Jan 22, 2010
- 50. *Hamaare gaon, shiksha aur computer*, Kuruom Vidyalaya: Inauguration and Educational Workshop, Jan 14, 2010, Kuruom, Sultanpur, UP
- 49. Web based technologies, Web Creations, Lucknow, Jan 13, 2010
- 48. *Linguistics for Sanskrit*, "Workshop on Sanskrit and Computers: Getting equipped to face the new challenges" organized jointly by the Department of Sanskrit Studies, University of Hyderabad, and the Sanskrit Academy, Osmania University, Hyderabad, 20 Dec 2009
- 47. *Java for Computational Linguistics,* "Workshop on Sanskrit and Computers: Getting equipped to face the new challenges" organized jointly by the Department of Sanskrit Studies, University of Hyderabad, and the Sanskrit Academy, Osmania University, Hyderabad, 21-23 Dec 2009
- 46. *Computational linguistics R&D at JNU*, "Workshop on Sanskrit and Computers: Getting equipped to face the new challenges" organized jointly by the Department of Sanskrit Studies, University of Hyderabad, and the Sanskrit Academy, Osmania University, Hyderabad, 23 Dec 2009

- 45. *Computational Linguistics and TDIL Programme*, panel discussion on "Getting lessresourced languages on board - which languages, which resources, which methods, which funding?", 4th International Language and Technology Conference (4th LTC), Poznan, Poland, Nov 6, 2009
- 44. *Indian Language Corpora Initiative (ILCI)*, invited talk, 4th International Language and Technology Conference (4th LTC), Poznan, Poland, Poznan, Poland, Nov 6, 2009
- 43. Sanskrit and Computer, Sanskrit Dept, Gargi College, Delhi University, Sept 17,2009
- 42. Documentation initiatives for Sanskrit and other Indian languages, International seminar on language documentation, Center for Linguistics, School of Languages Literatures & Culture Studies, JNU, Oct 27, 2009
- 41. JNU Text Encoding & Search for Sanskrit (J-TESS), Rashtriya Sanskrit Sansthan, Delhi, Oct 26, 2009
- 40. Issues in Sanskrit NLP and e-learning, Kanya Mahavidyalaya, Jallandhar, Aug 7,2009
- 39. Sanskrit aur Kampyutar, DPS HRD Center, Dwarka, New Delhi, Apr 15, 2009
- 38. *Emerging trends in Language Technology and Sanskrit Computing* at the Science Festival 2009, organized by School of Life Sciences, J.N.U., Feb 27, 2009
- 37. *Methods and Issues in Computer Processing of Panini*, Bhandarkar Oriental Research Institute, Pune, Feb22, 2009
- 36. *Introduction to Language Technology*, Center of Indian Languages, SLL&CS, JNU, Jan 23, 2009
- 35. *Introduction to Natural Language Processing*, refresher course for Computer Science, Academic Staff College, JNU, Nov 14, 2008
- 34. *Demonstration of Sanskrit software developed at JNU* (included as part of *Sanskrit CD* released by Ministry of IT and CDAC Pune, Nov 25), Tirupati Sanskrit Vidyapeeth
- 33. *Multimedia e-learning for Sanskrit*, at DPS, HRD Center, Dwarka, New Delhi, Nov 16, 2008

- 32. *Issues in Sanskrit NLP and e-learning,* Dept of Sanskrit, Pali and Prakrit, MD University Rohtak, Nov 7, 2008
- 31. Sanskrit and Computer, Haryana Sanskrit Academy at Bhiwani, 28/9/2008
- 30. Plenary speech in the international workshop titled *Anaphora Resolution II*, organized by Bergen University, Bergen, Norway, Aug29-31, 2008
- 29. Lecture series on *NLP and Panini*, Dept of Vyakarana, Faculty of Arts, Banaras Hindu University (BHU), March 25-26, 2008
- 28. Teaching through e-learning, Central Institute of Higher Tibetan Studies, Sarnath, Dec29-30,2007
- 27. *Multilingualism, localization and language computing,* IP Engineering College, Gaziabad, Nov 17, 2007
- 26. Invited speech at *First International Symposium on Sanskrit Computational Linguistics*, INRIA, at Paris-Rocquencourt, 29 Oct-31 Oct 2007
- 25. *Sanskrit Computational Linguistics* at Sanskrit Shodh Parishad , Delhi University, August 1, 2007
- 24. Lecture series on *Language Technology* at the NLSI summer training, CIIL Mysore, June 18-19, 2007
- 23. Computational Linguistics, Dept of Linguistics, Kashmir University, Srinagar, Feb23, 2007
- 22. Lecture-series in the area of *Sanskrit Computational Linguistics* at the *Dept of NLP and Shabdabodha*, Rashtriya Sanskrit Vidyapeetham, Tirupati, Andhra Pradesh, Jan25-27, 2007
- 21. Computational Phonology and Morphology, PGDLT course at CDAC, Noida, Jan 5, 2007
- 20. Language Technology. PGDLT course at CDAC, Noida, Dec 21, 2006
- 19. Lecture series on *Language Technology*, MA course on Language Technology at Mahatma Gandhi International Hindi University, Wardha, 11-15 Dec, 2006

- 18. *Sanskrit and computer*, Haryana Sanskrit Academy at Panchkula, Chandigarh, Nov 26, 2006
- 17. *Hindi Lexicography and computer,* at Central Hindi Institute, Agra, at the workshop on "Hindi dialect dictionary", Oct 16,2006
- 16. *Sanskrit and Computer*, Golden Jubilee Celebration of PGDAV College, Delhi University (organized by Delhi Sanskrit Academy, Sept 29, 2006
- 15. Invited talk at *Summit on Internationalization of Web* at Hotel Grand Ashoka, Bangalore (24-25 August, 2006) organized by World Wide Web Consortium (W3C) and Manufacturers' Association of Information Technology (MAIT)
- 14. *Computational Linguistics: an overview*, CDAC Kolkata, July 6, 2006
- 13. Linguistic theories and formal grammar models, CDAC Kolkata, July 5, 2006
- 12. Paninian Formalism for NLP, CDAC Kolkata, July 4, 2006
- 11. Invited talk at the *First National Symposium on Modeling and Shallow Parsing of Indian Languages(MSPIL-06)* 31st March - 4th April, 2006 at IIT Bombay
- 10. *Language and computers*, ASC Orientation Course, Rajdhani College, Delhi University, Dec 27,2005
- 9. Invited speech at the *National Seminar on Translation Today: state and issues*, Dept. of Linguistics, University of Kerala, Trivandrum, August 23-25, 2005
- 8. *Machine Translation* in the MA course on Translation Technology at Mahatma Gandhi Antarrashtriya Hindi University, Wardha, April11-16, 2005
- 7. *Computational aspects of Indian grammatical tradition* at the 4th course on IGT organized by CIIL, Mysore at NRLC, Patiala, Feb2005

- 6. *Computational aspects of Panini* at the Refresher course on Sanskrit Linguistics, organized by CIIL, Mysore at Dept. of Linguistics, Punjabi University, Patiala and at the NRLC, Patiala, Feb-March 2003
- 5. *Computational linguistics, e-learning* at the Orientation course on Information technology at Academic Staff College, JNU, August 2004
- 4. *Computational linguistics, e-learning* at the Orientation course on Information technology at Academic Staff College, JNU, December 2004
- 3. *Macromedia ColdFusion for dynamic web content* at UNESCO sponsored refresher course at School of Information Technology, JNU, September, 2003
- 2. Lectures on general linguistics, Kendriya Hindi Sansthan, Delhi: (1995-1996)
- 1. *Lectures in UGC sponsored computer courses*, Shri Lal Bahadur Shastri Rashtriya Sanskrit Vidyapeeth: (1995-1996)

## Keynote/Special Plenary talks

- "Sanskrit and other Indian languages resources for ML based tech development", Keynote in ACM Summer workshop, Indira Gandhi Delhi Technical University, 4 July 2020
- "AI in wilderness perils of linguistic computing in diverse societies", 1st G L Kaul Memorial Lecture, Dept of CS & IT, Jammu University, 10 Feb, 2020
- "LT Resource Crunch challenges and opportunities for South Asian Languages", Keynote in International Conference on Bangla Speech and Language Processing (ICBSLP), Shahjalal Institute of Science & Technology (SUST), Sylhet, Bangladesh, 21 Sept 2018
- "India's diversity: challenges for Big Linguistic Data and Language Informatics", keynote speech at Uva Wallessa University, Sri Lanka, 1 Feb, 2018
- "*Structured Language Resources for Indian languages a case of Malayalam*", invited inaugural talk at the launch of Center for Malayalam Language Technology at Malayalam University, Thirur, Kerala, 16 March 2016
- *"Typing pain endangers Indian languages"*, at Swiftkey mobile keyboard launch event, Le Meridian, Delhi, 15 July, 2015
- "*Big Data, Language Informatics and Sanskrit opportunities and challenges*", presented in the "WORKSHOP ON VEDIC-YOGIC KNOWLEDGE", Dayalbagh Educational Institute, Agra, 25 March 2015

- "Information Technology and emerging India a case of languages and literatures", Keynote speech in "13th Melus-Melow Conference", Dept of English, Jammu University, Jammu, 21 Feb, 2014
- "Language Technology in India: empowering millions", plenary talk in the "6th Language & Technology Conference: Human Language Technologies as a Challenge for Computer Science and Linguistics", December 8, 2013, Poznan, Poland
- "Current progress in developing Sanskrit and other linguistic resources", in International WAVES Conference 2012, University of Massachusetts, Dartmouth, MA, USA, July14, 2012
- "*Issues in POS annotation and limited crowd sourcing the case of ILCIANN*", keynote talk in a national seminar on "POS Annotation for Indian languages: Issues & Perspectives, organized by LDC-IL, CIIL Mysore, Dec 12-13, 2011
- *"Computational Linguistics and Sanskrit"*, keynote talk delivered at a workshop on "Computational Sanskrit" at SD College Ambala, 11th Nov, 2011

## **Research papers/articles** (138)

138, "Formal Sanskrit Syntax: A Specification for Programming Language", Khanganba, K. Kabi; Jha, Girish Nath, Proceedings of the 1st Conference of the Asia-Pacific Chapter of the Association for Computational Linguistics and the 10th International Joint Conference on Natural Language Processing: Student Research Workshop, 72-78 ISBN 978-1-952148-93-4. Suzhou, China: Association for Computational Linguistics, Dec 2020

137. "Abstractive Text Summarization for Sanskrit Prose: A Study of Methods and Approaches", Shagun Sinha, Girish Nath Jha, Workshop on Indian Language Data Resource & Evaluation, LREC 2020, ACL Anthology\

136. "*Multi-word Expressions extraction for Clinical Domain*, Srishti Singh, Girish Nath Jha, Nganthoibi Oinam, Diwakar Mishra, Hitesh Desai and Pinal Pate, in "Human Language Technologies as a Challenge for Computer Science and Linguists", Zygmunt Vertulani, Patrick Peroubek (eds), Wydawnictwo Nauka i Innowacje, Poznan, Poland, 2019

135. "Language Technology white Paper on Maithili", Uday Narayan Singh, Girish Nath Jha & Narayan Choudhary, 1st International Conference on SOIL-Tech, JNU, New Delhi, 15-17 Feb 2019

134. "*Developing Garhwali Corpus for Statistical Machine Translation*", Arushi Uniyal and Girish Nath Jha, 1<sup>st</sup> International Conference on SOIL-Tech, JNU, New Delhi, 15-17 Feb 2019

133. "Issues & Challenges in Building SMT Systems for Lesser-known Languages (The Case of English-Bhojpuri & English-Garhwali)": Atul Kr. Ojha, Arushi Uniyal and Girish Nath Jha, 1<sup>st</sup> International Conference on SOIL-Tech, JNU, New Delhi, 15-17 Feb 2019

132. "*Language Technology white paper on Hindi*", S.S. Aggrawal, Dipti Mishra Sharma & Girish Nath Jha, 1<sup>st</sup> International Conference on SOIL-Tech, JNU, New Delhi, 15-17 Feb 2019

131. "*Language Technology white paper on Sanskrit*", Girish Nath Jha, Shrinivas Varakhedi & Malhar Kulkarni, 1<sup>st</sup> International Conference on SOIL-Tech, JNU, New Delhi, 15-17 Feb 2019

130. "*English Multi-Word Expressions (MWE): A Tagset for Health Domain*" Srishti Singh and Girish Nath Jha. In Proceedings of International Conference on Advances in Computing, Communications and Informatics (ICACCI 2018), 2018, pg 1812-1817. Date Added to IEEE Xplore: 03 December 2018. DOI: 10.1109/ICACCI.2018.8554795. IEEE. Electronic ISBN: 978-1-5386-5314-2, Print on Demand(PoD) ISBN: 978-1-5386-5315-9 (Scopus)

129. "*Translation Issues in Conversation Sanskrit-Bhojpuri Language Pair: An MT Perspective*. Shagun Sinha and Girish Nath Jha. procs of the "4th Workshop on Indian Language Data: Resources and Evaluation" (WILDRE) held under Language Resources and Evaluation Conference, Miyazaki, Japan, 2018, ISBN: 979-10-95546-09-2

128."Automatic Language Identification System for Hindi and Magahi", Priya Rani, Atul Kr. Ojha and Girish Nath Jha, poster in the procs of the "4th Workshop on Indian Language Data: Resources and Evaluation" (WILDRE) held under Language Resources and Evaluation Conference, Miyazaki, Japan, 2018, ISBN: 979-10-95546-09-2

127. "*Demo of Sanskrit-Hindi SMT System*", Rajneesh Pandey, Atul Kr. Ojha and Girish Nath Jha, 4th Workshop on Indian Language Data: Resources and Evaluation" (WILDRE) held under Language Resources and Evaluation Conference, Miyazaki, Japan, 2018, ISBN: 979-10-95546-09-2

126. "*Demo: Parts-of-Speech Tagger for Bhojpuri*", Srishti Singh and Girish Nath Jha, 4th Workshop on Indian Language Data: Resources and Evaluation" (WILDRE) held under Language Resources and Evaluation Conference, Miyazaki, Japan, 2018, ISBN: 979-10-95546-09-2

125."Demo: Graphic-based Statistical Machine Translator", Atul Kr. Ojha and Girish Nath Jha, 4th Workshop on Indian Language Data: Resources and Evaluation" (WILDRE) held under Language Resources and Evaluation Conference, Miyazaki, Japan, 2018, ISBN: 979-10-95546-09-2

124."*Challenges in Annotation and Domain Adaptation in Hindi POS Tagger: with Reference to Cricket*", Anupama Pandey, Srishti Singh, Atul Kr. Ojha and Girish Nath Jha, procs of the "International Conference on Applied and Theoretical Computing and Communication Technology (ICATCCT-2017)", Karnataka, 21-23rd December 2017 (Scopus)

123."Zero Pronouns and Their Resolution in Sanskrit Texts", Madhav Gopal and Girish Nath Jha, in the procs of Intelligent Systems Technologies and Applications. ISTA'17, Manipal University, Karnataka 13-16 September, 2017. Advances in Intelligent Systems and Computing, vol 683, Springer (Scopus)

122."A Classification-based Approach to the Identification of Multiword Expressions (MWEs) in Magahi Applying SVM", Shivek Kumar, Pitambar Behera & Girish Nath Jha, Procs of International Conference on Knowledge-Based and Intelligent Information and Engineering Systems, KES-2017, 6-8 September 2017, Marseille, France, Procedia Computer Science (Elsevier), (18770509), 112, pp.594-603, 2017 (Scopus)

121."*The IMAGACT4ALL Ontology of Animated Images: Implications for Theoretical and Machine Translation of Action Verbs from English-Indian Languages*", Pitambar Behera, Sharmin Muzaffar, Atul Kr. Ojha and Girish Nath Jha, in the procs of "6th Workshop on South and Southeast Asian Natural Language Processing (WSSANLP-2016)" held under COLING at Osaka, Japan, 11-16th December 2016.

120. "Error Analysis of SaHiT - a Statistical Sanskrit-Hindi Translator", Rajneesh Kumar Pandey, Girish Nath Jha, 2016, In the Procs of "International Conference on Knowledge-Based and Intelligent Information and Engineering Systems", KES-2016, 5-7 September 2016, York, UK, Procedia Computer Science 96 (Elsevier) 495 – 501, 2016 (Scopus)

119. "A Pāniniān Framework for Analyzing Case Marker Errors in English-Urdu Machine Translation", Sharmin Muzaffar, Pitambar Behera & Girish Nath Jha, In the Procs of International Conference on Knowledge-Based and Intelligent Information and Engineering Systems, KES-2016, 5-7 September 2016, York, UK, Procedia Computer Science 96 (Elsevier), (1877-0509), 96, pp. 502-510, 2016. (Scopus)

118. "Issues and Challenges in Annotating Urdu Action Verbs on the IMAGACT4ALL Platform", Sharmin Muzaffar, Pitambar Behera & Girish Nath Jha, In Procs of LREC-2016 (ISBN: 978-2-9517408-8-4), Portoroz, Slovenia, pp. 1446-1451, 23-28 May, 2016 (Scopus)

117. "Training & Evaluation of POS Taggers in Indo-Aryan Languages: A Case of Hindi, Odia and Bhojpuri", Atul Kumar Ojha, Pitambar Behera, Srishti Singh and Girish Nath Jha, procs of 7<sup>th</sup> LTC, Poznan, Poland, 27-29 Dec 2015

116. "Issues and Challenges in Developing Statistical PoS Taggers for Sambalpuri, Pitambar Behera, Atul Kumar Ojha and Girish Nath Jha, Procs of 7<sup>th</sup> LTC, Poznan, Poland, 27-29 Dec 2015, Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics), Springer, 2018 (Scopus)

115. "The TypeCraft Natural Language Database: Annotating and Incorporating Urdu", Pitambar Behera, Sharmin Muzaffar, Girish Nath Jha, Lars Hellan and Dorothee Beermann, in the Procs of regiICON-2015, "Indian Journal of Science & Technology" (Scopus)

114. "Statistical Tagger for Bhojpuri (employing Support Vector Machine)", Srishti Singh, Girish Nath Jha, International Conference on Advances in Computing, Communications and Informatics (ICACCI), 2015, Pages: 1524 - 1529, DOI: 10.1109/ICACCI.2015.7275829 (Scopus)

- 113. "Sanskrit manuscripts digitization and beyond : the current status in India", presented at WAVES-2014, Maharishi University of Management, Fairfield, Iowa, USA, Aug 3, 2014
- 112. "Issues in mapping of Sanskrit-Hindi verb forms", Nripendra Kumar Pathak, Girish Nath Jha, Procs of the "2nd Workshop on Indian Language Data Resource and Evaluation" held under LREC at Reykjavik, Iceland, 26-31 May 2014
- 111. "*Evaluation of Hindi-English MT Systems*", Atul Kr Ojha, Akanskha Bansal, Sumedh Hadke, Girish Nath Jha, Procs of the "2nd Workshop on Indian Language Data Resource and Evaluation" held under LREC at Reykjavik, Iceland, 26-31 May 2014
- 110. "Issues in chunking parallel corpora: mapping Hindi-English verb group in ILCI", Esha Banerjee, Akansha Bansal, Girish Nath Jha, Procs of the "2nd Workshop on Indian Language Data Resource and Evaluation" held under LREC at Reykjavik, Iceland, 26-31 May 2014
- 109. "Mapping Indian Languages onto the IMAGACT Visual Ontology of Action", poster by Massimo Moneglia, Susan W. Brown, Aniruddha Kar, Anand Kumar, Atul Kumar Ojha, Heliana Mello, Niharika Mishra, Girish Nath Jha, Bhaskar Ray, Annu Sharma, Procs of the "2nd Workshop on Indian Language Data Resource and Evaluation" held under LREC at Reykjavik, Iceland, 26-31 May 2014
- 108. "Challenges in Indian Language Transliteration: a case of Devanagari, Bangla and Manipuri", poster by K Kabi Khanganba and Girish Nath Jha, Procs of the "2nd Workshop on Indian Language Data Resource and Evaluation" held under LREC at Reykjavik, Iceland, 26-31 May 2014
- 107. "Indian languages on the TypeCraft platform the case of Hindi and Odia", poster by Girish Nath Jha, Lars Hellan, Dorothee Beermann, Srishti Singh, Pitambar Behera and Esha Banerjee, Procs of the "2nd Workshop on Indian Language Data Resource and Evaluation" held under LREC at Reykjavik, Iceland, 26-31 May 2014
- 106. Semantic relations in Panini's karaka system: challenges for computer processing, Explorative Workshop: by Jawaharlal Nehru University and University of Zurich on "Relationships of Possession: Linguistic, Literary, Philosophical and Legal Perspectives", 17-19 February 2014, JNU, New Delhi
- 105. Computer Processing of South Asian Languages the case of Sanskrit (presented by Sachin Kumar and Diwakar Mishra), in Special session on, "Recent Developments in Sanskrit Computational Linguistics", at the 30th Round Table of South Asian Language

Analysis, Department of Sanskrit Studies, School of Humanities, University of Hyderabad, 8th Feb, 2014

- 104. A Generic Search for Heritage Texts, Kumar Nripendra Pathak, Girish Nath Jha in Human Language Technologies as a Challenge for Computer Science and Linguistics (Procs of the 6th LTC), Zygmunt Vetulani & Hans Uszkoreit (ed), pp 504-508, Fundacja, Uniwersytetu im. A. Mickiewicza, Poznan, Poland, 2013
- 103. Linking and Referencing Multi-lingual corpora in Indian languages, Esha Banerjee, Shiv Kaushik, Pinkey Nainwani, Akanksha Bansal, Girish Nath Jha in Human Language Technologies as a Challenge for Computer Science and Linguistics (Procs of the 6th LTC), Zygmunt Vetulani & Hans Uszkoreit (ed), pp 65-68, Fundacja, Uniwersytetu im. A. Mickiewicza, Poznan, Poland, 2013
- 102. Corpora creation for Indian Language Technologies the ILCI project, Akanksha Bansal, Esha Banerjee, Girish Nath Jha in Human Language Technologies as a Challenge for Computer Science and Linguistics (Procs of the 6th LTC), Zygmunt Vetulani & Hans Uszkoreit (ed), pp 253-257, Fundacja, Uniwersytetu im. A. Mickiewicza, Poznan, Poland, 2013
- 101. Syllabification and stress assignment in phonetic Sanskrit text, Diwakar Mishra, Kalika Bali, Girish Nath Jha, 2013 International Conference Oriental COCOSDA held jointly with 2013 Conference on Asian Spoken Language Research and Evaluation (O-COCOSDA/CASLRE), Gurgaon, 2013, pp. 1-4, doi: 10.1109/ICSDA.2013.6709882. (Scopus)
- 100. Lexical Database System for Accessing India's Heritage Texts (With special reference to Ayurveda), with Baldev Ram Khandoliyan, published in "Lexicography and Dictionaries in the Information Age" (Selected papers from the "8th ASIALEX International Conference", Bali, Indonesia, 20-22 August 2013), edited by Deny A. Kwary, Nur Wulan and Lilla Musyahda, ISBN 978-602-7924-20-8, pp157-165
- 99. Annotating Sanskrit corpus adapting IL-POSTS, Girish Nath Jha, Madhav Gopal, Diwakar Mishra in Human Language Technology: Challenges for Computer Science and Linguistics (revised and selected papers from 4th LTC), pp 371-379, Zygmunt Vetulani (ed), LNCS, Springer Verlag, Germany, 2009 (Scopus)
- 98. "Digital libraries, electronic access and search for texts of Vedantic tradition" in the 21st International Congress of Vedanta, University of Massachusetts, Dartmouth, July 11-14, 2013

- 97. Anaphora Resolution in Sanskrit: Issues and Challenges, jointly with Madhav Gopal, presented in "*Sanskrit syntax and discourse structures*", international seminar organized by University of Paris Diderot, June 13-15, 2013
- 96. *Text Normalizer for Sanskrit*, jointly with Diwakar Mishra and Kalika Bali, in the Procs of "5th International Sanskrit Computational Linguistics Symposium", Malhar Kulkarni (ed), DK Printworld, Delhi, 2013
- 95. Using the ILCI Annotation Tool for POS Annotation: A Case of Hindi, Ritesh Kumar, Shiv Kaushik, Pinkey Nainwani, Esha Banerjee, Sumedh Hadke, Girish Nath Jha, International Journal of Computational Linguistics and Applications (IJCLA), VOL. 3, NO. 2, JUL-DEC 2012, PP. 93–104, guest editor: Yasunari Harada, Editor in-chief: Alexander Gelbukh, Bahri Publications, Delhi, ISSN: 0976-0962.
- 94. Arya vs Dravida and linguistc foundations of Indian languages, International WAVES Conference 2012, University of Massachusetts, Dartmouth, MA, USA, July14, 2012.
- 93. Developing Sanskrit Corpora Based on the National Standard: Issues and Challenges, with

Madhav Gopal, Procs of "Workshop on Indian Language Data: Resource and Evaluation", Language Resource Evaluation Conference (LREC), Istanbul, e-publication by European Language Resource Association (ELRA), May, 2012

- 92. Challenges in Developing Named Entity Recognition System for Sanskrit, with Sachin Kumar and Sobha Lalitha Devi, Procs of "Workshop on Indian Language Data: Resource and Evaluation", Language Resource Evaluation Conference (LREC), Istanbul, e-publication by European Language Resource Association (ELRA), May, 2012
- 91. *Grapheme-to-Phoneme converter for Sanskrit Speech Synthesis, with* Diwakar Mishra and Kalika Bali, Procs of "Workshop on Indian Language Data: Resource and Evaluation", Language Resource Evaluation Conference (LREC), Istanbul, e-publication by European Language Resource Association (ELRA), May, 2012
- 90. *Text encoding and search for Ayurvedic texts: an interconnected lexical database*, Procs of the workshop on "Adaptation of language resources and tools for processing cultural heritage objects", Language Resource Evaluation Conference (LREC), Istanbul, e-publication by European Language Resource Association (ELRA), May, 2012
- 89. *Transfer grammar for Sanskrit-Hindi Machine Translation*, co-author with Kumar Nripendra Pathak, World Sanskrit Conference, Delhi, Jan5-10, 2012

- 88. *Strategies for Anaphora Handling in Panchatantra*, co-author with Madhav Gopal, World Sanskrit Conference, Delhi, Jan5-10, 2012
- 87. *Theory of Anaphora resolution in traditional Sanskrit texts*, co-author with Diwakar Mishra, World Sanskrit Conference, Delhi, Jan5-10, 2012
- 86. *Standard Text encoding scheme and search for Ayurvedic texts*, co-author with Archana Tiwari, World Sanskrit Conference, Delhi, Jan5-10, 2012
- 85. Strategies for Semantic representation of Karma Karaka (karturipsitatamam karmam), coauthor with Manji Bhadra, World Sanskrit Conference, Delhi, Jan5-10, 2012
- 84. Knowledgebase for Sanskrit-Hindi machine Translation divergences, co-author with Diwakar Mani, World Sanskrit Conference, Delhi, Jan5-10, 2012
- 83. Resolving Anaphors in Sanskrit, Madhav Gopal, Girish Nath Jha, Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics) (2014) 8387 LNAI 83-92 (Scopus)
- 82. Creating Multilingual Parallel Corpora in Indian Languages, Co-author with Narayan Choudhary, Procs of 5th LTC, Poznan, Poland, Nov 25-27, 2011, Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics) (2014) 8387 LNAI 527-537 (Scopus)
- 81. Issues in annotating less resourced languages the case of Hindi from Indian Languages Corpora Initiative (co-author with Pinkey Nainwani, Esha Banerjee, Shiv Kaushik), Procs of 5th LTC, Poznan, Poland, Nov 25-27, 2011
- 80. A Rule based Method for the Identification of TAM features in a PoS Tagged Corpus, Coauthor with Narayan Choudhary, Pramod Pandey, Procs of 5th LTC, Poznan, Poland, Nov 25-27, 2011, Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics) (2014) 8387 LNAI 178-188 (Scopus)
- 79. "Origin and Development of Indian Languages and Linguistic Area", in Perspectives on the Origin of Indian Civilizations (Angela Marcantonio, Girish Nath Jha ed.), DK Printworld, Delhi, 2012

- "Paninian System of Languages: A Computational Paradigm", Invited paper in the "Vedanta & Science Symposium", Center for Indic Studies, University of Massachusetts, Dartmouth, July6, 2011
- 77. Challenges in NP-case mapping in Sanskrit-Hindi machine translation, Kumar Nripendra Pathak, Girish Nath Jha, in "Information Systems for Indian Languages: International Conference, ICISIL", Communications and Computer and Information Science (vol 139) Springer, ISSN 1865-0929, pp 289-293, 2011 (Scopus)
- 76. Challenges in developing a TTS for Sanskrit, Diwakar Mishra, Girish Nath Jha, Kalika Bali, in "Information Systems for Indian Languages: International Conference, ICISIL", Communications and Computer and Information Science (vol139), Springer, ISSN 1865-0929, pp 228-231, 2011 (Scopus)
- 75. *Tagging Sanskrit using BIS POS Tagset*, Madhav Gopal, Girish Nath Jha, in "Information Systems for Indian Languages: International Conference, ICISIL", Communications and Computer and Information Science (vol 139), Springer, ISSN 1865-0929, pp 191-194, 2011 (Scopus)
- 74. *Sanskrit verb argument valence: a computational analysis*, co-author with Subhash Chandra, Procs of the O-COCOSDA 2010, Kathmandu
- 73. Translating politeness across cultures: case of Hindi and English, Ritesh Kumar, Girish Nath Jha, ICIC '10: Proceedings of the 3rd international conference on Intercultural collaboration August 2010 Pages 175–178 <u>https://doi.org/10.1145/1841853.1841880</u> (Scopus)
- 72. SaHiT Sanskrit-Hindi Translator, in the 8th International conference of the WAVES, at Trinidad & Tobago, West Indies, August 5, 2010
- 71. *Text Encoding and Search for Sanskrit* at the "19th International Vedanta Congress", organized by Center of Indic Studies, University of Massachusetts, Dartmouth, July 30, 2010
- 70. SATIAIT progress report and translation of Rasaayana-saara, presented at the "Symposium on Science and Technology in Ancient Indian Text", Center of Indic Studies, University of Massachusetts, Dartmouth, USA, July 26, 2010
- 69. *The TDIL program and the Indian Language Corpora Initiative (ILCI)*, Proceedings of the 7th International Conference on Language Resources and Evaluation, LREC 2010 (2010) 982-985 (Scopus)

- 68. Multilingual Multimodal Resources of the future: challenges and opportunities for India (with Ritu Nidhi), abstract accepted for W3C international conference titled "World Wide Web: Technology, Standards and Internationalization Conference", May 6-7, 2010, New Delhi
- 67. Online Multilingual Amarakosha: the relational lexical database (with R. Chandrashekar, Umesh Kumar Singh, Vibhuti Nath Jha, Satyendra Pandey, Surjit Kumar Singh, Mukesh Mishra), Procs of the 5th Global Wordnet Conference, IIT Mumbai, Feb1, 2010 (Scopus)
- 66. Annotating Sanskrit corpus adapting IL-POSTS (with Madhav Gopal and Diwakar Mishra), published in the Procs of the 4th International Language technology Conference, Poznan, Poland, Nov 2009
- 65. *Discourse Anaphora and Resolution Techniques in Sanskrit*, with Sobha L, Diwakar Mishra, accepted as poster paper at the 7th Discourse Anaphora and Ambiguity Resolution Colloquium (DAARC-2009), held in Goa, India, Nov 5-6, 2009
- 64. *Linguistic pedagogy and e-learning: the case for Sanskrit*, co-author with Prachi Sinha & Priti Bhowmik, accepted for "Contemporary Themes and Issues in Language Pedagogy" vol2, Vaishna Narang ed, 2009
- 63. Automatic Indexing System for texts of Indian Intellectual Tradition, with Diwakar Mani, Umesh Kumar Singh, Prachi Sinha, presented at 18th International Vedanta Congress, University of Massachusetts, Dartmouth, July16-19,2009
- 62. "Sanskrit teaching: Multimedia methodology and tools", Prachi Sinha, Girish Nath Jha, in LANGUAGE IN INDIA, vol 9:11, November 2009, ISSN 1930-2940 (Procs of "All-India Conference on Multimedia Enhanced Language Teaching MELT 2009" edited by L. Ramamoorthy and J. R. Nirmala)
- 61. Sanskrit Analysis System (SAS), Girish Nath Jha, Manji Bhadra, Surjit Singh, Sachin Kumar, Subhash, Muktanand Agarwal, R Chandrashekhar, Sudhir Mishra, Girish Nath Jha, LNCS (Vol 5406), Springer, pp116-133, 2009 (Scopus)

60. An algorithm for morpho-phonemic processing of Sanskrit, Sachin Kumar, Diwakar Mishra, Girish Nath Jha, presented by Sachin Kumar & Diwakar Mishra at 3rd National Conference on Methods and Models in Computing, School of Computer and Systems Sciences, JNU, Dec 9, 2008

- 59. Architecture of dyna-content web-applications, Girish Nath Jha, invited paper at "Requirement Workshop on Assessment Needs of Website of Animal Sciences, Dairy Science, Education and Research along with Transfer of Technology under NAIP funded AGROWEB Sub-Project (Component-I)", National Dairy Research Institute, Karnal, Oct 3, 2008
- 58. Anaphors in Sanskrit, with Sobha L, Diwakar Mishra, Surjit K Singh, Praveen Pralayankar, Johansson, C. (Ed.) Procs of the Second Workshop on Anaphora Resolution (2008), ISSN 1736-6305 Vol. 2, Cambridge Scholars Publishing, 2007
- 57. Semantic processing in Panini's karaka system, Girish N Jha, Sudhir K Mishra, LNCS Vol 5402, Springer Berlin / Heidelberg, ISBN 978-3-642-00154-3 pp 239-252, 2009 (Scopus)
- 56. Bhaarat men bhasha praudyogiki: ek sarvekshan, Girish N Jha, Diwakar Mani, Diwakar Mishra, Gaveshana, Kendriya Hindi Sansthana, Agra, vol 90, 2008
- 55. A Common Parts-of-Speech Tagset Framework for Indian Languages, Sankaran Baskaran, Kalika Bali, Tanmoy Bhattacharya, Pushpak Bhattacharyya, Monojit Choudhury, Girish Nath Jha, Rajendran S., Saravanan K., Sobha L., KVS Subbarao, Proceedings of the 6th International Conference on Language Resources and Evaluation, LREC 2008 (2008) 1331-1337 (Scopus)
- 54. *Issues in computer processing of languages a case for Sanskrit*, presented at the International Symposium on Brain Cognition & Behavior, jointly organized by Center for Linguistics, SLL&CS, J.N.U. and Utrecht University (UU), Netherlands, March14-15, 2008
- 53. Designing a Common POS-Tagset Framework for Indian Languages (co-author with Sankaran Baskaran, Kalika Bali, Tanmoy Bhattacharya, Pushpak Bhattacharyya, Rajendran S, Saravanan K, Sobha L and Subbarao K V), presented (by Kalika Bali) at International Joint Conference on Natural Language Processing (VI workshop on Asian Language Resources), IIIT, Hyderabad, Jan 11, 2008
- 52. Morphological Analyzer for Great Andamanese Verbs: Implementing a Concatenative Template, co-author with Narayan Choudhary and Anvita Abbi, Vishwabharat (April 2007 January 2008 Journal) 113-118. TDIL, New Delhi,
- 51. Survey of e-content in virtual media: the case of Sanskrit, presented in a national seminar on teaching through e-learning, Central Institute of Higher Tibetan Studies, Sarnath, Dec29-30,2007

- 50. Software localization me bhasha sambandhi samasyaem, in Gaveshana, Kendriya Hindi Sansthan, Agra, vol88,2007
- 49. Sanskrit Computational Linguistics, presented at a national seminar on "Relevance of Sanskrit for science and technology" organized by Gandhi Memorial National College, Ambala, Dec 8, 2007
- 48. Inflectional Morphology Analyzer for Sanskrit, Girish Nath Jha, Muktanand Agrawal, Subash, Sudhir Mishra, Diwakar Mani, Diwakar Mishra, Manji Bhadra, Surjit K. Singh, LNCS vol 5402, Springer Berlin / Heidelberg, ISBN 978-3-642-00154-3, pp 219-238, 2009 (Scopus)
- 47. *Sanskrit e-learning: Grammar-Lexicon*, paper presented at "National Seminar on Teaching of Sanskrit through e-learning" organized by NCERT, Aug30, 2007.
- 46. *Optimality re-investigation of Hindi stress system*, Rainbow of Linguistics (Vol I, 2007, pp 72-78), T. Media Publication, 33, College Row, Kolkata-700009
- 45. *Indian Theories of Knowledge compared with Western Theories and Artificial Intelligence*, appeared in Creative Forum journal of literary and creative writings (pp-63-76), Vol. 20, No.1, Jan-July2007, Bahri Publications(2006), New Delhi

44. *Localization (l10n) of web-applications: strategies for Hindi/Sanskrit*, presented at the Workshop on Localization of e-Governance Applications: Issues & Standards, February 21-22, 2007, Le Meridien, New Delhi, organized by MAIT and MCIT

43. Knowledge modeling in India: an Artificial Intelligence perspective, accepted for the Indology Journal, International Indology Conference, Goa, Feb8-10, 2007

- 42. A Natural Language Interface for Databases, procs of National Conference in Methods and Models in Computing [NCM2C 2006], School of Computer & Systems Sciences, J.N.U., Dec 2006, Macmillan India Ltd., Delhi, pp75-91
- 41. Proposing a System for Identifying Divergent Sentences in Russian-English Machine Translation, co-author with Ainura Asamidinova, procs. of National Conference in Methods and Models in Computing [NCM2C 2006], School of Computer & Systems Sciences, J.N.U., Dec 2006, Macmillan India Ltd., Delhi, pp161-171

- 40. Linguistic and cultural challenges for software localization (110n): the case of *Hindi/Sanskrit*, presented at a national seminar on Technology development for content creation and Localization in Indian languages, organized by CSTT, MHRD, Govt. of India and RKGIT, Gaziabad at RKG Institute of Technology, Gaziabad, Dec 1, 2006
- 39. *Hierarchical vs. flat tagsets*, presented at Microsoft Research India, Bangalore, 28th October, 2006
- 38. *Computer applications for Lexicography*, at Central Hindi Institute, Agra, in the workshop on "Hindi dialect dictionary", Oct 16,2006
- 37. *Problems in Hindi Computing*, at Central Hindi Institute, Agra, in the workshop on "Hindi dialect dictionary", Oct 16,2006
- 36. *Strategies for metrical analysis of Sanskrit text*, co-author with Diwakar Mishra , procs of National Seminar on Perspectives in Linguistics, Kashmir University, Srinagar, 2006
- 35. *Issues in Sandhi Processing of Sanskrit* co-author with Sachin Kumar, presented by Sachin at 28th All India Conference of Linguists, Department of Linguistics, BHU, 02-04 Nov 2006
- 34. Karaka based Sentence validation System, co-author with S.K. Mishra, presented by S.K.Mishra at 28th All India Conference of Linguists, Department of Linguistics, BHU, 02-04 Nov 2006
- 33. *Sanskrit language pedagogy: An e-learning approach*, co-author with Priti Bhowmik, presented by Girish N Jha at 28th All India Conference of Linguists, Department of Linguistics, BHU, 02-04 Nov 2006
- 32. Online indexing system for Ashtadhyayi, co-author with Diwakar Mishra , presented by Diwakar Mishra at 28th All India Conference of Linguists, Department of Linguistics, BHU, 02-04 Nov 2006
- 31. Verb phrase Analyzer of Great Andamanese, co-author with Narayan Kumar Chaudhary, Anvita Abbi, presented by Narayan at 28th All India Conference of Linguists, Department of Linguistics, BHU, 02-04 Nov 2006

- 30. *Strategies for Identifying and Processing Derived Nouns in Sanskrit*, co-author with Surjit Kumar Singh, presented by Surjit at 28th All India Conference of Linguists, Department of Linguistics, BHU, 02-04 Nov 2006
- 29. Translating Russian Impersonal Constructions into English: A Study by MT Errors, coauthor with Ainura Asamidinova, P.K. Pandey, abstract published by the 28th All India Conference of Linguists, Department of Linguistics, BHU, 02-04 Nov 2006
- 28. Sanskrit Subanta Recognizer and Analyzer for Machine Translation, co-author with Subash, presented by Subash at 28th All India Conference of Linguists, Department of Linguistics, BHU, 02-04 Nov 2006
- 27. Online Indexing of Ādiparva of Mahābhārata, co-author with Diwakar Mani, presented by Diwakar Mani at 28th All India Conference of Linguists, Department of Linguistics, BHU, 02-04 Nov 2006
- 26. Regional and Linguistic perspectives on Internationalization of Web: The case of Hindi/Sanskrit, presented at *Summit on Internationalization*, organized by W3C and MAIT, at hotel Grand Ashoka, Bangalore, August 24-25, 2006
- 25. Towards a Computational Analysis System for Sanskrit, invited paper at The First National Symposium on Modeling and Shallow Parsing of Indian Languages (MSPIL-06) 31st March 4th April, 2006 at IIT Bombay, appeared in the procs of the symposium
- 24. *Computational lexicography and Amarakosha : an online RDBMS approach*, National Seminar of Language and Interface, Dept. of Linguistics, Delhi University, March 25, 2006
- 23. Language Technology in India: A survey: November 2005 Issue of C.S.I. magazine
- 22. A Paninian Sandhi analyzer for Sanskrit, co-author with Sachin(presented by Sachin at Platinum Jubilee International Conference, L.S.I. at Hyderabad University, Hyderabad 6-8 dec,2005)

21. *Morphological analysis of nominal inflections in Sanskrit*, co-author with Subash (presented by Subash at Platinum Jubilee International Conference, L.S.I. at Hyderabad University, Hyderabad 6-8 dec, 2005)

20. Karaka analysis of complicated Sanskrit sentences, co-author with Sudhir K Mishra (presented by Sudhir K Mishra at Platinum Jubilee International Conference, L.S.I. at Hyderabad University, Hyderabad 6-8 dec, 2005)

- 19. Developing a Sanskrit Analysis System for Machine Translation, presented at the National Seminar on Translation Today: state and issues, Deptt. of Linguistics, University of Kerala, Trivandrum, August 23-25, 2005
- Socio-psychological motivations for Maithili-Hindi code switching, "Words in Asian Cultural Context", proc. of 4<sup>th</sup> Asialex Conference (pp401-405), National University of Singapore
- 17. *Information technology applications for Sanskrit lexicography: case of Amarakosha*, procs of the AsiaLex conference at National University of Singapore, Singapore, June1-3, 2005
- 16. *Devanagari on computer: problems and current status*, presented *at the* Workshop on Hindi support and compatibility for computers at JNU, New Delhi, March31-April1, 2005
- 15. Identifying verb inflections in Sanskrit morphology, (with Sudhir Mishra) Procs of SIMPLE'04, IIT Kharagpur, 2005
- 14. *IT initiatives for Sanskrit in India*, accepted for the Sanskrit conference at Bangkok, Thailand, June 23-36, 2005
- 13. *Astadhyayi Online*, (with Prof. G.V.Singh), Procs of International Conference on Speech and Language Technology, New Delhi, Nov,2004, Tata McGraw Hill, 2004
- 12. *A karaka analyzer for Sanskrit* (with Sudhir Mishra), Procs of International Conference on Speech and Language Technology, New Delhi, Nov,2004, Tata McGraw Hill, 2004
- 11. *Generating nominal inflectional morphology in Sanskrit*, SIMPLE 04, IIT-Kharagpur Lecture Compendium, Shyama Printing Works, Kharagpur, WB, March, 2004
- 10. Optimality re-investigation of Hindi stress system, presented at 30th International conference on Systemic Functional Linguistics, Lucknow, 2003
- 9. LexFace: a lexical interface for English-Hindi translation for share-market, South Asian Language Review, Vol. No. XI. P 52-59, *New Delhi*
- 8. The system of Panini, Language in India, volume4:2 February 2004

- 7. Current trends in Indian languages technology Language In India, volume 3:12 December 2003
- 6. Jason lives ! The innate horror !! Language in India, volume 3:10 October 2003
- 5. A Prolog Analyzer/Generator for Sanskrit Subanta Padas, *Language in India, volume 3:11* November 2003
- 4. *English-SQL interface for databases* (with Jerry Morgan, head of the dept of linguistics at U of I, Urbana-Champaign) presented at an international conference on SALA held at University of Illinois in July 1999
- 3. Lexical conceptual structure and domain based machine translation system (with Kapil Kapoor, G.V.Singh) presented at a symposium on Machine Aids for translation & communication, JNU, April11-12 1996)
- 2. Proposing a computational system for Nominal Inflectional Morphology in Sanskrit (Proc. of national seminar on "Reorganization of Sanskrit Shastras with a view to prepare their computational database", January, 1995)
- 1. Indian theory of knowledge: an AI perspective (proc. of national seminar on "Inference Mechanisms in Shastras and Computer Science", Academy of Sanskrit Research, Malcote, Mysore, April, 1994)

## **Books** (12)

12. Vedanta Science and Technology – a multidisciplinary approach (eds Girish Nath Jha, Bal Ram Singh, Sukalyan Sengupta), Procs of the 22nd International Congress of Vedanta (22Vedanta), 27-30 Dec 2015, JNU, DK Printworld, Delhi, 2020

11. *Veda as global heritage: Scientific perspectives* (eds, Girish Nath Jha, Sudhir Kumar Arya, Abhijit Dixit, Atul Kr Ojha), Procs of the International Veda Conference on "Veda as Global Heritage: Scientific Perspectives", JNU, 15-18 Dec 2016, Vidyanidhi Prakashan, Delhi, 2019

10. Vedanta anvikshiki, Science and Philosophy in contemporary perspective (eds. Girish Nath Jha, Sukalyan Sengupta and Blaram Singh), DK Printworld, Delhi, 2017

9. *Perspectives on the Origin of Indian Civilizations* (eds Angela Marcantonio, Girish Nath Jha), DK Printworld, Delhi, 2012

8. *Modern Perspectives on Vedanta* (ed jointly with Bal Ram Singh, R P Singh, Diwakar Mishra), DK Printworld, Delhi, 2012

7. *Computational Semantics for Sanskrit: The Case of Amarakosha Homonyms* (co-author with Mukesh Kumar Mishra), Lambert Academic Publisher, Germany, 2012

6. *Science and Technology in Ancient Indian Texts* (ed. jointly with Bal Ram Singh, Umesh Kumar Singh and Diwakar Mishra), DK Printworld, Delhi, 2011

5. *Paninian Morphophonemics: A Computational Approach to Analysis and Interpretation* (coauthor with Diwakar Mishra), Lambert Academic Publisher, Germany, 2011

4. Primary Derivation in Sanskrit: A Computational Approach to Analysis of Kridanta (coauthor with Surjit Kumar Singh), Lambert Academic Publisher, Germany, 2011

3. <u>Computer Processing of Sanskrit Nominal Inflections - Methods and Implementation</u>", (with Subhash Chandra), Cambridge Scholar Publishing, Feb 2011, UK (ISBN13: 978-1-4438-2684-6 Isbn: 1-4438-2684-7)

2. <u>Sanskrit Computational Linguistics</u> (ed.), Procs of the 4th International Sanskrit Computational Linguistics Symposium, Springer Verlag, Germany, 2010 (ISBN 978-3-642-17527-5)

1. Sanganak-janit vyavaharik Sanskrit dhatu-rupavali, Vidyanidhi Prakashan, Delhi, 2007

### **Contributions to Books**

- 1. *Maithili bhasha* (with Dr Sangeeta Kumari), chapter in the book titled *Bharatiya Bhasha Parichay*, Kendriya Hindi Nideshalay, Delhi, 2010
- 2. *Hindi-English Dictionary of Common Words (Vyavaharik Angrezi-Hindi kosh)*, (edit. board), Central Hindi Directorate. Min. of Human Resource Development, 2006
- 3. *Early Monsoon*, appeared in "The Splendor of Sunrise" (Jessica Rapisarda ed.), 2001, International library of poetry, Watermark press, One Poetry Plaza, Owings Mills, MD 21117, USA
- 4. *Bhashavijnana paribhasha-kosha*, contributed computational linguistics definitions in this volume published by C.H.D., Edn. deptt. of Min. of HRD, 1999

### **Reviewer for Journals**

- Language Resource Evaluation (LRE)
- Transactions on Asian Language Information Processing (TALIP)

#### **Membership of Committees**

- 1. Member of Technical Advisory Committee (TAC), Social Sciences Division, Indian Statistical Institute, Kolkata (2020-22)
- 2. Member of the Executive Council, Mahatma Gandhi Antarrashtriya Hindi University, Wardha, Dec 30, 2020 -
- 3. Member, Project Review and Management Committee (PRMC), SSMT, Principal Scientific Advisor, Govt. of India, 2020-
- 4. Member, Advisory Committee, Adikavi Sarla Das Chair of Odia Studies, JNU 2018-
- 5. Visitor's Nominee, Rajasthan Sanskrit University, Jaipur (2019-2021)
- 6. Member, Committee for Foreign and Indian Language Interpreters, MHRD, 2018-
- 7. Visitor's Nominee, Central University of South Bihar, Gaya (2018-21)
- 8. Member, Advisory Committee, Bharat Vani, CIIL, Mysore 2017-
- 9. Expert/Advisory Committee of Bharatvani Project, CIIL Mysore (2015-)
- 10. Nominated member of Board of Post Graduate Studies (BPGS) of Sanskrit, Tripura University since 2016
- 11. Member of Association for Computing Machinery (ACM) since 2015
- 12. Nominated BOS member, Dept of Sanskrit of Kanya Maha Vidyalaya, Jalandhar since 2015
- 13. Nominated to the Academic Advisory Council, Center for Indic Studies, University of Massachusetts, Dartmouth, USA since 2014
- 14. Nominated member of Internal Quality Assurance Committee (IQAC) of Shri Lal Bahadur Shastri Rashtriya Sanskrit Vidyapeeth (SLBSRSV), New Delhi, 2014
- 15. Nominated member of Under Graduate Board of Studies (UG-BOS) in the BPS Womens' University, Sonepat, Haryana (2014-2016)
- 16. Member of Association for Computational Linguistics (ACL) since 2012
- 17. Nominated to the Board of Directors (BoD) of World Association for Vedic Studies (WAVES), USA, 2012 onwards
- 18. Nominated a member of the Expert Committee on Linguistic Resources and Language Technology Standards by Ministry of Communications & Information Technology, Department of Information Technology, Technology development for Indian Languages (TDIL) in 2012
- 19. Nominated member of the Project Review Steering Group (PRSG) of the project *Establishment of Indian Language Technology Proliferation & Deployment Centre* by Ministry of Communications & Information Technology, Department of Information Technology, Technology development for Indian Languages (TDIL) in 2012
- 20. Nominated as *Institutional member of the Steering Committee of FLaReNet*, European Commission project, Pisa, Italy, Oct 2010 onwards
- 21. Nominated as permanent member in the Expert Committee on CLDR, by the Ministry of Communications and Information Technology (MCIT), Govt. of India
- 22. Nominated to the *Indian Language Technologies and Products Sectional Committee* (*LITD 20*) of Bureau of Indian Standards
- 23. Nominated member of the *PRSG for Speech Technology projects* by the Technology Development for Indian Languages (TDIL) Programme of the Ministry of Communications and Information Technology (MCIT), Govt. of India

- 24. Served as member of the Working Group on Technology Development for Indian Languages (TDIL) Programme of the Ministry of Communications and Information Technology (MCIT), Govt. of India, 2007-2009
- 25. Nominated member of the *Working Group on Localization of Applications & Language Technology Standards*, as identified under the National e-Governance Program (NeGP) of Govt. of India
- 26. Nominated member of *Expert group on Computational Linguistics* by Manufacturer's Association on Information Technology (MAIT) and Ministry of Communications and Information Technology (MCIT), Govt. of India
- 27. Member of *Managing Committee of Chinmaya Vidyalaya*, Vasant Vihar, New Delhi (till 2014)

### **Organized Seminar/Workshops**

- 1. 1st Online International Webinar on "Academia Industry Interface for Indian Language Technology Ai3LT", July 20, 2020 (12-2pm)
- 2. 1st Online National Workshop on "Digitization and Development of E-resources for Sanskrit", May 27-31, 2020 (jointly organized by JNU and DU through online mode)
- 3. "5th Workshop on Indian Language Data: Resource & Evaluation" (ONLINE), May 24, 2020, Marseille, France under Language Resource Evaluation Conference (LREC) organized by European Language Resource Evaluation (ELRA)
- 4. *"4th Workshop on Indian Language Data: Resource & Evaluation"*, May 12, 2018, Miyazaki, Japan under Language Resource Evaluation Conference (LREC) organized by European Language Resource Evaluation (ELRA)
- 5. "International Veda Conference", JNU, New Delhi, Dec15-18, 2016
- 6. *"3rd Workshop on Indian Language Data: Resource & Evaluation"*, May 24, 2016, Portoroz, Slovenia under Language Resource Evaluation Conference (LREC) organized by European Language Resource Evaluation (ELRA)
- 7. "22nd International Congress of Vedanta", JNU, New Delhi, Dec 27-30, 2015
- 8. "Workshop on Sharada script" in collaboration with Millennium India Education Foundation (MIEF) at the Special Center for Sanskrit Studies, 16-18 Oct, 2015
- 9. "2nd International Workshop on Indian Language Data: Resource and Evaluation (WILDRE-2)", Reykjavik, Iceland, May 26, 2014 under Language Resource Evaluation Conference (LREC) organized by European Language Resource Evaluation (ELRA)
- 10. "Workshop on Sharada script" in collaboration with Millennium India Education Foundation (MIEF) at the Special Center for Sanskrit Studies, Nov 8-10, 2013
- 11. "Workshop on Sharada script" in collaboration with Millennium India Education Foundation (MIEF) at the Special Center for Sanskrit Studies, Feb 18-20, 2014
- 12. "Workshop on Indian Language Technology and English-Urdu Machine Translation" jointly with Microsoft, USA on at Special Center for Sanskrit Studies, JNU, 26-27 July, 2012
- 13. "National Workshop on BIS Annotation Scheme for Indian Languages" 8th ILCI workshop on POS annotation in collaboration with IIIT Hyderabad, at Hyderabad 21-23 July, 2012

- 14. "1st International Workshop on Indian Language Data: Resource and Evaluation (WILDRE-1)", Istanbul, May21, 2012 in collaboration with Microsoft Research India under Language Resource Evaluation Conference (LREC) organized by European Language Resource Evaluation (ELRA)
- 15. "Digitization of India's ancient scripts Brahmi, Sharada and Grantha" at Special Center for Sanskrit Studies, JNU on 20th March, 2012
- 16. "7th ILCI workshop on POS annotation", in collaboration with IIITM Kerala, organized at Trivandrum 9-10 March, 2012
- 17. "6th ILCI workshop on POS annotation", in collaboration with IIT Bombay organized at IIT Bombay 3-4 Jan, 2012
- 18. "20<sup>th</sup> International Congress of Vedanta" at Special Center for Sanskrit Studies, JNU, 28-31 December, 2011 19. "5<sup>th</sup> ILCI workshop on POS annotation", in collaboration with Utkal University,
- Bhubaneswar and ISI Kolkata at Utkal University, Bhubaneswar, 21-23 February, 2011
- 20. "4<sup>th</sup> International Sanskrit Computational Linguistics Symposium" at Special Center for Sanskrit Studies, JNU, 10-12 December, 2010
- 21. "E-learning and Multimedia for Education", at Special Center for Sanskrit Studies, JNU, November 3, 2010 (in collaboration with Communication & Information Services, JNU)
- 22. "4<sup>th</sup> ILCI workshop on POS annotation", in collaboration with Gujrat University, Ahmedabad, 28-30 September, 2010
- 23. "3<sup>rd</sup> ILCI workshop on multilingual parallel corpora building", in collaboration with IIITM-K Trivandrum at Trivandrum, April 9, 2010
- 24. "International Seminar on Science & Technology in Ancient Indian Texts (SATIAIT)", January 9-10, 2010 in collaboration with Center of Indic Studies, University of Massachusetts, Dartmouth, USA
- 25. "2<sup>nd</sup> ILCI workshop on multilingual parallel corpora building", in collaboration with Dravidian University at Kuppam, AP, 28-29 August, 2009
- 26. "1<sup>st</sup> ILCI workshop on multilingual parallel corpora building", in collaboration with Goa University at Goa, 25-26 March, 2009
- 27. "Meeting On Science & Technology In Ancient Sanskrit Texts" in collaboration with Prof. Bal Ram Singh, Director, Indic Studies, Univ Massachusetts, Dartmouth, at Dev Sanskriti Vishva Vidyalaya, Haridvar, 18 June 2009
- 28. "Workshop on Sanskrit E-Learning And Multimedia" for school teachers and students of south Delhi public schools, JNU, May 5,2009
- 29. "Panchatantra Painting/Sketching Event And Workshop For Children", 14 November, 2008
- 30. "Workshop on Hindi Support And Compatibility For Computers" with Hindi Unit of J.N.U., New Delhi, March 31-April 1, 2005

#### Membership of Program Committee/Scientific Committee

- 1. Language Resource & Evaluation Conference (LREC), 2020, Marseille, France
- 2. LT4All, Paris, 2019
- 3. Language Resource & Evaluation Conference (LREC), 2018, Miyazaki, Japan
- 4. Language Resource & Evaluation Conference (LREC), 2016, Portoroz, Slovenia

- 5. Language Resource & Evaluation Conference (LREC), 2016, Portoroz, Slovenia
- 6. ACM (Association for Computing Machinery) complimentary professional membership, 2015-16
- 7. 14th International Conference on Natural Language Processing (ICON-2014) to be held at Goa, India, Dec 18-21, 2014
- 8. 2nd Workshop on Indian Language Data: Resources & Evaluation (WILDRE) under LREC, 2014, Iceland
- 9. 2nd Workshop on Indian Language Data: Resources & Evaluation (WILDRE) under LREC, 2014, Iceland
- 10. Language Resource & Evaluation Conference (LREC), 2014, Iceland
- 11. Workshop on "Linguistics Olympiad and Popularizing Linguistics in Schools", ICON 2013, India
- 12. 6th Language Technology Conference (LTC), 2013, Poland
- 13. Forum for Information Retrieval and Evaluation (FIRE), 2013, India
- 14. 21st International Congress of Vedanta, 2013, USA
- 15. 1st Workshop on Indian Language Data: Resources & Evaluation (WILDRE) under LREC, 2012, Turkey
- 16. Language Resource & Evaluation Conference (LREC), 2012, Turkey
- 17. 5th International Sanskrit Computational Linguistics Symposium (ISCLS), 2012, India
- 18. 5th Language Technology Conference (LTC), 2011, Poland
- 19. 20th International Congress of Vedanta, 2011, India
- 20. 5th Global Wordnet Association (GWA), 2010, India
- 21. 4th International Sanskrit Computational Linguistics Symposium (ISCLS), 2010, India
- 22. 3rd International Sanskrit Computational Linguistics Symposium (ISCLS), 2009, India
- 23. 2nd International Sanskrit Computational Linguistics Symposium (ISCLS) , 2008, USA
- 24. 1st International Sanskrit Computational Linguistics Symposium (ISCLS), 2007, France

#### **Chairs for International Conferences**

- 1. Co-chair, WILDRE-V Workshop on Indian Language Data Resource & Evaluation, LREC, Marseille (ONLINE), France, May24, 2020
- 2. Co-Chair, 24th International Congress of Vedanta, JNU, 10-12 Jan 2020
- 3. Co-chair, WILDRE-IV Workshop on Indian Language Data Resource & Evaluation, LREC, Miyazaki, Japan, May 2018
- 4. Co-Chair, "Workshop on Language Technology for Less Resourced Languages (LT-LRL)" under LTC2017, November 2017, Poznan, Poland
- 5. General Track chair for the session on "Natural Language Processing" in KES-2017, France, Sept. 2017
- 6. General Chair, IVC, Dec 2016, JNU, India

- 7. Co-chair, WILDRE-III Workshop on Indian Language Data Resource & Evaluation, LREC, Portoroz, Slovenia, May 2016
- 8. General Track chair for the session on "Natural Language Processing" in KES-2016, UK, Sept. 2016
- 9. General Track chair for the session on "Natural Language Processing" in KES-2015, Singapore, Sept. 2015
- 10. Program Chair for the "Fourth International Symposium on Natural Language Processing (NLP'15)", Kochi, India, Aug 2015
- 11. Track chair for the "Natural Language Processing" in the 18th International Conference on Knowledge-Based and Intelligent Information & Engineering Systems (KES-2014), Poland
- 12. Co-chair, WILDRE-II Workshop on Indian Language Data Resource & Evaluation, LREC, Reykjavik, Iceland, May 2014
- 13. Chair for 2nd International Symposium on Natural Language Processing (NLP'13), India
- 14. Co-chair, WILDRE-I Workshop on Indian Language Data Resource & Evaluation, LREC, Istanbul, Turkey, May 2012

#### Sessions chaired/Panel discussion

- 1. Chaired a talk by Prof Shantanu Chaudhary, IIT Delhi, "*Optical Character Recognition* (*OCR*)", 1st International Conference on SOIL-Tech, JNU, New Delhi, 15-17 Feb 2019
- 2. Chaired a talk by Prof Massimo Moneglia, University of Florence (on Skype) *The IMAGACT of Ontology of Action: Principles, Development and Validation for its use in the Indian environment*, 1<sup>st</sup> International Conference on SOIL-Tech, JNU, New Delhi, 15 Feb, 2019
- 3. Chaired a talk by Georg Rehm, DFKI (German Center for Artificial Intelligence, Berlin) on Skype, *The Preparation, Impact and Future of the META-NET White Paper Series "Europe's Languages in the Digital Age*, 1<sup>st</sup> International Conference on SOIL-Tech, JNU, New Delhi, 15 Feb, 2019
- 4. Chaired a session titled "SPEECH 1: Speech Processing at the 7th LTC, Poznan, Poland, 27 Dec 2015
- 5. A panelist in the panel discussion on the topic "<u>The Name Of A Name (TNOAN)</u>" organized by Synthesis Talk, Mumbai, Nov 15, 2014.
- Chaired a talk titled "Multilingual projection" (delivered by Prof Pushpak Bhattacharya, IIT, Bombay) at a national seminar on "Towards standardizing Khasi for Computational Purposes", St Anthony's College, Shillong, Oct 28, 2014
- 7. Hosted a DD Bharati panel discussion on "Sharada Script" on June 16, 2014, New Delhi
- 8. Hosted a DD Bharati panel discussion on "Sharada script initiative at JNU" on June 17, 2014. New Delhi
- A panelist in the panel discussion in the workshop "Workshop on Linguistics Olympiad and Popularizing Linguistics in Schools (LOPLingS)", ICON, CDAC Noida, Dec 18, 2013
- 10. Chaired a session titled *TAN 1: Text Analysis 1* in the "6th Language & Technology Conference: Human Language Technologies as a Challenge for Computer Science and Linguistics", Dec 7, 2013, Poznan, Poland

- 11. A panelist in the Panel Discussion on *Language diversity and big data* coordinated by Hans Uszkoreit in the "6th Language & Technology Conference: Human Language Technologies as a Challenge for Computer Science and Linguistics", Dec 7, 2013, Poznan, Poland
- 12. A panelist in the Panel Discussion on *Challenges for Computational Linguistics* Coordinated by Dafydd Gibbon in the "6th Language & Technology Conference: Human Language Technologies as a Challenge for Computer Science and Linguistics", Dec 9, 2013, Poznan, Poland
- 13. A panelist in the Panel Discussion on "*Modern Perspective on the Origin of Indian Civilization*", in the 21st International Congress of Vedanta, University of Massachusetts, Dartmouth, July 11-14, 2013
- 14. Chaired in the session titled "SCIENCE & TECHNOLOGY IN ANCIENT INDIAN TEXTS" in the 21st International Congress of Vedanta, University of Massachusetts, Dartmouth, July 11-14, 2013
- 15. Chaired a keynote talk titled "*The Vedic Cure for the Loss of the Sense of Mystery in Western Science*" by Jerry Solfvin in the 21st International Congress of Vedanta, University of Massachusetts, Dartmouth, July 11-14, 2013
- 16. Chaired the session titled *Vedic culture and epics*, in the "International WAVES Conference 2012", University of Massachusetts, Dartmouth, MA, USA, July 14, 2012.
- 17. Chaired the session titled *Sanskrit Vyakarana and Linguistics*, in the "International WAVES Conference 2012", University of Massachusetts, Dartmouth, MA, USA, July 14, 2012.
- 18. Chaired a session in the seminar "Convergence of Science and Spirituality, Nov5, organized by ISSKCON, Sri Venkateswara College, South Campus Delhi University)
- 19. Chaired a session in the "Symposium on Origin of Indian Civilization", Center of Indic Studies, University of Massachusetts, Dartmouth, 8-9 July, 2011
- 20. Chaired a session in the "Vedanta and Science Symposium", Center of Indic Studies, University of Massachusetts, Dartmouth, 6-7 July, 2011
- 21. Chaired a session on "Civilizational Harmony" in the 8th International conference of the WAVES, at Trinidad & Tobago, West Indies, August 5, 2010
- 22. Chaired a plenary session in the "19th International Vedanta Congress", organized by Center of Indic Studies, University of Massachusetts, Dartmouth, July 29, 2010
- 23. Chaired a panel discussion on "Sanskrit its evolution and representation in the digital age", in the "19th International Vedanta Congress", organized by Center of Indic Studies, University of Massachusetts, Dartmouth, July 30, 2010
- 24. Chaired a session in "International Workshop on Referential Entity Resolution", organized by AU-KBC, MIT campus, Anna University, Chennai, Jan15-17,2008
- 25. Chaired a session on "Computational Linguistics" in the 28th All India Conference of Linguists, Department of Linguistics, BHU, on Nov 4, 2006
- 26. Chaired a session in the National Seminar on *Translation Today: state and issues*, Deptt. of Linguistics, University of Kerala, Trivandrum, August 23-25, 2005

#### **Workshops**

1. Participated in 4 day workshop on Samasa Tagging at Poornaprajna Vidyapeetha, Bangalore, May 16-19, 2009

- 2. Participated in two-day workshop on POS tagging for Sanskrit under the *Sanskrit Consortia*, organized by Dept. of Sanskrit Studies, University of Hyderabad, Hyderabad, June20-21, 2008
- 3. Participated in a series of workshops on editing *Hindi-English-Bodo Dictionary*, at Central Hindi Directorate during first quarter of 2008
- 4. International Workshop on Referential Entity Resolution, AU-KBC, MIT campus, Anna University, Chennai, Jan15-17,2008
- 5. *Review of speech technologies projects*, organized by TDIL, MCIT, CDAC- Mumbai, Dec 12, 2007
- 6. *Indic languages tagset design*, a one day workshop organized at Microsoft Research India Lab, Bangalore, Dec 2, 2007
- 7. *Indic languages tagset design*, a four day workshop organized at Microsoft Research India Lab, Bangalore, March15-18, 2007
- 8. *Indic languages tagset design*, a three day workshop organized at Microsoft Research India Lab, Bangalore, Jan19-21, 2007
- 9. *Indic languages tagset design*, a two day workshop organized at Microsoft Research India Lab, Bangalore, 2-3 Dec, 2006
- 10. *Indic languages tagset design*, a two day workshop organized at Microsoft Research India Lab, Bangalore, 28-29 Oct, 2006
- 11. *Government* @27/7: *overcoming contextual* & *cultural challenges*, South Asia egovernment summit organized at The Grand, Vasant Kunj, Oct 26, 2006 by DIT, GOI, CDAC, ASIA, OSPA forum

### Supervision of Research Students

- <u>M. Phil.</u> Supervised 40 (2 in progress)
- <u>Ph.D.</u> Supervised 30 (17 in progress 9 submitting in 2020)

### **Projects**

- 1. Machine Translation Evaluation Platform (MTEP), Innovation Grant from UPE-II, JNU, 2017-19
- <u>Shallow Parser Tools (SP Tools) for Indian Languages Maithili</u>, as Director, funded under the Technology Development for Indian Languages (TDIL) program by the Ministry of Communications and Information Technology (MCIT), March , 2012 onwards
- 3. <u>Indian Languages Corpora Initiative (ILCI)</u>-phase2, as Director and Consortium Leader, funded under the Technology Development for Indian Languages (TDIL) program by the Ministry of Communications and Information Technology (MCIT), 2012-16
- 4. <u>Indian Languages Corpora Initiative (ILCI)</u>-phase1, as Director and Consortium Leader, funded under the Technology Development for Indian Languages (TDIL) program by the Ministry of Communications and Information Technology (MCIT), 2009-12
- 5. <u>Developing Computational Tools For Sanskrit And Sanskrit-Hindi Machine Translation</u>, as Director, funded under the Technology Development for Indian Languages (TDIL)

program by the Ministry of Communications and Information Technology (MCIT), March 28, 2008-12

- 6. <u>Online Multilingual Amarakosa</u> : as Director: funded by JNU under UPOE program of UGC, 2005-07
- Database system for dialects of Hindi (2002-03): as co-director: Under my supervision, a team of software engineers developed a VB-SQL server software for dialect mapping of Hindi, sponsored and run by MGAHU, New Delhi
- 8. ALED (Active Living Everyday) at Human Kinetics, USA: a dynamic content, interactive website for fitness management 2002: project manager and lead programmer
- 9. Internationalization project of CollaTech e-solutions using JAVA resource bundles. Project involves making the source code compatible to the multilingual locales and languages, 2001
- 10. Database development project at the University of Illinois's Beckman Institute for Advanced Science and Technology 1998-99: database programmer
- 11. Analyzing schizophrenic speech at Dept. of Psychology, University Of Illinois, Urbana-Champaign, 1997: research assistant
- 12. Developing technical terminology for Hindi (attended a series of workshops organized by Scientific and Technical Terminology Commission, Min of HRD, 1994-96) and contributed in developing technical terminology for Hindi
- 13. Computer Assisted Sanskrit Teaching Learning Environment (DoE sponsored project at JNU 1991-94): research investigator

## **Technical Expertise**

- Machine Translation, computational lexicography computational grammar development, grammar analysis, interactive linguistic instruction, software internalization/localization
- Natural Language Interface, Attribute Value Grammar (AVG) development, testing, parsing, algorithm implementation
- Language Technology project management
- B2B e-commerce solutions, test drivers in Java Servlet/JSP, AWT/Swing, Apache/Tomcat, JDBC/SQL Server
- RAD database and web applications, design and development of user interface in the windows/NT environment using Delphi, SQL Server, Interbase
- Project management for software development

## Awards / Honors

- 1. Received the "Datta Peetha Aasthaana Vidvana" award for Sanskrit linguistics at the Shri Ganapati Sachchidananda Ashram Mysore on 26th May 2017
- 2. **KECSS Felicitation Award.-2016** for the revival and development of Sharada script by Kashmir Education, Culture and Science Society (KECSS), 26th Feb, 2016
- 3. **DAAD fellowship** (**Germany**) to teach Computational Linguistics at University of Wurzburg, Germany in 2014
- 4. Nominated to the **Editorial Board of Springer** for their journal *Language Resource and Evaluation (LRE)* since Feb 2010.

- 5. Mukesh and Priti Chatter Distinguished Professor of History of Science at University of Massachusetts Dartmouth, USA (2009-2012).
- 6. Evaluated as *Exceptional Programmer* by the HKUSA software director, 2002
- 7. Beckman Institute for Advance Science & Technology, University of Illinois *Research Assistantship* for advanced studies (Illinois, USA) 1998
- 8. Member of the prestigious Cognitive Science group at the University of Illinois (USA): 1997-1999
- 9. Ranked *Excellent Teacher* twice by students of Hindi at University of Illinois (USA) :1997,1998
- 10. University of Illinois Urbana-Champaign Teaching Assistantship for teaching Hindi language and linguistics to U.S. students: (Illinois, USA) :1997
- 11. Dept. of Psychology, University of Illinois, Urbana-Champaign *Research Assistantship* (summer 1997) to study schizophrenic speech (Illinois, USA) 1997