

## **Dr. AMAN KUMAR SHARMA**

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### **Career Objective**

To pursue a challenging and progressive career in the field of computer science and to use my skills in the best possible manner to achieve the goals of the institution.

### **Professional Qualification**

- ◆ **Doctorate** from the Faculty of Physical Sciences, Himachal Pradesh University, on “Component Based System: A Quality Assurance Framework” under the supervision of Prof. (Dr.) Arvind Kalia, Department of Computer Science, Himachal Pradesh University, Shimla and Prof. (Dr.) Hardeep Singh, Department of Computer Science, Guru Nanak Dev University, Amritsar in 2013 from Himachal Pradesh University, Shimla.
- ◆ **Master in Computer Application (M.C.A.)** in June 1996 from Himachal Pradesh University, Shimla.
- ◆ **Bachelor of Commerce (B.Com.)** in June 1993 from Himachal Pradesh University, Shimla.

### **Academic Achievement**

- ◆ Obtained 100 % marks in Business Statistics in B.Com.

### **Work Experience**

- ◆ Worked with corporate for one year in software development.
- ◆ Working as a faculty member in the Department of Computer Science, Himachal Pradesh University, Shimla for the past 18 years teaching at Graduate and Post Graduate level.
- ◆ Presently working as Professor in the Department of Computer Science, Himachal Pradesh University, Shimla.

### **Area of Interest**

- ◆ Operating System, Software Quality, Visual Basic.

### **Coordinator**

- ◆ **Coordinator** MCA, PGDCA, APGDIT, BCA and all computer related courses of ICDEOL, Himachal Pradesh University, Shimla since 5<sup>th</sup> July 2014.

### **Ph. D. Supervision (08)**

- ◆ Presently eight research scholars enrolled under Ph. D. programme.

### **M. Tech / M. Phil. Guidance (16)**

1. Bhuvnesh Kumar, H.P. University, 2006-08, “Study of Software Engineering Tools”.
2. Rajesh Mohini, H.P. University, 2006-08, “Analysis of Software Design Techniques”.

3. Manisha Arora, H.P. University, 2006-08, "Analysis of Component Based Software Development Models".
4. Nikhil, H.P. University, 2007-09, "Empirical Study of Software Testing Methods".
5. Jagdish Chand, H.P. University, 2008-10, "Empirical Study on Data Mining Methods".
6. Sachin Katoch, H.P. University, 2008-10, "Empirical Study on Web Mining Methods".
7. Vikas, H.P. University, 2008-10, "Empirical Study on Data Warehouse Methods".
8. Tanuja Gupta, H.P. University, 2009-11, "Quantitative Validation of CK Quality Metrics for OSS".
9. Vasundhara Rani, H.P. University, 2009-11, "An Empirical Study on Requirements Elicitation Techniques".
10. Kumari Shailja, H.P. University, 2009-11, "Empirical Study of Software Effort Estimation".
11. Dinesh Kumar, H.P. University, 2010-12, "User Acceptance of Desktop Software: A Framework".
12. Madhusudan, H.P. University, 2010-12, "Parsing Using Multiple Pipelining: A Framework".
13. Anju Bala, H.P. University, 2011-13, "An Improved Algorithm for Marker Based Watershed Transformation in Image Segmentation".
14. Naveen Singh Gill, H.P. University, 2011-13, "Case Study of the Impact of E-Bank in Kinnaur District".
15. Tanuj Wala, H.P. University, 2012-14, "Analysis and Evaluation of Software Testing Tool".
16. Yogita Sharma, H.P. University, 2012-14, "A Comprehensive Study and Enhancement of Bug Tracking Tools".

### **Events Organised (07)**

1. **Co-ordinated** Refresher Course (RC 160) IT of Academic Staff College, Himachal Pradesh University, Shimla from 1<sup>st</sup> April 2006 to 21<sup>st</sup> April 2006.
2. Provided **computer training** to **non-teaching staff** of H.P. University in Feb 2008.
3. **Co-ordinated** Refresher Course (RC 201) IT of Academic Staff College, Himachal Pradesh University, Shimla from 11<sup>th</sup> Dec. 2008 to 31<sup>st</sup> Dec. 2008.
4. Provided **computer training** to **non-teaching staff** of H.P. University from 1<sup>st</sup> Feb 2010 to 12<sup>th</sup> Feb 2010.
5. Provided **computer training** to **non-teaching staff** of H.P. University from 18<sup>th</sup> Nov 2010 to 29<sup>th</sup> Nov 2010.
6. **Co-ordinated** Refresher Course (RC 272) IT of Academic Staff College, Himachal Pradesh University, Shimla from 24<sup>th</sup> Feb. 2014 to 15<sup>th</sup> March 2014.
7. **Organized lecture** on "Awareness of Use of Computer in Law" in joint collaboration with Himachal Pradesh Computer Science Association (HPCSA) and Himachal Pradesh Law Academia Association on 31<sup>st</sup> March 2015.

### **Computerisation (04)**

1. **Developed** and implemented a **Software** for Academic Staff College, Himachal Pradesh University for computerization of administrative operations

- in the office pertaining to Refresher Course and Orientation Programme in December 2006.
2. **Developed** and implemented **Software** for Academic Staff College, Himachal Pradesh University for conducting online evaluation test of participants of Refresher Course and Orientation Programme in June 2006.
  3. **Developed** and implemented **Software** for the office of the Chief Warden for the allocation of hostel to the students in 2002.
  4. **Developed Software** for the International Centre for Distance Education Open Learning H.P. University to computerize the data of the students of the centre in 2000.

### **Invited Talks / Special Lectures**

- ◆ Delivered **66** Lectures as **Resource Person** at Academic Staff College, Himachal Pradesh University in different Orientation Programmes (OP) and Refresher Courses (RC).
- ◆ Delivered **08** Lectures as **Resource Person** at Human Resource Development Centre, Himachal Pradesh University in different Orientation Programmes (OP) and Refresher Courses (RC).
- ◆ **Visiting faculty** to the University College of Business Studies (UCBS) since 1997 for BCA and BBA degree courses.
- ◆ **Visiting faculty** to the International Centre for Distance Education Open Learning (ICDEOL), H.P. University for MCA, BCA, PGDCA, M.Com. APGDIT course.
- ◆ **Visiting faculty** to the HP University Business School for MBA course.
- ◆ **Visiting faculty** to the Department of Education, HP University for B.Ed. course.
- ◆ Delivered **Lecture** on “IT Factor for Managing an Unit: An Impending Need” at HIMCON, Shimla on 23<sup>rd</sup> September 2014.
- ◆ Delivered **Lecture** on “Innovation in Information Technology” at Academic Staff College, Panjab University, Chandigarh on 15<sup>th</sup> December 2014.
- ◆ Delivered **Lecture** on “Cloud Computing” at Academic Staff College, Panjab University, Chandigarh on 23<sup>rd</sup> December 2015.

### **Project (03)**

- ◆ **Submitted Research Project Proposal** with UGC Titled “To propose a framework comprising of Practices Necessary for a Safe Experience in Cyber Space” of an estimated amount of Rs.19,94,000.
- ◆ **Submitted Research Project Proposal** with State Council for Science, Technology & Environment, Shimla Titled “An Assessment of Digital Data Protection: A Case Study of Universities in Himachal Pradesh” of an estimated amount of Rs. 14,97,000.
- ◆ **Submitted Research Project Proposal** with UGC Titled “A Framework for An Assessment of Cloud Service Providers in terms of Cloud Security” of an estimated amount of Rs. 19,05,000.

### **Membership (03)**

- ◆ Life Membership of Computer Society of India – Mumbai. Card no. I1501409.
- ◆ Membership of The Society of Digital Information and Wireless Communications (SDIWC) USA. ID: 11804.
- ◆ Life Membership of Himachal Pradesh Computer Science Association (HPCSA).

### **Research Publications (54)**

#### **International Journals (33)**

1. “Software Testing Methods: A Comparative Study of North Indian Software Industry”, Published in International Journal of Engineering & Information Technology, Vol. 02 No. 3 December 2010 pp. 146-150, **ISSN-0976-0253 (Online)**.
2. “A Comparative Study of Classification Algorithms for SPAM email Data Analysis”, Published in International Journal on Computer Science and Engineering, Vol. 3 Issue 5 May 2011 pp. 1227-1232, **ISSN-0975-3397 (Online) 2229- 5631 (Print)**.
3. “Comparing the Efficiency of Minutia Based & Improved Fingercodes Fingerprint Algorithm”, Published in International Journal of Computer Science & Information Technology, Vol. 2 No. 4 July 2011 pp. 1398-1399, **ISSN-0975-9646**.
4. “Empirical Validation of Quality for OSS Using CK Metric Suite”, Published in International Journal of Engineering Sciences, Vol. 4 Special issue September 2011 pp. 179-189, **ISSN- 2229-6913**.
5. “An Analysis of Optimum Software Quality Factors”, Published in International Organisation of Scientific Research Journal of Engineering [IOSRJEN], Vol. 2 No. 4 April 2012 pp. 663-669, **ISSN-2250-3021**.
6. “Empirical Analysis of Object Oriented Quality Suites”, Published in International Journal of Engineering and Advanced Technology [IJEAT], Vol. 1 Issue 4 April 2012 pp. 163-167, **ISSN-2249-8958**.
7. “A Comparative Study of Image Compression Algorithms”, Published in International Journal Of Research in Computer Science [IJORCS], Vol. 2 Issue 5 July 2012 pp. 37-42, **ISSN-2249-8257**.
8. “Taxonomy of Metrics for Assessing Software Quality”, Published in International Journal of Engineering Research and Technology [IJERT], Vol. 1 Issue 6 August 2012 **ISSN-2278-0181**.
9. “Optimizing Parsing with Multiple Pipelining”, Published in International Journal of Engineering Research and Development [IJERD], Vol. 4 Issue 3 October 2012 pp. 8-12, **e-ISSN-2278-067X p-ISSN 2278-800X**.
10. “Catalogue Based Parsing”, Published in International Journal of Engineering Science and Innovative Technology [IJESIT], Vol. 1 Issue 1 October 2012 pp. 43-47, **ISSN-2319-5967**.
11. “User Acceptance of Desktop Based Computer Software Using UTAUT Model and Addition of New Moderators”, Published in International Journal of Computer Science and Engineering Technology [IJCSET], Vol. 3 Issue 10 October 2012 pp. 509-515, **ISSN-2229-3345**.
12. “Metrics Identification for Measuring Object Oriented Software Quality”, Published in International Journal of Soft Computing and Engineering [IJSCE], Vol. 2 Issue 5 November 2012 **ISSN-2231-2307**.

13. "The Software Quality Assurance Framework For CBSD", Published in International Journal of Advanced Research in Computer Science and Software Engineering [IJARCSSE], Vol. 2 Issue 11 November 2012 pp. 161-170, **ISSN-2277-128X**.
14. "Cloud Computing: An Economic Solution to Higher Education", Published in International Journal of Application or Innovation in Engineering and Management [IJAIEM], Vol. 2 Issue 3 March 2013 **ISSN-2319-4847**.
15. "Effect of Moderators on Determinants: A Case Study of Technology Acceptance Models", Published in International Journal of Research in Computer & Communication Technology [IJRCCT], Vol. 2 Issue 5 May 2013 pp. 254-260, **ISSN-2278-5841**.
16. "Marker Based Watershed Transformation For Image Segmentation", Published in International Journal of Computer Science Engineering and Information Technology Research [IJCSEITR], Vol. 3 Issue 4 October 2013 pp. 187-192, **ISSN-2249-6831**.
17. "Duplicate Bug Report Rate in OSS Projects: A Comparative Analysis", Published in International Journal of Engineering Research and Technology [IJERT], Vol. 2 Issue 10 October 2013 pp. 3509-3513, **ISSN-2278-0181**.
18. "Cloud Computing: A Data Security Framework", Published in International Journal of Computer Science Engineering and Information Technology Research [IJCSEITR], Vol. 3 Issue 5 December 2013 pp. 19-26, **ISSN-2249-6831**.
19. "A Comparative Study of Web Service Testing Tools", Published in International Journal of Advanced Research in Computer Science and Software Engineering [IJARCSSE], Vol. 4 Issue 2 February 2014 pp. 257-261, **ISSN-2277-128X**.
20. "An Exploratory Study of Duplicate Bug Reports in OSS Projects", Published in International Journal of Computer Science and Mobile Computing [IJCSMC], Vol. 3 Issue 3 March 2014 pp. 549-556, **ISSN-2320-088X**.
21. "Test Case Suite Reduction of High Dimensional Data by Automatic Subspace Clustering", Published in International Journal of Soft Computing and Engineering [IJSCE], Vol. 4 Issue 1 March 2014 pp. 159-162, **ISSN-2231-2307**.
22. "Evaluation of the Software Requirement Tools", Published in International Journal of Engineering Research & Technology [IJERT], Vol. 3 Issue 3 March 2014 pp. 950-954, **ISSN-2278-0181**.
23. "Evaluating PaaS Scalability and Improving Performance Using Scalability Improvement Systems", Published in International Journal of Research in Engineering & Technology [IJRET], Vol. 3 Issue 3 March 2014 pp. 598-602, **ISSN-2321-7308, e-ISSN 2319-1163**.
24. "Resource Allocation in Cloud Computing: A Review", Published in International Journal of Advanced Research in Computer Science & Software Engineering [IJARCSSE], Vol. 4 Issue 3 March 2014 pp.1054-1057, **ISSN-2277-128X**.
25. "Cyber Security Issues and Recommendations" Published in International Journal of Advanced Research in Computer Science & Software Engineering [IJARCSSE], Vol. 4 Issue 4 April 2014 pp. 629-634, **ISSN-2277-128X**.
26. "Improvised Software Testing Tool", Published in International Journal of Computer Science and Mobile Computing [IJCSMC], Vol. 3 Issue 9 September 2014 pp. 573-581, **ISSN-2320-088X**.

27. "Enhancing A Software Testing Tool to Validate the Web Services", Published in International Journal of Advanced Research in Computer Engineering & Technology [IJARCET], Vol. 3 Issue 10 October 2014 pp. 3417-3423, **ISSN-2278-1323**.
28. "A Case Study of the Impact of E-banking in Remote Area", Published in International Journal of Research Development & Innovation [IJRDI], Vol. 1 Issue 2 March 2015 pp.77-82, **ISSN-2349-1841**.
29. "Performance Testing Tools: A Comparative Analysis", Published in International Journal of Engineering Technology, Management and Applied Sciences [IJETMAS], Vol. 3 Issue 4 April 2015 pp. 100-105, **ISSN-2349-4476**.
30. "Empirical Analysis of Web Service Testing Tools", Published in International Journal of Engineering Technology, Management and Applied Sciences [IJETMAS], Vol. 3 Issue 4 April 2015 pp. 116-121, **ISSN-2349-4476**.
31. "Comparative Study of the Bug Tracking Tools", Published in International Journal of Advanced Research in Computer Science and Software Engineering [IJARCSSE], Vol. 5 Issue 3 March 2015 pp. 530-536, **ISSN-2277-128X**.
32. "Evaluation of Website", Published in International Journal of Advanced Research in Computer Science and Software Engineering [IJARCSSE], Vol. 5 Issue 6 June 2015 pp. 55-59, **ISSN-2277-128X**.
33. "Emotion Sensing Using 3D images", Published in the Proceedings of the 3<sup>rd</sup> International Conference on Computing for Sustainable Global Development, 10<sup>th</sup> INDIACom 2016, pp. 17-20, **ISSN 0973-7529**.

### **National Journals (03)**

34. "Cloud Computing in Higher Education", Published in Himachal Pradesh University A Bi-annual Research Journal, Vol. 1 Issue 2 March 2012 pp. 115-119.
35. "PSPP: Free Software for Statistical Analysis", Published in CSI Communications, Vol. 38 Issue 7 October 2014 pp. 23-26, **ISSN 0970-647X**.
36. "An Assessment of Vulnerable Detection Source Code Tools", Published in the CSI 50<sup>th</sup> Golden Jubilee Annual Convention BVICAM, New Delhi.

### **International Conferences Abroad (04)**

37. **Presented a paper** on "A Comparative Study of Data Mining Methods", Published in the proceeding of International Conference on Advance Computer Theory and Engineering (ICACTE) 2011, ASME press, pp. 805-810, **Dubai, U.A.E.** December 2011, **ISBN 978-0-7918-5993-3**.
38. "Relationship between Line of Code and Complexity in Open Source Software", Published in the proceeding of International Conference on Advance Computer Theory and Engineering (ICACTE) 2011, ASME press, pp. 801-804, **Dubai, U.A.E.** December 2011, **ISBN 978-0-7918-5993-3**.
39. **Presented a paper** on "An Analysis of Data Warehousing Techniques", in the International Conference in Global Congress On Science and Engineering (GCSE 2011) held on December 28-30, 2011 at **Dubai, U.A.E.**
40. **Presented a paper on** "Empirical Evaluation of Requirements Elicitation Techniques", in the International Conference on Management and Information Technology held on February 20, 2016 at **Abu Dhabi, U.A.E.**

### **International Conference India (05)**

41. **Presented a paper** on "A Routing Model for Managing Large Adhoc Network Using Segments", in the International Conference On Issues and Challenges in

Networking, Intelligence and Computing Technologies, held on 2<sup>nd</sup> & 3<sup>rd</sup> September, 2011 at Krishna Institute of Engineering and Technology (**KIET**), **Ghaziabad**, India.

42. **Presented a paper** on “Empirical Study Of Software Effort Estimation Models”, in the International Conference on Advances in Modeling, Optimization and Computing (AMOC - 2011) held on December 5 - 7, 2011, at Indian Institute of Technology (**IIT**), **Roorkee**, India.
43. **Presented a paper** on “Big Data Analysis and Its Need For Effective E-Governance”, in the International Conference on Emerging Trends of engineering, Science, Management and its Applications [ICETESMA-15], held on 1<sup>st</sup> March 2015, at Jawahar Nehru University [**JNU**], New Delhi, India.
44. “A Comparative Study of Modified Crossover Operators”, Published in the proceeding of International Conference on 2015 Third International Conference on Image Information Processing (ICIIP), IEEE Xplore, pp. 281-284, Wagnaghat, India, 21-24 December 2015, **ISBN 978-1-5090-0147-7**.
45. “Proposed Algorithm for Effective Real Time Stream Analysis in Big Data”, Published in the proceeding of International Conference on 2015 Third International Conference on Image Information Processing (ICIIP), IEEE Xplore, pp. 348-352, Wagnaghat, India, 21-24 December 2015, **ISBN 978-1-5090-0147-7**.

#### **National Conference (05)**

46. “Expanding Dimensions of Open Source Software in Indian IT Industry”, Published in the National Conference on Emerging Trends in Computing and Communication (ETCC) 2008 pp. 427-430, December 2008, NIT Hamirpur.
47. **Presented a paper** on “Empirical Validation of Quality for OSS Using CK Metric Suite”, in the National Conference on Recent Trends in Information Technology and its Applications in Industry, held on 25-26 September 2011, at Bharderwah Campus, University of Jammu, India.
48. **Presented a paper** on “Cloud Computing: The User’s Perspective”, in the 6<sup>th</sup> National Conference on Computing for Nation Development 2012 India Com 2012 held on 23-24 February 2012, at Bharati Vidyapeeth Institute of Computer Applications and Management, New Delhi, India.
49. **Presented a paper** on “Software Quality Evaluation Using MOOD Metrics: A Case Study of OSS”, in the National Seminar on Application, Tools and Techniques of Ubiquitous Computing in Building Intelligent Space (World) held on 17-18 September 2012, at Hindu Girls College, Jagadhri, India.
50. **Presented a paper** on “Violence Against Women (VAW) in Digital Space: Challenges and Opportunities”, in the National Seminar on Violence Against Women held on 21-22 August 2013, at Department of Laws, Himachal Pradesh University and Indian Council of Social Science Research (ICSSR), Shimla, India.

#### **International Conference Chaired Abroad (01)**

1. **Chaired a session** of the International Conference on Information and Multimedia Technology (ICIMT) held on December 28-30 2011, at **Dubai**, U.A.E.

### **International Conference Chaired India (01)**

1. **Chaired a session** of the International Conference on Computing for Sustainable Global Development, 10<sup>th</sup> INDIA Com 2016, held on March 17-18, 2016 at BVICAM, New Delhi.

### **National Conference Chaired (02)**

1. **Chaired a session** of the National Seminar on Web Based Technologies: Present & The Future held on April 30<sup>th</sup> and May 1<sup>st</sup> 2015, at Department of Computer Science, St. Bede's College, Shimla, India.
2. **Chaired a session** of the 50<sup>th</sup> Golden Jubilee Annual Convention held on 02<sup>nd</sup> – 05<sup>th</sup> December 2015 at New Delhi, India.

### **Paper Reviewer**

1. Reviewed research papers for CSI – 2015 conference.

### **Seminars/Workshops Attended (10)**

1. Attended an **Orientation Program** conducted by Academic Staff College, Himachal Pradesh University, Shimla, in May 2002.
2. Attended a **Refresher Course** on “Human Values and Indian Ethos” conducted by Academic Staff College, Himachal Pradesh University, Shimla, in April 2003.
3. Attended a **Refresher Course** on “Information Technology” conducted by Academic Staff College, Calicut University, Calicut, in January 2006.
4. Attended **National Seminar** on “Strategy for Sustainable Development of Himachal Pradesh with special emphasis on Industry, Tourism, Biotechnology, and Information Technology”, conducted by Confederation of Indian Industry (CII) & HP University, Shimla in November 2006.
5. Attended a **Refresher Course** on “IT Awareness” conducted by Academic Staff College, Himachal Pradesh University, Shimla, in April 2008.
6. Attended a **Short Term Programme** on “Internet Technologies” conducted by National Institute of Technical Teachers’ Training and Research (NITTTR), Chandigarh, in March 2011.
7. Attended a **Short Term Programme** on “Network Operating System” conducted by National Institute of Technical Teachers’ Training and Research (NITTTR), Chandigarh, in April 2011.
8. Attended a **Short Term Course** on “Latest Trends in Software Technology for Teaching Faculty” conducted by Academic Staff College, Guru Nanak Dev University (GNDU), Amritsar, from 3<sup>rd</sup> January 2013 to 5<sup>th</sup> January 2013.
9. Attended a **Short Term Programme** on “Open Source Technologies Through ICT” conducted by National Institute of Technical Teachers’ Training and Research (NITTTR), Chandigarh, in July 2014.
10. **Attended** International Peace conference on “Building Nations of Peace: Our shared Responsibility” H.P. University, Shimla on 17<sup>th</sup> September 2014.

### **Additional Information**

- ◆ **Citation Indices of Google Scholar is 96.**
- ◆ **In-charge** of IT Laboratory (Lab-II) of the Computer Science Department from 2003 to August 2011.



- ◆ **Written Lessons** for MCA, BCA, B.Com, PGDCA, APGDIT, M. Com. for International Centre for Distance Education Open Learning H.P. University.
- ◆ External Examiner & Paper Setter for various Universities including H.P. University.
- ◆ **Guided** 88 software development projects at Master in Computer Applications (MCA) level.
- ◆ **Guided** 80 software development projects at Post Graduate Diploma in Computer Application (PGDCA) level.
- ◆ **External Expert** for evaluation of Synopsis/Thesis of IGNOU at undergraduate and postgraduate level.

### **Administrative Member**

- ◆ Coordinated in the inception of **Himachal Pradesh Computer Science Association (HPCSA)**.
- ◆ Member of Board of Studies, (PG & UG) in Computer Science, H.P. University.
- ◆ Member Grievances Redressal Committee ICDEOL, Himachal Pradesh University, Shimla since September 2014.
- ◆ Member Standing Committee, Physical Sciences, Himachal Pradesh University, Shimla.
- ◆ Member of Faculty of Physical Sciences, H.P. University, Shimla.
- ◆ Ex-member of Academic Council, H.P. University, Shimla.
- ◆ Member of various **selection committees** as subject expert.
- ◆ Member of various **inspection committees** of H.P. University as subject expert.
- ◆ Presently **Public Relation Secretary** of the governing body of Himachal Pradesh Computer Science Association (HPCSA).

### **Personal Details**

Father's Name: Late Er. M.L. Sharma  
Retd. as Chief Engineer, HP State Electricity Board, Shimla.

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Present Designation: Professor,  
Computer Science Department,  
Himachal Pradesh University, Shimla.

### **References**

1. **Prof. (Dr.) Hardeep Singh**  
Department of Computer Science,  
Guru Nanak Dev University,  
Amritsar, Punjab.
2. **Shri Mohan Chauhan, IAS,**  
Secretary (General Admin Secretariat Admin)  
Government of Himachal Pradesh,  
Shimla.

(AMAN KUMAR SHARMA)