Dr Adarsh Anand

Title	Dr.	First Name	ADARSH	Last Name	ANAND	Photograph
Designation	Assistant Professor					
Address	Department of Operational Research University of Delhi Delhi - 110007					
Phone No. Office	+91-11- 27666672					
Residence Mobile	0-9650290291					
e-mail	adarsh.anand86@gmail.com					

Education Qualifications		
Degree	Institution	Year
Ph.D	Department of Operational Research, University of Delhi "A Study of Innovation Adoption & Warranty Analysis in Marketing and Successive Software Releases"	2013
M.Phil	Department of Operational Research, University of Delhi "Study of Diffusion in Franchising and Multi-Generation Software"	2010
PG	Department of Operational Research, University of Delhi	2009
UG	Shyam Lal College, University of Delhi	2007

Career Profile

April 2013-till date: Assistant Professor, Department of Operational Research, University of Delhi

Aug 2011- April 2013: Assistant Professor (Ad-hoc), Department of Operational Research, University of Delhi

May 2010-Aug 2011: University Teaching Assistant, Department of Operational Research, University of Delhi

Administrative Assignments

- Deputy Superintendent for Semester Examination held in Department of Operational Research, South Campus during 2013-2014, 2014-2015, 2015-2016, 2016-2017, 2017-2018, 2018-2019.
- In-charge for Internal Assessment compilation of the Department for both the Campuses for the period 2016-2019.
- Organizing Secretary, Workshop on Business Analytics and Intelligence on 25th Feb 2017, Department

of Operational Research, DU.

- Member, AMC Committee, Department of Operational Research, for 2015-2016.
- Observer, JEE main examination, 2015.
- Member, Anti-Smoking Committee, Department of Operational Research, University of Delhi for 2014-2015.
- Member, Faculty of Mathematical Sciences, University of Delhi, under the provision of Statute 9(3) (iv)-Lecturer's category (December 2014-December 2017).
- Teacher-in-charge in Department of Operational Research, University of Delhi, South Campus for Swachcha Bharat Abhiyan, 2014-2015.
- Teacher-in-charge in Department of Operational Research for an Educational Tour of Jaisalmer and Jodhpur where students visited BORANA Stainless Steel Submersible Pumps Industry, 2013.
- Member, Organizing Committee for the Workshop conducted in Department of Operational Research, August 2013.
- Member of Purchase Committees in Department of Operational Research.
- Deputy Superintendent for Final Semester Examination held in Department of Operational Research, 2013-2014.
- Member, M.phil Committee, Department of Operational Research (2013-2015).
- Member of World Lung Foundation that is working towards making Delhi University a Tobacco Free Zone, 2007-2009.
- Active participant of 'RENDEZVOUS 2007-The Alumni Meet' conducted for the first time in the history of Department of Operational Research, University of Delhi.

Areas of Interest / Specialization

Innovation Diffusion Modeling in Marketing and Software Reliability Growth Modeling

Subjects Taught

- Marketing Management
- Marketing Research
- Software Reliability
- Queuing Theory
- Linear Programming
- Mathematical Programming
- Total Quality Management (Statistical Quality Control)
- C++

Research Guidance

Ph.D
- **Mohini Agarwal**, Modeling Awareness Based Innovation Adoption in Marketing & Economic impact of Software Patching, **2018**
- **Subhrata Das**, Some Contributions to Multi up-gradation Modeling and Software Testing Schedule **(Submitted, 2019)**
- **Gunjan Bansal**: under progress
- **Navneet Bhatt**: under progress
- **M. S Irshad:** under progress

M. phil

- **Navneet Bhatt,** Software Reliability Monitoring using Statistical Process Control: A Study, **2015**
- **Gunjan Bansal ,** Innovation Diffusion Modeling for successive generations of Technologies: A Conceptual Study**, 2015**
- **Jasmine Kaur,** A Study of Software Patching & its impact on Optimal Release Time, **2017**
- **M. S Irshad,** Modelling View count dynamics in Social Media: A Study for You Tube Videos, **2017**
- **A. S Rawat,** A Study of Innovation Adoption and Optimal Entry Timing for Multi-Generational Products, **2018**
- **Anurag Kumar,** A Study of Some Multiple Criteria Decision-Making Methods and their Applications for Managerial Discretion, **2018**
- **Sumita Bharmoria,** An Information Theoretic Approach to Study Software Bug Prediction Modeling, **2019**

Publications Profile

Books/Monographs (Authored/Edited)
1. **Anand, A**., & Ram, M. (Eds.). **(2019)**. Recent Advancements in Software Reliability Assurance. CRC Press. (ISBN: 978-1-138-36339-7)
2. **Anand, A**., & Ram, M. (Eds.). **(2018).** System Reliability Management: Solutions and Technologies. CRC Press. (ISBN: 978-0-8153-6072-8)

Research Papers published in International/National Academic Journals

3. Bansal, G., **Anand, A**., & Yadavalli, V. S. S. **(2019)**. Predicting effective customer lifetime: an application of survival analysis for telecommunication industry. Communications in Statistics-Theory and Methods, 1-16.

4. Aggarwal, R., Singh, O., **Anand, A**., & Kapur, P. K. **(2019).** Modeling innovation adoption incorporating time lag between awareness and adoption process. International Journal of System Assurance Engineering and Management, 1-8.

5. Singhal, S., **Anand, A**., & Singh, O. **(2019).** Understanding Multi-Stage Diffusion Process in Presence of Attrition of Potential Market and Related Pricing Policy. Yugoslav Journal of Operations Research.

6. **Anand, A.,** Bansal, G., Aggrawal, D. **(2018).** Choice based diffusion model for predicting sales of mobile phones using conjoint analysis. The Journal of High Technology Management Research. (JHTMR), Vol.29 (2), 216-226, ISSN: 1047-8310

7. **Anand, A.,** Agarwal, M., Aggrawal, D., Singh, O. **(2018).** Innovation Diffusion Modeling considering the time lag between awareness and eventual adoption. *Journal of Advances in Management Research-An Emerald Insight*, Vol.15 (1), 4-16.

8. Aggrawal, N., Arora, A., **Anand, A.,** (**2018**). Modeling and characterizing viewers of You Tube Videos. International Journal System Assurance and Engineering Management (IJSAEM), Vol 9

(2) 539-546.

9. **Anand, A**, Agarwal, M, Aggrawal, D., Singh, O., (**2018**). Queuing Theory based innovation diffusion modeling incorporating change in adoption rate. *International Journal of Mathematics in Operational Research (IJMOR)*, 12(1), 102116**, ISSN online:** 1745-7653, **ISSN print:** 1745-7645.

10. Bhatt, N., **Anand, A.**, Yadavalli, V.S.S., Kumar, V. (**2017**). Modeling and Characterizing Software Vulnerabilities. *International Journal of Mathematical, Engineering and Management Sciences (IJMEMS),* Vol. 2(4), 288-299.

11. **Anand, A.,** Bansal, G. **(2017).** Interpretive Structural Modelling for attributes of Software Quality. *Journal of Advances in Management Research-An Emerald Insight*, Vol.14 (3), 256-269.

12. Deepika, Singh, O., **Anand, A.**, Singh, J.N.P. (**2017**). Testing Domain Dependent Software Reliability Growth Models. *International Journal of Mathematical, Engineering and Management Sciences (IJMEMS)*, Vol. 2(3), 140-149.

13. Agarwal, M., Aggrawal, D., **Anand, A.**, Singh, O. (**2017**). Modeling Multi-generation Innovation Adoption based on conjoint effect of Awareness Process. *International Journal of Mathematical, Engineering and Management Sciences (IJMEMS),* Vol. 2(2), 74-84.

14. **Anand, A.**, Bansal G. (**2016**). Predicting Customer's Satisfaction (Dissatisfaction) using Logistic Regression. *International Journal of Mathematical Engineering and Management Sciences (IJMEMS),* Vol. 1(2), 75-86.

15. **Anand, A.**, Agarwal, M., Aggrawal, D., Singh, O. (**2016**). Unified Approach for Modeling Innovation Adoption & Optimal Model Selection for the Diffusion Process. *Journal of Advances in Management Research-An Emerald Insight*, Vol.13 (2), 154-178.

16. **Anand, A.**, Singh, O., Agarwal, M., Garmabaki, A.H.S. (**2016**). Studying Product Diffusion based on Market Coverage. *Journal of Marketing Analytics*, 1-12.

17. **Anand, A.**, Agarwal, M., Tamura, Y., Yamada, S. (**2016**). Economic Impact of Software Patching and Optimal Release Scheduling. *Quality and Reliability Engineering International*, DOI: 10.1002/QRE.1997.

18. **Anand, A.**, Bhatt, N. **(2016**). Vulnerability Discovery Modeling and Weighted Criteria Based Ranking. *Journal of the Indian Society for Probability and Statistics*, 1-10.

19. Aggrawal, D., Bansal, G., **Anand, A.**, Papic, L. (**2016**). Types of Customers surrounding a brand: A classification based on correspondence analysis. *Communications in Dependability and Quality*

Management-An International Journal, Serbia, 19(1), 5-17.(Impact Factor in RINC: 0.022)

20. Aggarwal, R., Singh, O., **Anand, A.**, Yadavalli, V.S.S. (**2016**). Market expansion based Innovation Diffusion Modeling and Optimal timing for changing management Strategy. *Communications in Dependability and Quality Management-An International Journal, Serbia*, 19(1), 27-35. .(Impact Factor in RINC: 0.022)

21. **Anand, A.**, Singh, O., Aggarwal, R., Aggrawal, D. (**2016**). Diffusion Modeling based on Customer's Review and Product Satisfaction", *International Journal of Technology Diffusion*, 7(1), 20-31.

22. Bansal, G., **Anand, A.**, Aggrawal, D., Agarwal, M. (**2016**). Competitive Diffusion based Modeling Framework for adoption of Product Lines. *Communications in Dependability and Quality Management-An International Journal, Serbia*, 19(1), 43-54. .(Impact Factor in RINC: 0.022)

23. Deepika, **Anand, A.**, Singh, N., Dutt, P. (**2016**). Software Reliability Modeling based on in-house and Field Testing. *Communications in Dependability and Quality Management-An International Journal, Serbia*, 19(1), 43-54. .(Impact Factor in RINC: 0.022)

24. **Anand, A.**, Aggarwal, R., Singh, O., Aggrawal, D. (**2016**). Understanding Diffusion Process in the context of product disadoption. *Theortical bases of Economics and Management; St Petersburg State Polytechnical University Journal. Economics*, 240(2), 7-18.

25. **Anand, A.**, Deepika, Singh, O. (**2016**). Incorporating Features Enhancement Archetype in Software Reliability Growth Modeling and Optimal Release Time Determination. *International Journal of Computer Applications (IJCA)*, 139(4), 1-6.

26. Kumar, A., **Anand, A.**, Garg, P.K., Agarwal, M. (**2015**). Optimal Release Time Decision from Fuzzy mathematical Programming Perspective. *International Journal of Pure and Applied Mathematics*, 103(2), 359-376.

27. Das, S., **Anand, A.**, Singh, O., Singh, J. (**2015**). Influence of Patching on Optimal Planning for Software Release and Testing Time. *Communications in Dependability and Quality Management-An International Journal, Serbia*, 18(4), 81-92. .(Impact Factor in RINC: 0.022)

28. Singh, O., Aggrawal, D., **Anand, A.**, Kapur, P.K. (**2015**). Fault Severity Based Development of Multi-Release SRGM with Testing Resources. *International Journal System Assurance and Engineering Management (IJSAEM)*, 6(1), 36-43.

29. Agarwal, M., **Anand, A.**, Aggrawal, D. (**2015**). Profit Determination Based on Infusion and Diffusion Process: A Sequential Approach. *Communications in Dependability and Quality Management-An International Journal, Serbia*, 18(4), 111-119. .(Impact Factor in RINC: 0.022)

30. **Anand, A.**, Singh, O., Das, S. (**2015**). Fault Severity Based Multi up-gradation Modeling considering Testing and Operational Profile. *International Journal of Computer Applications (IJCA)*, 124(4), 9-15.

31. Aggrawal, D., **Anand, A.,** Singh, O., Kapur, P.K. (**2015**). Modeling Successive generations for Products-In-use and Number of products sold in the Market. *International Journal of Operations Research (IJOR)*, 24(2), 228-24**4, ISSN online:** 1745-7653, **ISSN print:** 1745-7645.

32. Singh, G**., Anand, A.**, Bansal, G., Singh, J., Kapur, P.K. (**2015**). An Interactive Approach to understand Youth's Perception towards Mobile Phones: A Case Study. *Amity International Journal of Engineering and Management (AIJEM)*, 1(1), 73-82.

33. Singh, J., **Anand, A.**, Kumar, A., Khatri, S.K. (**2014**). A Discrete Formulation of Successive Software Releases Based on Imperfect Debugging. *MIS Review Journal*, 20(1), 45-59.

34. **Anand, A.**, Bhatt, N., Aggrawal, D., Papic, L. (**2014**). Statistical Process Control and Software Reliability Trend: An Analysis Based on Inter Failure time Data. *Communications in Dependability and Quality Management-An International Journal, Serbia*, 17(4), 15-26. .(Impact Factor in RINC: 0.022)

35. Kapur, P.K., **Anand, A.**, Sachdeva, N. (**2014**). Profit Estimation for product under warranty: An Evaluation Based on Customer's Expectation and Satisfaction. *International Journal of Reliability, Quality and Safety Engineering (IJRQSE)*,21(6), 1450029-1450045.

36. **Anand, A.**, Singh, O., Aggrawal, D., Singh, J. (**2014**). An Interactive Approach to determine Optimal Launch Time of Successive Generational Product. *International Journal of Technology Marketing (IJTMKT)*, 9(4), 392–407.

37. Singh, O., **Anand, A.,** Aggrawal, D., Singh, J. (**2014**). Modeling Multi up-gradations of Software with Fault Severity & Measuring Reliability for each Release. *International Journal System Assurance and Engineering Management (IJSAEM)*, 5(2), 195-203.

38. Aggrawal, D., Singh, O., **Anand, A.**, Agarwal, M. (**2014**). Optimal Introduction Timing Policy for a Successive Generational Product. *International Journal of Technology Diffusion (IJTD)*, 5(1), 1-16, **ISSN (printed)**: 1947-9301. **ISSN (electronic)**: 1947-931X

39. Aggrawal, D., **Anand, A.**, Singh, O., Singh, J. (**2014**). Profit Maximization by Virtue of Price & Warranty Length Optimization. *Journal of High Technology Management Research (JHTMR)*, 25, 1-8, **ISSN**: 1047-8310

40. Singh, O., **Anand, A.**, Aggrawal, D., Papic, L. (**2014**). Uncertainty Based Fault Removal Phenomenon and Successive Software Releases Planning. *Communications in Dependability and Quality Management-An International Journal, Serbia*, 17(1), 5-17. .(Impact Factor in RINC: 0.022)

41. **Anand, A.**, Aggrawal, D., Das, S., Dhiman, D. (**2013**).Computation of Discrepant Faults using Flexible Software Reliability Growth Modeling Framework. *Communications in Dependability and Quality Management-An International Journal, Serbia*, 16(2), 15-27. .(Impact Factor in RINC: 0.022)

42. **Anand, A.,** Kapur, P.K., Singh, O., Sachdeva, N. (**2013**). Optimal Warranties and Two Dimensional Innovation Diffusion. Available at SSRN: http://ssrn.com/abstract=2267825 or http://dx.doi.org/10.2139/ssrn.2267825

43. Singh, O., **Anand, A.**, Kapur, P.K., Aggrawal, D. (**2012**). Consumer Behavior Based Innovation Diffusion modeling using Stochastic Differential Equation incorporating change in adoption rate. *International Journal of Technology Marketing.(IJTMKT)*, 7(4), 346-360, **ISSN online:** 1741-8798, **ISSN print:** 1741-878X

44. Kapur, P.K., Kumar, U., Sachdeva, N., **Anand, A.** (**2012**). Optimal Price and Warranty Length. *Communications in Dependability and Quality Management-An International Journal, Serbia*, 15(1), 5-13.

45. Singh, J., Singh, O., Aggrawal, D., **Anand, A.** (**2012**). A Flexible Reliability Growth Model for Various Releases of Software under the influence of Testing Resources. *Journal of Pure and Applied Science & Technology (JPAST)*, 2(2), 14-25, ISSN- 2231–4202 (Print); 2249–9970 (Online).

46. Singh, O., Kapur, P. K., **Anand, A.** (**2012**). A Multi Attribute Approach for Release time and Reliability Trend Analysis of a software. *International Journal of System Assurance and Engineering Management (IJSAEM)*, 3(3), 246-254, ISSN: 0975-6809 (print version)

47. Kapur, P.K., Pham, H., Kumar, V., **Anand, A.** (**2012**). Dynamic Optimal Control Model for Profit Maximization of Software Product under the Influence of Promotional Effort. *Journal of*

High Technology Management Research, 23(2), 122-129.

48. Kapur, P.K., Singh, O., **Anand, A.** (**2012**). Two Dimensional Software Reliability Modeling and Related Allocation Problems using Genetic Algorithm. *Journal of Life Cycle Reliability and Safety Engineering*, 1(2), 44-60.

49. Kapur, P. K., Singh, G., Singh, O., **Anand, A.** (**2012**). Assessing Diffusion Process in context of Customer Behaviour based on Fluctuation in Adoption rate**.** *International Journal of Mathematical Modeling Simulation and Applications (IJMMSA)*, 5(1), 01-10, ISSN/ISBN-0973 – 8355

Research Papers published/presented in International/National Conference Proceedings

1. **Anand, A**., & Singh, O. **(2019).** Formulation of Error Generation-Based SRGMs Under the Influence of Irregular Fluctuations. In System Performance and Management Analytics (pp. 103-117). Springer, Singapore.

2. **Anand, A.,** Bansal, G., Rawat, A. S., & Kapur, P. K. (**2019**). Diffusion Modeling Framework for Adoption of Competitive Brands. In System Performance and Management Analytics (pp. 307-320). Springer, Singapore.

3. **Anand, A.,** Singhal, S., & Singh, O. **(2018).** Revisiting Dynamic Potential Adopter Diffusion Models under the Influence of Irregular Fluctuations in Adoption Rate. In Handbook of Research on Promoting Business Process Improvement Through Inventory Control Techniques (pp. 499-519). IGI Global.

4. **Anand, A.,** Das, S., Aggrawal, D., & Kapur, P. K. **(2018).** Reliability Analysis for Upgraded Software with Updates. In Quality, IT and Business Operations (pp. 323-333). Springer, Singapore.

5. **Anand, A**., Bansal, G., & Agarwal, M. **(2018).** Modeling Adoption of a Successive Generational Product in Multiple Markets. In Handbook of Research on Promoting Business Process Improvement Through Inventory Control Techniques (pp. 427-441). IGI Global.

6. **Anand, A**., Singhal, S., Panwar, S., & Singh, O. **(2018).** Optimal price and warranty length for profit determination: an evaluation based on preventive maintenance. In Quality, IT and Business Operations (pp. 265-277). Springer, Singapore.

7. Aggrawal D**.,** Agarwal, M**., Anand**, **A**., Aggarwal, R., (**2017**). Convolution of awareness in modelling industrial and technological innovation adoption. *In proceeding of 8th International DQM conference on life cycle engineering and management (ICDQM-2017), Serbia,*(pp-143-

152).

8. **Anand**, **A**., Singhal, S., Singh, O. (**2016**). Multi-stage Diffusion Dynamics based on Optimal Control Theory. In proceedings of *Reliability, Infocom Technologies and Optimization (ICRITO) (Trends and Future Directions), 2016 5th International Conference* (pp. 1-6). 978-1-5090-1489-7/16/$31.00 ©2016 IEEE.

9. **Anand, A**., Das, S., Singh, O. (**2016**). Modeling Software Failures and Reliability Growth based on Pre & Post Release Testing. In proceedings of *Reliability, Infocom Technologies and Optimization (ICRITO) (Trends and Future Directions), 2016 5th International Conference* (pp. 1-6). 978-1-5090-1489-7/16/$31.00 ©2016 IEEE.

10. Singh, O., **Anand**, **A**., Kapur, P.K., Mittal, R. (**2015**). Managing Launch Time of Successive Industrial Technologies. *In proceedings of Quality, Reliability, Infocom Technology and Industrial Technology Management. 2012 6th International Conference*, (pp. 256-270).

11. **Anand**, **A**., Aggarwal, D., Singh, O., Singh, J. (**2015**). Bass Model incorporating change in the adoption rate: A study in discrete environment. *In proceedings Quality, Reliability, Infocom Technology and Industrial Technology Management. 2012 6th International Conference*, (pp. 211-223).

12. Goswami, D.N., Kapur, P K., Kumar, A., **Anand**, A. (**2015**). Testing-Domain based SRGM for Distributed environment Incorporating Two types of Imperfect Debugging. *In proceedings of Quality, Reliability, Infocom Technology and Industrial Technology Management. 2012 6th International Conference*, (pp. 317-327).

13. **Anand**, **A**., Singh, O., Aggarwal, R., Kapur, P.K. (**2015**). Customer Behavior Dependent Diffusion Process & Optimal Model Selection using Distance Based Approach. *In Proceedings of 1st International Conference on Futuristic Trends in Computational Analysis and Knowledge Management*, (pp. 711 – 716).

14. **Anand**, **A**., Aggrawal, D., Agarwal, M., Aggarwal, R. (**2015**). A Discrete Innovation Diffusion Model Incorporating Change in the Adoption Rate. *In Proceedings of 1st International Conference on Futuristic Trends in Computational Analysis and Knowledge Management*, (pp 73-79).

15. **Anand**, **A**., Agarwal, M., Das, S., Kapur, P.K. (**2015**). Optimal Release Time Decision from Fuzzy Programming Perspective. *Presented at National Conference on Recent Trends and Developments in Statistics (NCRTDS 2015)*.

16. **Anand**, **A**., Singh, O., Agarwal, M., Aggarwal, R. (**2015**). Convolution of Awareness and

Adoption Modeling Innovation Diffusion. *Presented at National Conference on Recent Trends and Developments in Statistics (NCRTDS 2015).*

17. **Anand**, **A**., Singh, O., Kapur, P.K, Das, S. (**2014**). Modeling Conjoint Effect of Faults Testified from Operational Phase for Successive Software Releases. *In proceeding of 5th International DQM conference on life cycle engineering and management (ICDQM-2014), Serbia*, ISBN 978-86-86355-17-1 (pp-83-94).

18. **Anand**, **A**., Singh, O., Agarwal, M., Aggarwal, R. (**2014**). Modeling adoption process based on awareness and motivation of consumers. In proceedings of *Reliability, Infocom Technologies and Optimization (ICRITO) (Trends and Future Directions), 2014 3rd International Conference on* (pp. 1-6). IEEE.

19. **Anand, A.**, Kapur, P. K., Agarwal, M., & Aggrawal, D. (**2014**). Generalized Innovation Diffusion Modeling & Weighted Criteria Based Ranking. In proceedings of *Reliability, Infocom Technologies and Optimization (ICRITO) (Trends and Future Directions), 2014 3rd International Conference on* (pp. 1-6). IEEE.

20. Singh, O., **Anand**, **A**., Aggrawal, D., Agarwal, M. (**2014**). Utility Based Assessment of Attributes for Software Quality. *In proceeding of 5th International DQM conference on life cycle engineering and management (ICDQM-2014), Serbia*, ISBN 978-86-86355-17-1 (pp-95-110).

21. Singh, O., Kapur, P.K, Singh, J.N.P, **Anand**, **A**. (**2013**). Optimal Release time of software: An integrated approach. *In proceeding of 4th International DQM conference on life cycle engineering and management (ICDQM-2013), Serbia*, (pp-148-161).

22. Singh, O., Singh, J., **Anand**, **A**., Singh, I. (**2012**). Software Metrics and Reliability. *In proceedings of 6th National Conference; INDIACom 2011, Bharati Vidyapeeth's Institute of Computer Applications and Management, New Delhi*, (pp 251-254).

23. Kapur, P.K, Singh, G., **Anand**, **A**., Sachdeva, N. (**2012**). Managing Multi Generations of Technologies: State of the Art. *Presented at 14th International Business Horizon (INBUSH), Amity University, Noida, UP, India*.

24. Singh, O., Kapur, P.K., **Anand**, **A**., Kumar, J. (**2012**). A Software Reliability Growth Model Embodying Features Intensification. *Presented at 14th International Business Horizon (INBUSH), Amity University, Noida, UP, India*.

25. Singh, O., Kapur, P.K., **Anand**, **A**., Singh, J. (**2012**). Stochastic Differential Equation Based Modeling for Multiple Generations of Software. *In proceedings of 4th International Conference on Quality, Reliability and Infocom Technology (ICQRIT-2009), Trends And Future Directions,*

Narosa Publications (pp 122-131).

26. Singh, O., Kapur, P.K., **Anand**, **A**. (**2011**). A Stochastic Formulation of Successive Software Releases with faults Severity. *In proceedings of The IEEE International Conference on Industrial Engineering and Engineering Management (IEEM), Singapore*, (pp136-140).

27. Kapur P.K, **Anand**, **A**., Singh, O. (**2011**). Modeling Successive Software Up-gradations with Faults of different Severity. *In Proceedings of the 5th National Conference; INDIACom 2011, Eds. Prof M. N. Hoda, Bharati Vidyapeeth's Institute of Computer Applications and Management, New Delhi* (pp 351-356)

28. Singh, O., Kapur, P.K., **Anand**, **A**., Kaur, G. (**2011**). Stochastic Differential Equation Based Modeling for Multiple Generations of Software and Optimal Release Planning. *In proceedings of 5th International Conference on Quality, Reliability and Infocom Technology (ICQRIT-2011), Trends and Future Directions, Kathmandu, Nepal*, SN-19, pc-19.

29. Kapur, P.K., **Anand**, **A**., Kaur, G., Aggarwal, A.G. (**2011**). Profit Maximization and Determination of Optimal Adoption Time and Price for a Product under Warranty. *In proceedings of 5th International Conference on Quality, Reliability and Infocom Technology (ICQRIT), Trends and Future Directions, Kathmandu, Nepal*, SN-13, pc-13.

30. Singh, O.**,** Kapur P.K., **Anand**, **A**. (**2011**). A Dynamic Potential Adopter Diffusion Model Incorporating Change in the Adoption Rate. *Proceedings of the International Congress on Productivity, Quality, Reliability, Optimization and Modeling (ICPQROM-2011), Allied Publishers Pvt. Ltd., New Delhi* (pp 593-604)

31. Singh, O., **Anand**, **A**., Kapur, P.K., Singh, J. (**2010**). Mathematical Modeling of Multi-Up-gradations in Software Considering Faults severity. *Presented at International Conference on Development and Applications of Statistics in Emerging Areas of Science and Technology (ICDASEAST), Jammu.*

Book Chapters

1. **Anand, A**., Agrawal, M., Bhatt, N., & Ram, M. **(2019).** Software Patch Scheduling Policy Incorporating Functional Safety Standards. In Advances in System Reliability Engineering (pp. 267-279). Academic Press.

2. **Anand, A**., Gupta, P., Klochkov, Y., & Yadavalli, V. S. **(2018).** Modeling Software Fault Removal and Vulnerability Detection and Related Patch Release Policy. In System Reliability Management (pp. 35-50). CRC Press.

3. **Anand, A**., Bansal, G., Agarwal, M., & Aggrawal, D. **(2018).** Remanufacturing: An Industrial Strategy for Economic Benefits. In Diagnostic Techniques in Industrial Engineering (pp. 137-155). Springer, Cham.

4. **Anand, A.,** Deepika, A. K., & Ram, M. **(2018).** Revisiting Error Generation and Stochastic Differential Equation-Based Software Reliability Growth Models. In System Reliability Management (pp. 81-94). CRC Press.

5. **Anand, A**., Bansal, G., & Agarwal, M. **(2018).** Modeling Adoption of a Successive Generational Product in Multiple Markets. In Handbook of Research on Promoting Business Process Improvement Through Inventory Control Techniques (pp. 427-441). IGI Global.

6. Bhatt, N., **Anand, A**., Aggrawal, D., & Alhazmi, O. H. **(2018).** Categorization of Vulnerabilities in a Software. In System Reliability Management (pp. 137-152). CRC Press.

7. Shrivastava, A. K., Das, S., **Anand, A**., & Singh, O. **(2018).** Optimizing Price, Release, and Testing Stop Time Decisions of a Software Product. In System Reliability Management (pp. 205-220). CRC Press.

8. **Anand, A**., Singhal, S., & Singh, O. **(2018).** Revisiting Dynamic Potential Adopter Diffusion Models under the Influence of Irregular Fluctuations in Adoption Rate. In Handbook of Research on Promoting Business Process Improvement Through Inventory Control Techniques (pp. 499-519). IGI Global.

9. Agarwal, M., **Anand, A**., Aggrawal, D., & Mittal, R. **(2018).** Understanding Time Delay Based Modeling and Diffusion of Technological Products. Advanced Mathematical Techniques in Science and Engineering, 155.

10. **Anand, A**., Aggarwal, R., & Singh, O. **(2018).** Market segmentation based modeling: An approach to understand multiple modes in diffusion curves. In Advanced Mathematical Techniques in Engineering Sciences (pp. 165-176). CRC Press.

11. Aggrawal, N., Arora, A., **Anand, A**., & Irshad, M. S. **(2018)**. View-count based modeling for YouTube videos and weighted criteria–based ranking. In Advanced Mathematical Techniques in Engineering Sciences (pp. 149-160). CRC Press.

12. **Anand, A**., Das, S., Aggrawal, D., & Klochkov, Y. **(2017).** Vulnerability Discovery Modelling for Software with Multi-versions. In Advances in Reliability and System Engineering (pp. 255-265). Springer International Publishing.

13. **Anand, A**., Bhatt, N., Aggrawal, D., & Papic, L. **(2017).** Software Reliability Modeling with Impact of Beta Testing on Release Decision. In Advances in Reliability and System Engineering (pp. 121-138). Springer International Publishing.

Conference/Workshop Participation

- 2nd National Conference on Recent Advances in Mathemativs-NCRAM'19, St. Peter's Institute of Higher Education & Research, (Deemed to be University), Chennai, July 12-13, **2019.**
- International Conference on Emerging Trends in Engineering, Management & Sciences (ICETEMS2019), Graphic Era Hill University, Bhimtal Campus, Nainital, Uttarakhand, April 27-28, **2019**.
- National Conference on Relevance of Applied Sciences to Emerging Technologies (ROASET2019), Ajay Kumar Garg Engineering College, Ghaziabad, April 24-25, **2019**.
- Amity International Conference on Artificial Intelligence (AICAI2019), Amity University Dubai, Dubai International Academic City, Feb. 4-6, **2019**
- **Joint Secretary**, 1st International Conference on Emerging Trends in Inventory, Supply Chain

- & Reliability Modeling (ETISCRM 2018), University of Delhi, Delhi, December 21-23, **2018**
- International Conference on Emerging Innovations in Statistics & Operations Research (EISOR-2018), M.D. University, Rohtak, December 27-30, **2018**.
- **Secretary, Programme Committee**, 9th International Conference on Quality, Reliability, Infocom Technology and Business Operations (ICQRITBO), University of Delhi, Delhi, December 27-29, **2018.**
- 3rd International Conference on Mathematical Techniques in Engineering Applications (ICMTEA2018), Graphic Era Deemed to be University, Dehradun, December 7-8, **2018**.
- 2nd International Conference of Vijnana Parishad of India on Recent Trends of Computing in Mathematics, Statistics & Information Technologies (RTCMSIT-2018), Bundelkhand University, Jhansi, **2018**.
- 7th International Conference on Reliability, Infocom Technology and Optimization" (ICRITO), Amity University, Noida, August 29-31, **2018**.
- 9th DQM International Conference on Life Cycle Engineering and Management (ICDQM-2018), DQM Research Centre, Serbia, June 28-29, **2018**.
- International Conference on Quality Assurance Engineering and Interdisciplinary Research (ICQAEIR-2017), Peter the Great St. Petersburg Polytechnic University, Russia, **2017**
- **Technical Co-chair,** Joint International Conference on Interdisciplinary Research & 8th International Conference on Quality, Reliability, Infocom Technology and Business Operations, Amity University, Noida, **2017.**
- 5th International Conference on Reliability, Infocom Technology and Optimization" (ICRITO), Amity University, Noida, **2016**.
- International Conference on Recent Advances in Optimization Theory and Applications (RAOTA), **2016.**
- International management Conference (IMC-2016) on Business and Economy: Growth, Governance and Globalization, Fortune Institute of International Business, **2016**
- **Secretary, Organizing Committee**, 7th International Conference on Quality, Reliability and Information Technology and Business Operations (Trends and Future directions), University conference hall, University of Delhi, December 28-30, **2015.**
- National Conference on Recent Trends and Developments in Statistics (NCRTDS), Rohtak, **2015**
- International Conference on Futuristic Trends in Computational Analysis and Knowledge Management, Amity University, Greater Noida Campus, A-BLAZE-**2015**
- 3rd International Conference on Reliability, Infocom Technologies and Optimization (ICRITO) held in Amity University, Noida, **2014**.
- 2nd International Conference on Reliability, Infocom Technology and Optimization" (ICRITO), Amity University, Noida, **2013**.
- National Conference on Recent Trends in Operations Research NCRTOR,Delhi, **2013.**
- **Joint Secretary, Organizing Committee**, 6th International Conference on Quality, Reliability, Infocom Technology and Industrial Technology management, University of Delhi, **2012.**
- 14th International Business Horizon (INBUSH), Amity University, Noida, **2012**
- 5th International Conference on Quality, Reliability and Infocom Technology (ICQRIT), Trends And Future Directions, Kathmandu, Nepal, **2011**
- International Congress on Productivity, Quality, Reliability, Optimization and Modeling (ICPQROM),ISI, New Delhi, **2011**
- The 5th National Conference; INDIA Com 2011, Bharati Vidyapeeth's Institute of Computer Applications and Management, New Delhi,**2011**
- National Conference on Mathematical and Statistical Modeling in Innovative Areas, BITS-

MESRA, Ranchi, **2011**

- International Conference on Development and Applications of Statistics in Emerging Areas of Science and Technology (ICDASEAST), Jammu, **2010**
- 4th International Conference on Quality, Reliability and Information Technology (Trends and Future directions), University conference hall, University of Delhi, **2009**
- Winter Workshop on IR Spectroscopic Techniques, Indian Society of Analytical Scientists, Delhi Chapter, **2006.**

Invited Talks

- Invited Talk on, *"Technology Adoption Assessment Using Mathematical Modeling"* during National Conference on Recent Advances in Mathemativs-NCRAM'19, organized by St. Peter's Institute of Higher Education & Research, (Deemed to be University), Chennai, July 12-13, **2019**.
- Invited Talk on, *"Managing Research in a Scientific Way"* during Faculty Development Programme on Academic Writing, Ethics & Publications, organized by Graphic Era Deemed to be University and Uttarakhand Science Education & Research Centre, Dehradun, May 2-4, **2019**.
- Invited Talk on, *"Software Patch Modeling based on Vulnerabilities discovered and disclosed"* during International Conference on Emerging Trends in Engineering, Management & Sciences (ICETEMS2019), Graphic Era Hill University, Bhimtal Campus, Nainital, Uttarakhand, April 27-28, **2019.**
- Invited Talk on, *"An ISM Approach to understand popularity dynamics of You Tube Videos"* during National Conference on Relevance of Applied Sciences to Emerging Technologies (ROASET2019), Ajay Kumar Garg Engineering College, Ghaziabad, April 24-25, **2019**.
- Invited Talk on, *"Software Vulnerability Discovery: Modeling & Analysis"* during 3rd International Conference on Mathematical Techniques in Engineering Applications (ICMTEA2018), Graphic Era Deemed to be University, Dehradun, December 7-8, **2018.**
- Invited Talk on, *"Multi-Generational Diffusion Modeling based on Awareness Process"* during 9th DQM International Conference on Life Cycle Engineering and Management (ICDQM-2018), DQM Research Centre, Serbia, June 28-29, **2018**.
- Invited Talk on, *"Role of Awareness in understanding diffusion for successive generational products"* during 2nd International Conference of Vijnana Parishad of India on Recent Trends of Computing in Mathematics, Statistics & Information Technologies (RTCMSIT-2018), Bundelkhand University, Jhansi, **2018**.
- Invited Talk on, *"Marketing Management: Product Promotion, Sales and Advertising"* during Entrepreneurship Development Programme, Amity School of Engineering and Technology, Bijwasan, Delhi, June 11-July 13, **2018**.

Session Chair during Conferences

- Chaired a technical session on "Optimization, Decision-making and Artificial Intelligence-II" during Amity International Conference on Artificial Intelligence (AICAI2019), Amity University Dubai, Dubai International Academic City, Feb. 4-6, **2019**
- Chaired a technical session during 3rd International Conference on Mathematical Techniques in Engineering Applications (ICMTEA2018), Graphic Era Deemed to be University, Dehradun, December 7-8, **2018.**
- Chaired a technical session on "Mathematical Modeling & Optimization" during 7th International Conference on Reliability, Infocom Technology and Optimization" (ICRITO), Amity University, Noida, August 29-31, **2018.**
- Chaired a technical session during International Conference on Emerging Innovations in Statistics & Operations Research (EISOR-2018), M.D. University, Rohtak, December 27-30, **2018.**
- Chaired a technical session on "Reliability Engineering and Optimization-I" during 5th International Conference on Reliability, Infocom Technology and Optimization" (ICRITO), Amity University, Noida,

September 7-9, **2016.**

- Chaired a technical session on "Optimization Techniques" during 4th International Conference on Reliability, Infocom Technology and Optimization" (ICRITO), Amity University, Noida, September 2-4, **2015.**
- Chaired a technical session on "Information Technology" during 7th International Conference on Quality, Reliability and Information Technology and Business Operations (Trends and Future directions), University conference hall, University of Delhi, December 28-30, **2015**.
- Chaired a technical session on "Mathematical Modeling-I" during 3rd International Conference on Reliability, Infocom Technology and Optimization" (ICRITO), Amity University, Noida, October 8-10, **2014.**

Computer Skills

OS   Windows(Xp, Seven)
Typography   Microsoft Office
Programming C/C++
Scientific   MAPLE

Research Projects (Major Grants/Research Collaboration)

- Modeling Up-gradations and Release Time Problems of Software & Successive Generations of Technologies in Marketing: **Co-Principal Investigator, DU-DST PURSE-II Grant. 2014-2018.**
- Innovation Diffusion Based on Unified Approach & Multiple Generations of Technologies: **Principal Investigator, R & D Research Project sponsored by University of Delhi. 2014-2015**.
- On Studying Innovation Adoption for Consecutive Generations in Marketing and Successive Software Releases: **Principal Investigator, R & D Research Project sponsored by University of Delhi. 2013-2014**.

Project Work

- **"Screening New Product Possibilities (An Operational Research Perspective)" -**A Project completed for UGC Sponsored Refresher Course in Mathematical Sciences conducted by Centre for Professional Development in Higher Education (CPDHE), UGC-ASC, University of Delhi, **2019**
- **"Operational Research as a tool to identify Consumer's preference for mobile phones"-**A Project completed for UGC Sponsored Refresher Course in Mathematical Sciences conducted by Centre for Professional Development in Higher Education (CPDHE), UGC-ASC, University of Delhi, **2015**
- **"Operational Research as a tool to understand Consumer's Brand Switching Behaviour"-** A Project completed for UGC Sponsored Orientation Programme (OR-76) conducted by Centre for Professional Development in Higher Education (CPDHE), UGC-ASC, University of Delhi, **2014**
- **STAR DEN ENTERTAINMENT NETWORK LTD**, Okhla, Delhi in the area of Marketing Research, **2008.**
  -Worked on to see the brand image of star den network channels among the viewers
  -Analyzed the viewer-ship behavior towards Star Den channels through market survey
  -Suggested the organization to expand their market in a better way through Factor analysis & SWOT analysis

Awards and Distinctions

- **2017 Highly Commended Award** by Journal of Advances in Management Research for the article "Unified Approach for Modeling Innovation Adoption & Optimal Model Selection for the Diffusion Process"
- Certified with **Best Paper Award** in International on Quality Assurance Engineering and Interdisciplinary Research (ICQAEIR 2017) by Peter the Great St. Petersburg Polytechnic University, Russia, August 23-25, **2017**
- Certified with **Best Paper Award** under the track **General Management** in International Management Conference (IMC-2016) on Business and Economy: Growth, Governance and Globalization" by Fortune Institute of International Business, New Delhi, **2016**
- Conferred with **International Research Excellence Award** for Contributions as *Young Promising Researcher in field of Innovation Diffusion Modeling in Marketing* during 7th International Conference on Quality, Reliability, Infocom Technology and Business Operations ICQRITBO', **2015.**
- Conferred with Amity Award for **Best Academician Research Paper** Presentation on the occasion of International Business school Conference IBSCON 2014 by Amity International Business School, Amity University, UP
- Awarded as **Young Promising Researcher** in the Field of Software Reliability and Technology Management by Society for Reliability Engineering, Quality and Operations Management (SREQOM), **2012.**
- Rajiv Gandhi National Fellowship, University Grants Commission, New Delhi, **2010-2011.**
- Qualified CSIR-NET (National eligibility Test) for lecturership held in June-**2010.**
- Secured 3rd rank in M.Phil. Course work in **2010.**
- Certified course on Statistical Package for social sciences (SPSS), **2008**
- Certified course on Computer Applications (March –August) **2008.**
- Secured overall 3rd rank in B.Sc (G) (I+II+III) in college, **2007**

Associations With Professional Bodies

Editorial Service

- **Guest Editor**, Special Issue*, "Mathematical techniques applied in engineering and healthcare",* Mathematics in Engineering, Science and Aerospace (MESA), Vol 10. (2), **2019.**
- **Guest Editor**, Special Issue "*Recent Trends of Modelling in Reliability, Quality and Technology Management*", International Journal of Mathematical Engineering and Management Sciences, Vol. 2(1), **2017.**
- **Guest Editor**, Special Issue *"Innovation Diffusion Process & Some Recent Trends in Network Modelling"*, Communications in Dependability and Quality Management-An International Journal, Vol 19 (1), **2016**.
- **Guest Editor**, Special Issue "*Advances in Reliability Engineering and Optimization",* Communications in Dependability and Quality Management-An International Journal, Vol 18 (4), **2015**.
- **Associate Editor**, International Journal of System Assurance and Engineering Management (Springer)
- **Editorial Review Board**, Amity Journal of Operations Management- An International, Biannual, Refereed Journal of Operations Management
- **Editorial Board Member**, International Journal of Mathematical Engineering and Management

Science
- **Editorial Board Member**, Journal of Graphic Era University

Membership

- **Life Member**, Operational Research Society of India (ORSI) (No: 1272/A/17/ML)
- **Life Member**, Society for Reliability Engineering, Quality and Operations Management (SREQOM)
- **Life Member**, Association of Inventory Academicians and Practitioners (AIAP)

Other Activities

- Participated in two-week (15 days) UGC Sponsored Refresher Course in Mathematics/ Operational Research/ Statistics and Computer Science (SRC) conducted by Centre for Professional Development in Higher Education (CPDHE), UGC-HRDC, University of Delhi from May 31st, 2019 to June 14, 2019 and obtained "A" grade

- Participated in One week (05 days) UGC Sponsored Short Term Course on Research Methodology conducted by Centre for Professional Development in Higher Education (CPDHE), UGC-HRDC, University of Delhi from December 18, 2018 to December 24, 2018.

- Participated in three-week (21 days) UGC Sponsored Refresher Course in Mathematical Sciences conducted by Centre for Professional Development in Higher Education (CPDHE), UGC-ASC, University of Delhi from November 26, 2015 to December 16, 2015 and obtained "A" grade

- Participated in four-week (24 days) UGC Sponsored Orientation Programme (OR-76) conducted by Centre for Professional Development in Higher Education (CPDHE), UGC-ASC, University of Delhi from June 9, 2014 to July 5, 2014 and obtained "A" grade

Extra Curricular Activities

- Founding member of the Chemistry Society in college, where I worked as its secretary for 2 consecutive years under the guidance of my professors.
- Served as a coordinator in college Fest throughout graduation.
- Captaincy in inter college CRICKET tournament-2006 under University of Delhi
- Won bronze medal in inter college HOCKEY tournament-2006 under University of Delhi
- Active member of NSS

(Dr Adarsh Anand)