

Research Methodology in Computer Science (AI800)

Dr. Mohammed Anbar



عرض توجيہي Orientation show



Who am I?



Dr. Mohammed Anbar

Senior lecturer at National Advanced IPv6 Centre of Excellence (NAv6), Universiti Sains Malaysia (USM)

2013	PhD in Advanced Internet Security and Monitoring. National Advanced IPv6 Centre of Excellence (NAv6) , Universiti Sains Malaysia (USM), Malaysia
2009	Master of Information Technology Universiti Utara Malaysia (UUM), Malaysia.
2007	Bachelor of Computer System Engineering AL-Azhar University, Gaza, Palestine .



Course details

Research Methodology in
Computer Science (AI800)

3 credit hours



Course details (cont.)

- This course offers an overview of essential concepts in research design, data collection, statistical analysis, result interpretation, and the preparation of final reports.
- Students will concentrate on the steps required for designing a research project or dissertation, with the course providing practical learning experiences in real-world scenarios.
- The course emphasizes the skills necessary for scientific writing and the presentation of both oral and written data, as well as research findings.



Course outcomes

Upon completion of this course, students will be able to:

- Demonstrate a solid understanding of research and research methodologies within the field of Computer Science.
- Analyse and assess the strengths and weaknesses inherent in various research methods commonly used in Computer Science.
- Effectively report research findings by writing technical articles and research papers.
- Demonstrate writing skills and make effective research proposal
- Develop the skills needed to critically review and evaluate research articles in the field of Computer Science.



Learning Resources

- Research Design. Qualitative, Quantitative, and Mixed Methods Approaches. By John W. Creswell, Fourth Edition. SAGE Publication, 2014.
- Research Methodology By Panneer Selvam R, 2nd Edition, PHI, 2014.
- Research Methods: The Basics, Nicholas Walliman, And Routledge, November 17, 2010, ASIN: B004OBZTGQ
- Projects in Computing and Information Systems: A Student's Guide, Christian Dawson, Pearson, (2nd Edition) Apr 29, 2009, ISBN-10: 0273721313.
- Gerald J. Alred, Handbook of Technical Writing (10th Edition), St. Martin's Press, 2011, ISBN: 978-1250004413
- Wayne C. Booth, Gregory G. Colomb, Joseph M. Williams, The Craft of Research, (Third Edition) 2008, ISBN: 0226065669, 0226065650



Lecture Structure

Module	Topic	Week #
1	Introduction to Research	1
2	Introduction to literature Review	2
3	Research Problem and objective Formulation	3
4	Research Methods in Computer Science – part 1	4
5	Research Methods in Computer Science – part 2	5
6	Research Proposal Writing	6
7	How to write scientific paper ?	7
8	Results Interpretation and Discussion	8
9	Ethical issues in Conducting Research	9
10	Research Tools and Software	10



Course Assessment



- ▶ coursework (60%)
- ▶ Final project (40%)



Thank You

