



Books, Articles, Papers & Presentations
MATTHEW A. CARR, Ph.D., P.E.
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BOOKS

- 2012 Principles of Naval Engineering: Propulsion and Auxiliaries, Naval Institute Press, Annapolis, MD, 2012 (ISBN 978-1-612511-104-7).
Editor of the entire textbook and author of five of the chapters.
- 2007 Technical reviewer for *Thermodynamics and Heat Powered Cycles: A Cognitive Engineering Approach*, Chih Wu, Nova Publishers, 2007 (ISBN 1-60021-034-1). Proofread many of the problems included in Professor Wu's book and provided technical feedback to him prior to submission by him to the publishers.

JOURNAL ARTICLES

- 2013 Kedzierski, M.A., **Carr, M.A.**, and Brown, J.S., Measurement and Prediction of Vapor-Space Condensation of Refrigerants on Trapezoidal-Finned and Turbo-C Geometries, *Journal of Enhanced Heat Transfer*, 20 (1): 59–71 (2013).
- 2013 **Carr, M.A.**, Thermodynamic Analysis of a Newcomen Steam Engine, *The International Journal for the History of Engineering & Technology*, 83 (2): 186-207 (2013).
- 2011 Cowart, J.S., **Carr, M.A.**, Luning-Prak, D., Stoulig, L.W., Moore, A.S., Caton, P.A. and Hamilton, L.J., High Cetane Fuel Combustion Performance in a Conventional Military Diesel Engine, *Society of Automotive Engineers Technical Paper #2011-01-0334*, Detroit, MI (April 2011).
- 2011 Cowart, J.S., **Carr, M.A.**, Luning-Prak, D., Stoulig, L., Moore, A., Caton P.A. and Hamilton, L.J., High Cetane Fuel Combustion Performance in a Conventional Military Diesel Engine, *SAE International Journal of Fuels and Lubricants*, 4: 34-47 (June 2011).
- 2010 Caton, P.A., **Carr, M.A.**, et al., Energy Recovery from Waste Food by Combustion or Gasification with the Potential for Regenerative Dehydration: A Case Study, *Energy Conversion and Management*, Vol. 51, Issue 6, pp. 1157-1169 (June 2010).
- 2003 Wu, C. and **Carr, M.A.**, Intelligent Computer-Aided Design Optimization of Heat Pumps, *Structural and Multidisciplinary Optimization*, Vol. 24, Number 6, pp. 457 – 463 (February 2003).
- 2002 **Carr, M.A.** and Brown, J.S., Container-Handling Crane: A First-Year Engineering Student Project, *The International Journal of Mechanical Engineering Education (IJMEE)*, Vol. 30, Number 4, pp. 298-306 (October 2002).
Note - This documented a design-build project I conducted with students at CUA.



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PAPERS AND PRESENTATIONS

- 2014 **Carr, M.A.**, *Aren't Units Part of the Problem?*, Proceedings of the 2014 American Society for Engineering Education Annual Conference & Exposition, Copyright © 2014, American Society for Engineering Education.
- 2012 **Carr, M.A.** and Cowart, J.S., *Thermodynamic Modeling of 18th Century Steam Engines*, Proceedings of the 2012 American Society for Engineering Education Annual Conference & Exposition, Copyright © 2012, American Society for Engineering Education.
- 2012 **Carr, M.A.**, Cristiano, M.V., and Caton, P., *The Newcomen Pumping Engine: A Capstone Design Project*, Proceedings of the 2012 American Society for Engineering Education Annual Conference & Exposition, Copyright © 2012, American Society for Engineering Education.
- 2011 **Carr, M.A.**, *Reciprocating Steam Turns 300*, American Society of Mechanical Engineers, Proceedings of the International Mechanical Engineering Conference and Exposition, IMECE 2011, Copyright © ASME 2011.
- 2011 **Carr, M.A.**, *Sketching, Drafting, & Developing Engineering Visualization Skills*, American Society for Engineering Education Annual Conference & Exposition, Copyright © 2011, American Society for Engineering Education.
- 2011 **Carr, M.A.**, *Rediscovering Reciprocating Steam*, American Society for Engineering Education Annual Conference & Exposition, Copyright © 2011, American Society for Engineering Education.
- 2011 **Carr, M.A.**, *Setting the Table – Building the Mechanical Engineering Foundation*, International Test & Evaluation Association (ITEA), 2011 Annual Conference, Annapolis, MD, July 2011.
- 2011 Hamilton, L.J., Williams, S.A., Kamin, R.A., **Carr, M.A.**, Caton, P.A. and Cowart, J.S., *Renewable Fuel Performance in a Legacy Military Diesel Engine*, ESFuelCell #2011-54101, proceedings of the ASME 5th International Conference on Energy Sustainability, Washington, DC, August 2011.
- 2004 Brown, J.S. and **Carr, M.A.**, *Internal Combustion Engine Demonstrator for First Year Introduction to Engineering Laboratory Course*, Proceedings of the 2004 American Society for Engineering Education Annual Conference & Exposition, Copyright © 2004, American Society for Engineering Education.
- 2004 **Carr, M.A.** and Link, R.E., *Teaching Engineering Codes & Standards in Capstone Design*, Proceedings of the Fall 2004 American Society for Engineering Education Middle Atlantic Section Conference, Copyright © 2004, American Society for Engineering Education.
- 2003 **Carr, M.A.**, *The Impact of Steam Innovations on Ship Design: An Abbreviated History of Marine Engineering*, Proceedings of the International Mechanical Engineering Conference and Exposition, IMECE 2003, Copyright © ASME 2003.