

Journal of STEM Education: Innovations and Research

Volume 12 • Issue 3 & 4 • April – June 2011

International Editorial Advisory Board	2
Editorial Review Board	3
Editorial	4
FEATURES	
WORKFORCE CENTRAL FLORIDA Sponsors Green Building Workshop and Job Shadow for Middle School Students	5
NSF GK-12 Program Must be Saved: What You Can Do to Help P.K. Raju and Ashley Clayson	6
Use of the LITEE Lorn Manufacturing Case Study in a Senior Chemical Engineering Unit Operations Laboratory Nithin Susan Abraham and James Patrick Abulencia	9
Implementation of an Industrial-Based Case Study as the Basis for a Design Project in an Introduction to Mechanical Design Course Ellen Lackey	17
Impact of an Engineering Case Study in a High School Pre-Engineering Course The Media-Enhanced Science Presentation Rubric (MESPR) Eugene Rutz and Michelle Shafer	26
The Application of an Engineering Design and Information Systems Case Study in a Senior Level Product Data Management Course Patrick E. Connolly	35
Evaluation of the Effectiveness of the Integration of a LITEE Case Study for a Freshman Level Mechanical Engineering Course at The University of Toledo Matthew Franchetti	46
Instructions for Authors	57
Contribution Form	58

The Journal of STEM Education: Innovations and Research (ISSN 1557-5284) is published by The Institute for STEM Education and Research, P.O. Box 4001, Auburn, AL 36831. www.jstem.org The Institute for STEM Education and Research is a non-profit entity. Periodicals postage rate paid at Auburn, AL and additional mailing offices.

CONTRIBUTIONS are greatly appreciated and are tax-exempt.

PERMISSION FOR USE: The copyright owner's consent does not extend to copying for general distribution, for promotion, for creating new works or for resale. Specific written permission must be obtained from the publisher for such copying.

Copyright © 2009 by The Institute for STEM Education and Research. It is a condition of publication that manuscripts submitted to this journal have not been published and will not be simultaneously submitted or published elsewhere. By submitting a manuscript, the authors agree that the copyright for their article is transferred to the publisher if and when the article is accepted for publication. The copyright covers the exclusive rights to reproduce and distribute the article, including reports, photographic reproductions, microfilm or any other reproduction of similar nature and translations. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, electrostatic, magnetic tape, photocopying, recording or otherwise, without permission in writing from the copyright holder.