

Curriculum Vitae

Jagjit (Jay) Singh

Industrial Technology, Orfalea College of Business,
Cal Poly State University, San Luis Obispo, CA 93407
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PROFESSIONAL EMPLOYMENT

09/2007 – present
Associate Professor, Industrial Technology, Orfalea College of Business, Cal Poly State University, San Luis Obispo, CA
Director, Packaging Program, Cal Poly State University, San Luis Obispo, CA
Principle Investigator, Cal Pack Labs (Fee-for-testing services), Cal Poly State University, San Luis Obispo, CA
Principle Investigator, Packaging Science & Technology Research Consortium, Cal Poly State University, San Luis Obispo, CA

08/2003 – 09/2007
Assistant Professor, Industrial Technology, Orfalea College of Business, Cal Poly State University, San Luis Obispo, CA
Director, Packaging Program, Cal Poly State University, San Luis Obispo, CA
Principle Investigator, Cal Pack Labs (Fee-for-service), Cal Poly State University, San Luis Obispo, CA

01/2003 – 08/2003
Instructor/Research Associate, School of Packaging, Michigan State University, East Lansing, MI

01/1995 – 12/2002
Instructor /Research Assistant, School of Packaging, Michigan State University, East Lansing, MI

EDUCATION

Michigan State University, East Lansing, MI
Ph.D. in Packaging Science, 2002
Dissertation Title: *Package Performance for Liquid Hazardous Materials in High Altitude Shipments*

Master of Science in Packaging Science, 1998
Thesis Title: *Evaluating Performance of Internal Packaging for Damage to Glassware*

University of Pune, India
Bachelor of Engineering in Electrical Engineering, 1992

ACADEMIC & PROFESSIONAL HONORS

- Editor-in-Chief** (January 2009 - present) - Journal of Applied Packaging Research • Publisher: DES^{tech} Publications, Inc. (ISSN: 1557-7244) • Subject: international forum for the dissemination of refereed research papers, review articles, tutorials and news about innovative and emerging technologies for the packaging industry.
 - Most Promising Scientific Work** - *Characterization and Compression Properties of Injection Carbon-Nanotube Composites* • 23rd International Association of Packaging Research Institutes' (IAPRI) Symposium, Windsor, UK, June 2007
 - Outstanding Industrial Technology Professor Award** - Region 6, National Association of Industrial Technology (NAIT), 2006
 - Division 1 Vice Chair & Co-Chair of the RFID Task Group**, committee D10.18 of ASTM (2007 – present)
 - Best Presentation by a Young Scientist** - *A Comparison of RFID (Radio Frequency Identification) Tag Performance for Fresh Produce Containers* • 22nd IAPRI World Symposium on Packaging, Campinas, Brazil, June 2005
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CAPABILITIES STATEMENT

Training, research and contract testing in the following areas of package development, analysis and evaluation:

- Closure Testing
- Distribution Environment Measurement and Simulation
- Dynamic Cushion Characteristics
- Dynamic Testing to Predict Performance
- Fragility Testing
- Life Cycle Assessment
- Mechanical Property Evaluation
- Package and Material Storage under Controlled Temperature and Humidity
- Package Burst Testing
- Package Design
- Package Integrity
- Product-Package Compatibility
- Radio Frequency Identification (RFID)
- Shock and Vibration Testing of Products and Packages
- Testing of Pallets, Reusable Racks and Single & Multiple-Use Containers
- Thermal Properties of Insulating Containers

ACADEMIC EXPERIENCE

Courses Currently Teaching at Cal Poly:

- IT 300: *Symposium Organization*
- IT 330: *Fundamentals of Packaging*
- IT 341: *Plastics Processes and Applications*
- IT 375: *Packaging Material and Product Testing*
- IT 400: *Special Problems for Advanced Undergraduate*
- IT 408: *Paper and Paperboard Packaging*
- IT 457: *RFID in Supply Chain Management*
- IT 475: *Packaging Performance Testing*
- IT 461: *Senior Project*
- IT 500: *Individual Study*
- IT 545: *Introduction to Solid Modeling and Rapid Prototyping*
- IT 570: *Advanced Topics in Packaging Technology*
- IT 598: *Industrial and Technical Studies Project*
- IT 599: *Industrial and Technical Studies Thesis*

Courses Taught/Co-taught at Michigan State University:

- PKG 410: *Distribution Packaging Dynamics*
- PKG 460: *Distribution Packaging and Performance Testing*
- PKG 440: *Robotics & Automotive Packaging*

PROFESSIONAL EXPERIENCE

Have served as part of consulting teams to over 75 national and international companies. Projects include developing packaging line systems, package design for product protection, evaluating package specifications and automation for packaging. Written over 100 reports on various studies done to test and evaluate packaging systems

Automotive Packaging

Ace Paper
Buckhorn
Ford Motor Co.
Mitsubishi Motors

Arca Systems
CHEP
Lansmont Corp.

Bosch
Denso Automotive
Macro Plastics

Pharmaceutical/Medical Packaging

CARGOpak
Morton Grove Pharmacy

HazmatPac
Wyeth Pharmaceuticals

LabelMaster

Food & Beverage Packaging

Anheuser
Coca Cola
Johnsonville Sausage
Knouse Foods Inc.
Therma-A-Snap

Busch
Coors
Keep Cool
Land O' Lakes
Pepsi

Aurora Foods
Gray & Co.
Kellogg's Company
Nestle'
Fresh Food Concepts

Consumer Products

Avon
Columbia House
Libbey Glass
Simmons
PPG Glass
Ziploc

Barnes and Noble
Creative Industries
Murray Equipment Inc.
General Electric
Yorktowne Cabinets

Chase
Ethan Allen Inc.
Proflowers.com
Hemlock
Ervin Industries

Containers and Pallets

Airdex International
Buckhorn
CHEP
Greystone
Labelmaster
Monoflo
Primary Packaging
Sol Plastics

Arca Systems
Calpine Containers
Cookson
Hays
Menasha-Orbis
Nucon
Rehrig Pacific
TKV Containers

Batelle Corporation
CARGOPak
Dometic Corporation
HAZMATPAC
Modular Plastics
Pioneer Hi-Bred
Rheem

Packaging Materials

Automated Packaging Systems
Geopax Limited
Paneles Aislantes

Dow Cargill LLC
Loersch, USA

E-Tech
Mobil Chemicals

Distribution Environments

ASTM
FAA
RPCC
USPS

DHL
FedEx
TAPPI

DOT
ISTA
UPS

EXPERT WITNESS

Serve as a consultant to various law firms by providing expert opinion and testimony in the areas of packaging machinery, damage and injury during transportation, design and evaluation of packages. More info at <http://www.packlawusa.com/>

PROFESSIONAL ASSOCIATIONS

- American Society for Testing and Materials (ASTM), Member
- Institute of Packaging Professional (IOPP), Member
- International Corrugated Packaging Foundation, Member
- National Association for Industrial Technology (NAIT),
- Association of Independent Corrugated Converters (AICC), Member
- International Association of Packaging Research Institutes (IAPRI), Full Member
- International Safe Transit Association (ISTA), Member
- Packaging Machinery Manufacturers Institute (PMMI),

- Member
- Paperboard Packaging Alliance (PPA), Member
- PolyGAIT-RFID Research and Development Laboratory, Cal Poly, Founding Member
- Western Packaging Association (WPA), Honorary Member

- Member
- The National Institute of Packaging Handling and Logistics Engineers (NIPHLE), Member, Academia POC
- Tube Council, Associate Member

REFEREED PUBLICATIONS (blind peer reviewed)

*Corresponding Author

1. Singh, S. P., Joneson, E., Singh, J., Grewal, G. “*Dynamic Analysis of Less-Than-Truckload Shipments and Test Method to Simulate This Environment*,” Journal of Packaging Technology and Science, Special Issue: Environmental Data Recording, Analysis and Simulation of Transport Vibrations, Vol. 21 Issue 8, pp. 453 – 466, December 2008
2. Singh, J.*, Manley, J., Wallace, F., Olsen, E., Singh, S. P. “*The Effect of Ventilation and Hand Holes on Loss of Compression Strength in Corrugated Boxes*,” Journal of Applied Packaging Research, Vol. 2, No. 4, June 2008
3. Singh, J.*, Holtz, R., Singh, S. P., Saha, K. “*Effect of Unitization and Product Types on Readability of Tagged Packages of Consumer Goods*,” Journal of Applied Packaging Research, Vol. 2, No. 3, March 2008
4. Curtzwiler, G., J. Singh, J. Miltz, and J. Doi, K. Vorst. “*Characterization and Compression Properties of Injection Molded Carbon Nanotube Composites*,” Journal of Applied Polymer Science, Vol. 109, Issue 1, pp. 218-225, March 2008
5. Jarimopas, B., Pushpariksha, P., Singh, S. P., Singh, J*. “*Post-Harvest Damages and Mechanical and Light Properties of Fresh Mangosteen Fruit as Related to Quality Grading*,” ASTM, Journal of Testing and Evaluation, Volume 36, Issue 2, March 2008
6. Singh, P., McCartney, M., Singh, J.*, Clarke, R. “*RFID Research and Testing for Packages of Apparel, Consumer Goods and Fresh Produce in the Retail Distribution Environment*,” Journal of Packaging Technology and Science, Vol. 21, Issue 2, pp. 91 – 102, March 2008
7. Singh, J.*, Rowland, C., Olsen, E. “*Diffuse versus Directional Brightness Measurement Comparison for Paper*,” Journal of ASTM International, Vol. 5, Issue 2, February 2008
8. Singh, S. P., Burgess, G., Singh, J.* “*Performance Comparison of Thermal Insulated Packaging Boxes, Bags and Refrigerants for Single Parcel Shipments*,” Journal of Packaging Technology and Science, Vol. 21, Issue 1, pp. 25 – 35, January/February 2008
9. Singh, J.*, Singh, S. P., Bainbridge, P. Olsen, E. “*Variability in Compression Strength and Deflection of Corrugated Containers as a Function of Positioning, Operators, and Climatic Conditions*,” Journal of Applied Packaging Research, Vol. 2, No. 2, December 2007
10. Singh, S. P., Singh, J.*, Gaur, P., Saha, K. “*Measurement and Analysis of Vibration Levels on Warehouse and Retail Store Material Handling Equipment*,” Journal of Applied Packaging Research, Vol. 2, No. 2, December 2007
11. Singh, J.*, Deupser, C., Olsen, E., Singh, S. P. “*An Examination of the Variables Affecting RFID Tag Readability in a Conveyor Belt Environment*,” Journal of Applied Packaging Research, Vol. 2, No. 2, December 2007
12. Singh, S. P., Sandhu, A., Singh, J*, Joneson, E. “*Measurement and Analysis of Truck and Rail Shipping Environment in India*,” Journal of Packaging Technology and Science, Vol. 20, Issue 6, pp. 381 – 392, November/December 2007
13. Singh, J.*, Singh, S. P., Voss, T., Saha, K. “*A Study of the Effect of Pictorial Markings and Warning Labels on Handling of Packages in the DHL Single Parcel Environment*,” Journal of Packaging Technology and Science, Accepted for print. Published online, DOI: 10.1002/pts.800, November 2007
14. Rissi, G. O., Singh S. P., Burgess, G., Singh, J. “*Measurement and Analysis of Truck Transport Vibration Levels in Brazil*,” Journal of Packaging Technology and Science, Vol. 21, Issue 4, pp. 231 – 246, October 2007

15. Jarimopas, B., Singh, S. P., Sayasoonthorn, S., Singh, J.* “*Comparison of Package Cushioning Materials to Protect Post-Harvest Impact Damage to Apples.*” Journal of Packaging Technology and Science, Vol. 20, Issue 5, pp. 315 – 324, September/October 2007
16. Jarimopas, B., Toomsaengtong, S., Singh, S. P., Singh, J.*, Sothornvit, R. “*Development of Wholesale Packaging to prevent Post-Harvest Damage to Rose Apples,*” Journal of Applied Packaging Research, Vol. 2, No. 1, September 2007
17. Singh, J.*, Ferrier, C., Singh, P. “*Measurement and Analysis of the Shocks Generated During Egg Production,*” Journal of Applied Packaging Research, Vol. 2, No. 1, September 2007
18. Singh, S. P., Chonhenchob, V., Chantarasomboon, Y. and Singh, J.* “*Testing and Evaluation of Quality Changes of Treated Fresh-Cut Tropical Fruits Packaged in Thermoformed Plastic Containers,*” Journal of Testing and Evaluation, Vol. 35, Issue 5, September 2007
19. Singh, J.*, Singh, S. P., Burgess, G., Saha, K., “*Measurement, Analysis and Comparison of the Parcel Shipping Shock and Drop Environment of United States Postal Service with Commercial Carriers.*” Journal of Testing and Evaluation, Vol. 35, Issue 4, July 2007
20. Singh, S. P., Burgess, G., Singh, J.*, Lockhart, H. “*High Altitude Testing and Evaluation of Liquid Pharmaceutical Glass and Plastic Bottles to Detect Leaks,*” Journal of ASTM International, Vol. 4, Issue 3, March 2007
21. Jarimopas, B., Sayasoonthorn, S., Singh, S. P., Singh, J.* “*Test Method to Evaluate Bruising During Impacts to Apples and Compare Cushioning Materials,*” Journal of Testing and Evaluation, Vol. 35, Issue 3, May 2007
22. Singh, J.*, Vorst, K., Singh, S.P., Lao, M. “*The Relevance of Drop Tester Accuracy,*” Journal of ASTM International, Vol. 4, Issue 3, March 2007
23. Singh, J.*, Singh, P., Joneson, E. “*Measurement and Analysis of U.S. Truck Vibration for Leaf Spring and Air Ride Suspensions and Development of Tests to Simulate these Conditions.*” Journal of Packaging Technology and Science, Vol. 19, Issue 6 , pp. 309 – 323, November/December 2006
24. Auras, R., Singh, P., Singh, J.* “*Performance Evaluation of PLA against Existing PET and PS Containers,*” Journal of Testing and Evaluation, Vol. 34, Issue 6, November 2006
25. Singh, P., Chonhenchob, V, Singh, J. “*Life Cycle Inventory and Analysis of Reusable Plastic Containers and Display-Ready Corrugated Containers Used for Packaging Fresh Fruits and Vegetables,*” Journal of Packaging Technology and Science, Vol.19, Issue 5 , pp. 279 – 293, September/October 2006
26. Singh, P., Burgess, G., Singh, J.*, Kremer, M. “*Measurement and Analysis of the Next-day Air Shipping Environment for Mid-sized and Lightweight Packages for DHL, FedEx and United Parcel Service,*” Journal of Packaging Technology and Science, Vol. 19, Issue 4, pp. 227 – 235, July/August 2006
27. Singh, J.*, Brar, N., Fong, C. “*The State of RFID Applications in Libraries.*” Information Technology and Libraries Journal, Vol. 25, Issue No. 1, pp. 24-32, March 2006
28. Manocher D., Singh, J. “*The Use of RFID in Manufacturing and Packaging Technology Laboratories.*” Society of Manufacturing Engineers, Technical Paper, Product ID: TP05PUB237, Published November 9, 2005
29. Auras, R., Singh, P., Singh, J. “*Evaluation of Oriented Poly(lactide) Polymers vs. Existing PET and Oriented PS for Fresh Food Service Containers.*” Journal of Packaging Technology and Science, Vol. 18, Issue 4, pp. 207 – 216, July/August 2005
30. Singh, P., Singh, J. “*Pictorial Markings and Labels for Safe Transport and Handling of Packaged Goods.*” Journal of Packaging Technology and Science, Vol. 18, Issue 3, pp. 133 – 140, May/June 2005
31. Singh, P., Burgess, G., Singh, J. “*Measurement and Analysis of the Small and Light Weight Parcel Shipping Environment.*” Journal of Testing and Evaluation, Vol. 32, Issue 5, September 2004
32. Singh, P., Burgess, G., Singh, J. “*A New Test Method and Pictorial Markings for Packages Containing Liquid Dangerous Goods in High Altitude Shipments,*” Journal of Testing and Evaluation, Vol. 32, Issue 5, September 2004
33. Singh, P., Burgess, G., Singh, J. “*Package Performance Testing of Dangerous Goods in High Altitude Shipments,*” Journal of Packaging

Technology and Science, Vol. 16, Issue 3, pp. 119 – 130, May/June 2003

34. Singh, P., Burgess, G., Singh, J. “*Measurement and Analysis of the Second-day Air Small and Light-weight Package Shipping Environment within Federal Express,*” Journal of Packaging Technology and Science, Vol. 17, Issue 3, pp. 119-127, May 2004
 35. Singh, P., Burgess, G., Singh J. “*Package Performance Testing of Dangerous Goods in High Altitude Shipments?*” HAZMAT Packager & Shipper, Vol. 13, Issue 6, March/April 2003
 36. Singh, P., Burgess, G., Singh, J., Pratheepthinthong, S. “*Packaging Specification for Corrugated Boxes with Heavy Flowable Product in Single Parcel Shipments,*” Journal of Testing and Evaluation, Vol. 29, Issue 6, pp. 570-578, November 2001
 37. Singh, P., Burgess, G. Singh, J., Pratheepthinthong, S. “*Develop Corrugated Board Performance Specifications for Boxes Containing Heavy Flowable Items,*” Journal of Environmental Engineering, Vol. 14, Issue 3, pp. 53-58 September 2001
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BOOK CHAPTER

1. Singh, J., Singh Paul. “*Food Packaging for Damage Reduction During Transportation and Handling,*” Handbook of Farm, Dairy, and Food Machinery, William Andrews Publishing, ISBN: 0-8155-1538-3
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SUBMITTED PUBLICATIONS (blind peer review)

*Corresponding Author

1. Jarimopas, B., Meeklangsaen, W., Singh, S. P., Singh, J.* “*Physical Characteristics and Image Properties of Sweet Tamarind Pod as Related to Quality Sorting,*” Journal of Testing and Evaluation
 2. Terdwongworakul, A., Chaiyapong, S., Singh, S. P., Singh, J.* “*Determination of Physical, Acoustical, Mechanical and Chemical Properties of Fresh Young Coconut Fruit for Maturity Separation,*” Journal of Testing and Evaluation
 3. Singh, J.*, Attema, A., Singh, S.P., and Vorst, K. “*Comparison of Manufacturer’s Joint Fastening Techniques for Corrugated Boxes and their Effect on Box Strength,*” Journal of Applied Packaging Research
 4. Singh, J.*, Kisch, R., Chhun, J., Olsen, E. “*Innovation - A Key in Cutting Back the Corrugated Fiberboard Carbon Footprint,*” Journal of Applied Packaging Research
 5. Singh, J.*, Olsen, E., Vorst, K., Tripp, K. “*RFID Tag Readability Issues with Palletized Loads of Consumer Goods,*” Journal of Packaging Technology and Science
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TRADE JOURNAL CONTRIBUTIONS

1. Singh, J. “*Nanotech and Food,*” Packaging World, Summit Publishing Company, October 2008
 2. Singh, J. “*Paperboard, a popular packaging solution in the US,*” Onboard Magazine, Dun and Bradstreet India, Issue 16, April 2007
 3. Singh, J. “*Knowing the Terrain: Designing Packages to Survive Uncertain Global Supply Chains,*” The Front Panel, Package Design Magazine, March 2007, pg. 4
 4. Singh, J. “*Pharmaceutical Packaging is Experiencing Rapid Change,*” The Front Panel, Packaging Design Magazine, April 2006, Vol. 4 No. 3, pg. 6
 5. Singh, J. “*A Healthy Knowledge of Package Testing and Testers Can Help Your Package Go a Long Way,*” The Front Panel, Packaging Design Magazine, March 2005, Vol. 3 No. 2, pg. 8
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REFEREED CONFERENCE PROCEEDINGS

1. Singh, S. P., Stallings, J., Saha, K., Singh, J. “*Measurement and Analysis of Temperature and Pressure in High Altitude Shipments,*” International Transport Packaging Forum, March 17-20, 2008, Orlando, Florida
 2. Singh, S. P., Chiang, K., Saha, K., Singh, J. “*Dynamic Analysis of “Smalls” in FedEx Next Day Air Shipment,*” International Transport Packaging Forum, March 17-20, 2008, Orlando, Florida
 3. Singh, S. P., Singh, J. “*Measurement and Analysis of Global Truck, Rail and Parcel Shipments,*” Dimensions.06, The International Forum on Transport Packaging, April, 2006, San Antonio, Texas
 4. Brar, N., Singh, J. “*State of RFID Applications in Libraries,*” California Academic & Research Libraries April 20-23, 2006 Conference, Monterey Bay, California
 5. Singh, J., Singh, S. P., Sonchaeng, U.. “*Consumer Trends in the E-Grocery Markets in the U.S.,*” Proceedings of The Fifth International Conference on Electronic Business, Hong Kong, December 5-9, 2005
 6. Singh, J., Singh, S. P. “*Optimizing Package Design to Reduce Product Damage,*” Proceedings of NAIT Convention, November 16 - 19, 2005, St. Louis, Missouri
 7. Djassemi, M., Singh, J. “*The Use of RFID in Manufacturing and Packaging Technology Laboratories,*” International Conference on Manufacturing Engineering Education at Cal Poly, San Luis Obispo, CA, June 22-25, 2005
 8. Singh, S. P., Singh, J. “*Case Studies: Testing and Development of New/Modified Packaging to Address Shipping Challenges,*” Packaging Services Expo, Chicago, May 10, 2005
 9. Auras, R., Singh, S. P., Singh, J. “*Evaluation of OPLA Polymers with Existing PET and OPS for Fresh Food Service Containers*” Proceedings of Global Plastics Environmental Conference (GPEC), February 23-25, 2005, Atlanta, GA
 10. Singh, J., Singh, S. P. “*Pictorial Markings for Safe Transport and Handling of Packaged Goods,*” Proceedings of NAIT, October 20-23, 2004, Louisville, Kentucky
 11. Singh, J., Singh, S. P. “*Designing and Optimizing Packaging,*” Proceedings of Parcel Shipping & Distribution Forum, October 4-6, 2004 in Chicago, Illinois
 12. Singh, J., Singh, S. P. “*Measurement and Analysis of the Small Size and Light Weight Parcel Shipping Environment?*”. Proceedings of Dimensions.04, The International Forum on Transport Packaging, April, 2004, Orlando, Florida
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CONFERENCE PROCEEDINGS

1. Singh, J., Singh, Kisch, R., Chhun, J., Olsen, E. “*Innovation by Design – The Key to Cutting Back the Carbon Footprint,*” 16th IAPRI World Conference on Packaging, June 8-12, 2008, Bangkok, Thailand
2. Singh, J., Singh, S. P., Bainbridge, P. Olsen, E. “*Variability in Compression Strength and Deflection of Corrugated Containers as a Function of Positioning, Operators, and Climatic Conditions,*” 16th IAPRI World Conference on Packaging, June 8-12, 2008, Bangkok, Thailand
3. Curtswiler, G., Vorst, K., Singh, J., Brown, W. “*Characterization and Compression Properties of Injection Carbon-Nanotube Composites?*” at the 23rd International Association of Packaging Research Institutes’ Symposium, Windsor, UK, 3-5 September, 2007
4. Singh, S. P., Singh, J., McCartney, M., Clarke, R. “*RFID - Will It Meet Global Requirement,*” Asian Packaging Conference, 12-13 December, 2006, Mumbai, India

5. Joneson, E., Singh, S. P., Singh, J., "Developing Safe Loading and Damage Reduction Methods for Less than Truck Load Shipments," 15th IAPRI World Conference on Packaging, October 3-5, 2006, Tokyo, Japan
6. Singh, J., Vorst, K., Singh, S. P., Lao, M. "The Relevance of Drop Tester Accuracy," 15th IAPRI World Conference on Packaging, October 3-5, 2006, Tokyo, Japan
7. Singh, S. P., Sandhu, A., Singh, J., Joneson, E. "Measurement and Analysis of Global Truck, Rail and Parcel Shipments," 15th IAPRI World Conference on Packaging, October 3-5, 2006, Tokyo, Japan
8. Singh, J., Vorst, K., Keif, M., Jacobson, J. "Printing Sustainability on Biodegradable Film," 15th IAPRI World Conference on Packaging, October 3-5, 2006, Tokyo, Japan
9. Vorst, K., Singh, J., Starnes, C. "Package Sustainability - Performance of Biodegradable PLA Polymers at Elevated Temperature Applications," 15th IAPRI World Conference on Packaging, October 3-5, 2006, Tokyo, Japan
10. Singh, J., Singh, S. P. "Pictorial Markings for Safe Transport and Handling of Packaged Goods," 22nd IAPRI World Symposium on Packaging, June, 2005, Brazil
11. Singh, S. P., McCartney, M., Singh, J. "A Comparison of RFID (Radio Frequency Identification) Tag Performance for Fresh Produce Containers," 22nd IAPRI World Symposium on Packaging, June, 2005, Brazil
12. Singh, J., Singh, S. P. "Comparison of Leaf Spring and Air Ride Suspension for Truck Vibration Levels," 22nd IAPRI World Symposium on Packaging, June, 2005, Brazil
13. Singh, J., Singh, S. P. "Performance Comparison of Thermal Insulated Packaging Systems for Single Parcel Shipments," 15th IAPRI World Conference on Packaging, October 3-5, 2006, Tokyo, Japan
14. Singh, J., Singh, S. P., Gaur, P. "Measurement, Analysis and Comparison of the Express and Priority Parcel Shipping Environment of USPS with Commercial Carriers," 15th IAPRI World Conference on Packaging, October 3-5, 2006, Tokyo, Japan
15. Singh, J., Singh, S. P. "Measurement and Analysis of the Small Size and Light Weight Parcel Shipping Environment". Proceedings of 14th IAPRI World Conference on Packaging, June, 2004, Stockholm Sweden
16. Singh, S. P., Auras, R., Singh, J. "Package Sustainability - Performance Evaluation of New Biodegradable (PLA) with Existing PET and OPS for Food Service Containers". Proceedings of 14th IAPRI World Conference on Packaging, June, 2004, Stockholm, Sweden
17. Singh, S. P., Burgess, G., Singh, J. "Package Performance for Hazardous Materials in High Altitude Shipments," Proceedings of the 13th IAPRI Conference on Packaging, E. Lansing, Michigan, June 23-28, 2002
18. Singh, S. P., Singh, J. "E-Commerce Distribution of Fresh Produce and Flowers," Proceedings of the 13th IAPRI Conference on Packaging, E. Lansing, Michigan, June 23-28, 2002
19. Singh, S. P., Singh, J., Camarillo, J. "Logistical Challenges for E-commerce," Proceedings of 12th IAPRI International Packaging Logistics, Warsaw, Poland, 2001

CONFERENCE/WORKSHOP PRESENTATIONS & SESSION CHAIR

1. Developed, organized and co-presented "Workshop with Focus on Distribution Packaging," ASTM Committee D10 on Packaging's University Liaison Subcommittee, April 2007. The 2 hour program included presentations from key researchers from Cal Poly State University, Federal Aviation Administration and Michigan State University on the latest projects on transportation vibration measurement, single parcel shipping environment and dangerous goods shipments.
2. Speaker "Innovation by Design – The Key to Cutting Back the Carbon Footprint," 16th IAPRI World Conference on Packaging, June 8-12, 2008, Bangkok, Thailand

3. Speaker "*Variability in Compression Strength and Deflection of Corrugated Containers as a Function of Positioning, Operators, and Climatic Conditions*," 16th IAPRI World Conference on Packaging, June 8-12, 2008, Bangkok, Thailand
4. Speaker "*Measurement and Analysis of Temperature and Pressure in High Altitude Shipments*," The 2008 International Transport Packaging Forum, March, 2008, Orlando, Florida
5. Co-speaker "*Dynamics of Smalls*," The 2008 International Transport Packaging Forum, March, 2008, Orlando, Florida
6. Session Chair, Technical sessions on *Bio-plastics* and *Packaging-general* at 15th IAPRI World Conference on Packaging, October 3-5, 2006, Tokyo, Japan. Only non-board member honored to do this
7. Co-speaker, "*Developing Safe Loading and Damage Reduction Methods for Less than Truck Load Shipments*," 15th IAPRI World Conference on Packaging, October 3-5, 2006, Tokyo, Japan
8. Speaker, "*The Relevance of Drop Tester Accuracy*," 15th IAPRI World Conference on Packaging, October 3-5, 2006, Tokyo, Japan
9. Speaker, "*Measurement and Analysis of Global Truck, Rail and Parcel Shipments*," 15th IAPRI World Conference on Packaging, October 3-5, 2006, Tokyo, Japan
10. Co-speaker, "*Printing Sustainability on Biodegradable Film*," 15th IAPRI World Conference on Packaging, October 3-5, 2006, Tokyo, Japan
11. Co-speaker, "*Package Sustainability - Performance of Biodegradable PLA Polymers at Elevated Temperature Applications*," 15th IAPRI World Conference on Packaging, October 3-5, 2006, Tokyo, Japan
12. Co-speaker, "*Performance Comparison of Thermal Insulated Packaging Systems for Single Parcel Shipments*," 15th IAPRI World Conference on Packaging, October 3-5, 2006, Tokyo, Japan
13. Speaker, "*Measurement, Analysis and Comparison of the Express and Priority Parcel Shipping Environment of USPS with Commercial Carriers*," 15th IAPRI World Conference on Packaging, October 3-5, 2006, Tokyo, Japan
14. Speaker, "*Paper-based Packaging Design Considerations*," Digital Prepress for Flexography Workshop, Graphic Communication Institute at Cal Poly, May 31-June 2, 2006
15. Speaker, "*Measurement and Analysis of Global Truck, Rail and Parcel Shipments*," Dimensions.06, The International Forum on Transport Packaging, April, 2006, San Antonio, Texas
16. Speaker, "*Consumer Trends in the E-Grocery Markets in the U.S.*," Proceedings of The Fifth International Conference on Electronic Business, Hong Kong, December 5-9, 2005
17. Speaker, "*Optimizing Package Design to Reduce Product Damage*," NAIT Convention, St. Louis, Missouri, November 16 - 19, 2005
18. Speaker, "*6 Steps to a Successful Package Development*," Digital Prepress for Flexography Workshop, Graphic Communication Institute at Cal Poly, 26-28 September, 2005
19. Co-speaker, "*The Use of RFID in Manufacturing and Packaging Technology Laboratories*," International Conference on Manufacturing Engineering Education at Cal Poly, San Luis Obispo, CA, June 22-25, 2005
20. Speaker, "*Pictorial Markings for Safe Transport and Handling of Packaged Goods*," 22nd IAPRI World Symposium on Packaging, June, 2005, Brazil
21. Speaker, "*A Comparison of RFID (Radio Frequency Identification) Tag Performance for Fresh Produce Containers*," 22nd IAPRI World Symposium on Packaging, June, 2005, Brazil, Best Presenter Award

22. Speaker, "*Comparison of Leaf Spring and Air Ride Suspension for Truck Vibration Levels*," 22nd IAPRI World Symposium on Packaging, June, 2005, Brazil
23. Co-speaker, "*Case Studies: Testing and Development of New/Modified Packaging to Address Shipping Challenges*," Packaging Services Expo, 16 - 18 May 2005, Chicago, IL
24. Speaker "*Measurement and Analysis of the Small Size and Light Weight Parcel Shipping Environment*". 14th IAPRI World Conference on Packaging, June, 2004, Stockholm Sweden
25. Co-speaker "*Package Sustainability - Performance Evaluation of New Biodegradable (PLA) with Existing PET and OPS for Food Service Containers*". 14th IAPRI World Conference on Packaging, June, 2004, Stockholm, Sweden
26. Speaker, "*Measurement and Analysis of the Small Size and Light Weight Parcel Shipping Environment*". Dimensions.04, The International Forum on Transport Packaging, April, 2004, Orlando, Florida
27. Speaker, "*Predicting Long Term Compression Strength of Corrugated Boxes*", National Institute of Packaging, Handling, & Logistics Engineers, Training Conference in Packaging Handling & Logistics, Reno, Nevada, November, 2003
28. Speaker, "*Package Performance for Hazardous Materials in High Altitude Shipments*", 13th IAPRI World Conference on Packaging, East Lansing, Michigan, June 2002
29. Co-speaker, "*E-Commerce Distribution of Fresh Flowers*", 13th IAPRI World Conference on Packaging, East Lansing, Michigan, June 2002
30. Speaker, "*Shock, Vibration and Compression Testing*", "Packaging Basics", Seminar, School of Packaging, East Lansing, Michigan, January, 2002
31. Speaker, "*Returnable versus Corrugated Containers*", "Buying for the Future: Purchasing and Environmental Sustainability" Seminar, East Lansing, Michigan, May 2001
32. Co-speaker, "*Enhancing Meat and Seafood Merchandising Through Innovative Packaging Concepts*", "Packaging and Distribution of Perishables: Fresh Produce, Meat, and Seafood" Seminar, Monterey, California, August, 2001
33. Co-speaker, "*Trends in Perishable Packaging: Direct to Consumer delivery of Perishables*", "Packaging and Distribution of Perishables: Fresh Produce, Meat, and Seafood" Seminar, Monterey, California, August, 2001

REVIEWER

1. Journal of Polymers and the Environment, Publisher: Springer Netherlands, ISSN: 1566-2543 (Paper) 1572-8900 (Online), Subject: Chemistry and Materials Science, Earth and Environmental Science
2. Journal of Packaging Technology and Science, Publisher: John Wiley & Sons, Ltd., ISSN 0894-3214, Online ISSN: 1099-1522, Subject: publication of research papers and review articles about developments in packaging
3. The Journal of Business and Management, published by the Chapman University Argyros School of Business in partnership with the Western Decision Sciences Institute (WDSI)
4. Journal of Testing and Evaluation, Published by ASTM International, ISSN: 0090-3973, Subject: a multidisciplinary forum for applied sciences and engineering
5. The Wiley Encyclopedia of Packaging Technology, Published by John Wiley & Sons, Ltd., ISBN: 978-0-471-06397-1
6. Journal of Applied Packaging Research, Published by DEStech Publications, Inc., ISSN: 1557-7244, Subject: international forum for the dissemination of refereed research papers, review articles, tutorials and news about innovative and emerging technologies for the packaging industry.

EDITOR-IN-CHIEF

1. Journal of Applied Packaging Research, Publisher: DEStech Publications, Inc., ISSN: 1557-7244, Subject: international forum for the dissemination of refereed research papers, review articles, tutorials and news about innovative and emerging technologies for the packaging industry.

EDITORIAL BOARD

1. Ambalaj Bülteni – The Packaging Bulletin: Packaging Manufacturers Association in Turkey, Subject: This magazine that is published bimonthly in Turkish and in English has an intensely professional content and is distributed to about 3.000 people including top executives and technical and administrative representatives of companies that produce and use packaging, public organizations related to packaging, people and organizations that carry out training and academic work.

EXTERNAL ADVISOR

1. Master's Project, “*Informing Packaging Design Decisions At Toyota Motor Sales Using Life Cycle Assessment*”, Donald Bren School of Environmental Science and Management, University of California, Santa Barbara, 2007
2. Master's Project, “*RFID Antenna Coverage Optimization*,” Industrial and Manufacturing Engineering, Cal Poly State University, San Luis Obispo, 2008

SERVICE ACTIVITIES

1. Session Chair, Technical sessions on Bio-plastics and Packaging-general at 15th IAPRI World Conference on Packaging, October 3-5, 2006, Tokyo, Japan. *Only non-board member honored to do this*
2. Scientific Committee on Distribution and Transport Packaging for the 24th IAPRI World Packaging Symposium, Greenville, SC, May 17-20, 2009
3. Director, Packaging Program, Cal Poly (2003-present)
4. Disciplinary Representative (Orfalea College of Business) for the CSU Lower Division Transfer Pattern (LDTP) committee (2007-present)
5. Member of Faculty Review Committee for Industrial Technology (2006-present)
6. Member of International Partnerships Task Force, OCOB (2006-2007)
7. Member of Provost's Task Force on the Future of the Library, Cal Poly (2006-2007)
8. Member of Orfalea Ad Hoc Committee (2003-present)
9. Member of Student Affairs Committee (2003-2004)
10. Primary Investigator, Cal Pack Labs (2003-present)
11. Advisor, Poly Pack Student Club (2003-present), oversee organization of the 3-day Annual Packaging Symposium at Cal Poly
12. Advisor, Cal Poly Packaging Association (2003-present), take 10-20 students to Pack-Expo in Las Vegas and Chicago every other year

13. Advisor, Indian Students Association, Cal Poly (2004-present)
14. Member of Packaging Advisory Board (2003-present)
15. Member of Industrial Technology Advisory Board (2003-present)
16. Academic POC, National Institute of Packaging, Handling and Logistics Engineers (NIPHLE) (2003-present)
17. Advisor for Cal Poly student entries, Italian Packaging Technology Awards (IPTA) (2003-present)
18. Advisor for Cal Poly student entries, Association of Independent Corrugated Converters (AICC) Student Challenge (2003-present)
19. Advisor for “Best-of-the-Best” AICC National Satellite Student Competition (2003-present)
20. Advisor for Cal Poly student entries, Paperboard Packaging (PPA) Alliance Student Challenge (2003-present)
21. Co-advisor for Cal Poly student entries, Flexible Packaging Association (FPA) Design Challenge (2005-present)
22. Judge, Industrial Quality Assurance (IT 403), The Coffee Project (2006)
23. Judge, Applied Industrial Operations (IT 407), Class Project (2003-present)
24. Judge, Packaging development (IT 435), Class Project, (2005-06)
25. Open House Activities (2003-present)
26. WOW Week Activities (2003-present)
27. Liaison for Packaging Industry Recruitment for Co-op, Internship and Permanent Positions (2003-present)
28. Presented a slide show and discussion on Indo-Pak Relations to The International Association of Students in Economics and Business Management (AIESEC) in 2006
29. Seek equipment and monetary donations from the Packaging Industry on behalf of the Packaging Program (2003-present)
30. Presented on RFID Research Initiatives at Cal Poly at the Packaging Management Council meeting at Healdsburg, CA on March 15, 2005
31. Provide guest lectures for Dr. Hany Khalil (Food Science), Lisa Simon and Dr. Chris Carr (Business) and Drs. Penny Osmond and Malcolm Keif (Graphic Communications) on Packaging related topics
32. Chaperoned 8 packaging award winners from the US (including 1 from Cal Poly) to a 2 week trip to Italy
33. Make presentations to third graders from Santa Lucia School, Templeton on Indian cultures and traditions
34. Work with inventors and entrepreneurs in packaging related projects

GRANT WRITING (Awarded)

1. Boeing-Rocketdyne grant for *RFID Starter Kit and Training*, 2004, \$6,000
2. State Faculty Support Grant with a matching grant from OCOB for academic year 2004-05, *Radio Frequency Identification (RFID) Application for Media Management of a Library System*. \$12,400

3. State Faculty Support Grant, with a matching grant from OCOB for academic year 2005-06, *Laboratory Requirements for Evaluating Read Characteristics for RFID Tagged Consumer Product in a Packaging/Warehouse Environment*. \$11,000
 4. California Central Coast Research Partnership grant for academic year 2005-06, *RFID for Supply Chains: Multidisciplinary RFID Research*. \$11,500
 5. Center for Teaching and Learning, Cal Poly grant for academic year 2005-06, *RFID (Radio Frequency Identification) in Supply Chain Management*. \$5,700
 6. OCOB Graduate On-Line Course development Summer Grant for academic year 2005-06, *Develop a New Hybrid Solid modeling course for MS in I & TS*. \$3,500
 7. OCOB Special Travel Grant for *SolidWorks® Training* for academic year 2005-06. \$2,200
 8. OCOB Summer Research Grant for academic year 2005-06, *Global Transport Vibration Measurement Study: India*. \$5,000
 9. International Corrugated Packaging Foundation grant for academic year 2006-07, *Enhancing the Corrugated Packaging Curriculum at Cal Poly State University*. \$42,000
 10. Center for Teaching and Learning, Cal Poly grant for academic year 2006-07, *Enhancing Lab Based Activities for IT 457 (RFID in Supply Chain Management)*. \$5,640
 11. Instructionally Related Activities (IRA), Cal Poly grant for academic year 2007-08, *Pack Expo - Las Vegas/Chicago*. Amount \$7,000
 12. OCOB Summer Research Grant for academic year 2006-07, *Performance Comparison of Biodegradable Foams with Petroleum Based Plastic Cushions*. \$5,000
 13. Department of Conservation, Division of Recycling Grant for 2008-2010, *Development of Commercially-Viable Recycled Polyethylene Terephthalate*, \$500,000
 14. OCOB Hybrid Course Development Grant for 2008-2009, *Developing and Teaching a Hybrid Packaging Course (currently IT 570B) for MS in IT Program*, \$5,000
 15. OCOB Summer Research Grant for academic year 2007-08, *Evaluation of Corrugated Board Specifications from India, China, Thailand and the US*. \$5,000
 16. Glass Packaging Institute (GPI) & Fédération Européenne du Verre d'Emballage (Feve) Grant for 2008, *Life Cycle Analysis of Various Glass Packaging Designs*, \$228,980
 17. Instructionally Related Activities (IRA), Cal Poly grant for academic year 2008-09, *Pack Expo - Las Vegas/Chicago*. \$8,000
 18. Department of Conservation, Division of Recycling Grant for 2008-2010, *Reverse Vending Machines: An Action Implementation*, \$365,141
 19. Office of Naval Research/ California Central Coast Research Partnership grant for 2008-2010, *Assessment of Single-use Cold Chain Packaging and Logistics for Temperature Sensitive Products*, \$28,166
 20. Office of Naval Research/ California Central Coast Research Partnership grant for 2008-2010, *Sustainable Reuse of Corrugated Board for Civil Engineering Applications*, \$40,209
 21. Cooperative Research Consortium in Packaging Science and Technology (Cal Poly) grant for 2008-09, *Life Cycle Inventory (LCI) as a Tool for Packaging Sustainability*, \$46,296
 22. Cooperative Research Consortium in Packaging Science and Technology (Cal Poly) grant for 2008-09, *RFID Tag Embedded Distribution Packaging Solutions*, \$42,993
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