

American Society of Agricultural
& Biological Engineers

Food Processing Automation Conference 2008

June 28-29, 2008
Providence, Rhode Island, USA

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571
www.proceedings.com

ISBN: 978-1-60560-790-0

Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2008) by the American Society of Agricultural and Biological Engineers
All rights reserved.

For permission requests, please contact the American Society of Agricultural and Biological Engineers at the address below.

American Society of Agricultural and Biological Engineers
2950 Niles Road
St. Joseph, MI 49085

Phone: (269) 429-0300
Fax: (269) 429-3852

hg@asabe.org

TABLE OF CONTENTS

Portable Multispectral Imaging Instrument for Food Industry	1
<i>B. Park, M. Kise, K.C. Lawrence, W.R. Windham, S.C. Yoon</i>	
Machine Vision System for Automatic Online Inspection of Freshly Slaughtered Chickens.....	9
<i>C-C. Yang, K. Chao, M.S. Kim, D.E. Chan</i>	
Use of Spectroscopic Data for Automation in Food Processing Industry	22
<i>P.K. Ghosh, D.S. Jayas</i>	
Application of RFID Technologies in the Temperature Mapping of the Pineapple Supply Chain	30
<i>C. Amador, J.P. Emond, M.C. Nunes</i>	
RFID Behavior Study in Enclosed Trailer/Container for Real Time Temperature Tracking.....	37
<i>M. Laniel, J.P. Emond, A.E. Altunbas</i>	
Comparison of Chemometrics Methods for Assessing Internal Quality of Pears On-Line using Visible/Near Infrared Transmission Technique	49
<i>T. Sun, Y. Ying, K. Liu, H. Xu</i>	
Discrimination between Transgenic and Non-transgenic Tomatoes with Different Maturities Using Chemometrics and Visible/near-infrared Spectra.....	61
<i>L. Xie, Y. Ying, T. Ying</i>	
On-line Internal Quality Evaluation System for the Processing Potatoes.....	68
<i>S. Kang, K. Lee, J. Son</i>	
Automated Inspection System for On-line Detection of Cracked Eggs.....	74
<i>W-K. Choi, K-J. Lee, S. Kang, J-R. Son, H-Y. Lee, H-J. Kim</i>	
RFID-integrated Multi-Functional Remote Sensing System for Seedling Production Management	81
<i>I-C. Yang, S. Chen, Y-I. Huang, K-W. Hsieh, C-T. Chen, H-C. Lu, C-L. Chang, H-M. Lin, Y-L. Chen, C-C. Chen, Y.M. Lo</i>	
Velocity and Trajectory Profiles of Soybean Grains in Cross Flow System	90
<i>B.A. Adewumi, B.V. Rao, N.L. Kumar, L Ventakrishnan, K. Karthikeyan</i>	
A Study of Drying Rate of Some Fruits and Vegetables with Passive Solar Dryers.....	98
<i>A.F. Alonge</i>	
Decontamination of Airborne Bacteria in Meat Processing Plants	112
<i>J.R. Patel</i>	
SERS Technique for Rapid Screening and Species Identification of E. Coli, Listeria, and Salmonella.....	126
<i>K. Chao, Y. Liu, M.S. Kim</i>	
Detection of Bacterial Biofilm on Stainless Steel by Hyperspectral Fluorescence Imaging.....	142
<i>W. Jun, K. Lee, P. Millner, M. Sharma, K. Chao, M.S. Kim</i>	
Monitoring of Yogurt Fermentation Process Using Ultrasonic Technique.....	148
<i>T. Nishizu, K. Goto, N. Kondo, M. Kawabata</i>	
A Double Image Acquisition System with Visible and UV LEDS for Citrus Fruit	159
<i>N. Kondo, P.P. Ling, M. Kurita, P.D. Falzea, T. Nishizu, M. Kuramoto, Y. Ogawa, Y. Minami</i>	
Classification of Citrus Peel Diseases Using Color Texture Feature Analysis	170
<i>J. Qin, T.F. Burks, D.G. Kim, D.M. Bulanon</i>	

Development of a Hyperspectral Imaging System for Online Quality Inspection of Pickling Cucumbers.....	179
<i>R. Lu, D.P. Ariana</i>	
Development of a Milk Transport Security System	187
<i>F.A. Payne, C. Thompson, B. Luck, J.R. Moore, N. Tabayehnejad</i>	
Prediction of Pork Meat Total Viable Bacteria Count Using Hyperspectral Imaging System and Support Vector Machines	198
<i>Y. Peng, W. Wang</i>	
Lipid Hydrolysis and Genotype Analysis of Microbial Distribution on Rice Treated with Volatiles from Fractionated Propolis	209
<i>A. Griffiths, U. Toshitaka, T. Fumihiko, H. Daisuke</i>	
2D Modeling of Grain Transport and Separation in the Horizontal Air Stream.....	217
<i>B.A. Adewumi</i>	
Food Plant Operation and Management (FPOM): A Proposed New Program Option.....	227
<i>N.P. Mahalik, G. Choudhury, M. Yen</i>	

Author Index