## 6. Dissertations and Theses

### PH.D. GRADUATES (39)

<table>
<thead>
<tr>
<th>No.</th>
<th>Title of Dissertation/Thesis</th>
<th>Author(s)</th>
<th>Institution, Date</th>
<th>Company/Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.</td>
<td>Advanced Matrix Methods for Hyperspectral Image Analysis</td>
<td>Mark L.G. Althouse</td>
<td>Electrical Engineering, August 1994</td>
<td>Senior Technical Advisor, Department of Defense, MD</td>
</tr>
<tr>
<td>3.</td>
<td>Kriging Filtering and Subspace Project Approaches in Hyperspectral and Multispectral Image Classification</td>
<td>Brumblay</td>
<td>Electrical Engineering, May 1998</td>
<td>Senior Electrical Engineer, Department of Defense, MD</td>
</tr>
<tr>
<td>4.</td>
<td>Image Restoration of Low Resolution Text and Document Images</td>
<td>Paul Thouin</td>
<td>Electrical Engineering, May 2000</td>
<td>Senior Electrical Engineer, Department of Defense, MD</td>
</tr>
<tr>
<td>5.</td>
<td>Hyperspectral Image Analysis with Convex Cones and Projection Pursuit</td>
<td>Agustine Iffraguerri</td>
<td>Electrical Engineering, May 2000</td>
<td>Electrical Engineer, SAIC</td>
</tr>
<tr>
<td>6.</td>
<td>Topics in Hyperspectral Image Analysis</td>
<td>Qian Du</td>
<td>Electrical Engineering, May 2000</td>
<td>Associate Professor, Department of Electrical and Computer Engineering, University of Mississippi, MS</td>
</tr>
<tr>
<td>7.</td>
<td>Unsupervised and Generalized Orthogonal Subspace Projection and Constrained Energy Minimization for Target Detection and Classification in Remotely Sensed Imagery</td>
<td>Hsuan Ren</td>
<td>Electrical Engineering, May 2000</td>
<td>Associate Professor of Computer Science and Information Engineering, National Cheng Kung University, Tainan, Taiwan</td>
</tr>
<tr>
<td>8.</td>
<td>Computer-Aided System for Diagnosis of Clustered Microcalcifications in Mammograms</td>
<td>Chien-Shun Lo</td>
<td>Electrical Engineering, June 2000</td>
<td>Engineer, SAIC, Department of Multimedia Design, National Formosa University, Taiwan</td>
</tr>
<tr>
<td>10.</td>
<td>Automatic Target Detection and Classification in Hyperspectral Imagery</td>
<td>Shao Shan Chiang</td>
<td>Electrical Engineering, May 2001</td>
<td>Associate Professor, Department of Electrical Engineering, Lunghua University of Science and Technology, Taiwan</td>
</tr>
<tr>
<td>11.</td>
<td>Applications of Multispectral Imaging Processing Techniques to Brain Magnetic Resonance Imaging Classification</td>
<td>Chiu-Mu Wang</td>
<td>Electrical Engineering, National Cheng Kung University, Tainan, Taiwan, June 2002</td>
<td>Associate Professor, Department of Computer Science and Information Engineering, National Cheng Kung University, Tainan, Taiwan</td>
</tr>
<tr>
<td>12.</td>
<td>Text Detection and Restoration for Color Video Images</td>
<td>Yingzi Du</td>
<td>Electrical Engineering, May 2003</td>
<td>Assistant Professor, Department of Electrical and Computer Engineering, Indiana University-Purdue University Indianapolis</td>
</tr>
<tr>
<td>13.</td>
<td>Application of Linear and Nonlinear Mixture Models to Hyperspectral Imagery Analysis Using Radial Basis Function Networks</td>
<td>Kerri Guilloye</td>
<td>Electrical Engineering, May 2003</td>
<td>Associate Professor of Computer Science and Information Engineering, National Chung Kung University, Tainan, Taiwan, June 2002</td>
</tr>
<tr>
<td>15.</td>
<td>Design and Development of Computer-Aided Mammography Screening System for Mass Detection</td>
<td>Sheng-Chi Yang</td>
<td>Electrical Engineering, National Cheng Kung University, Tainan, Taiwan, June 2006</td>
<td>Senior Electrical Engineer, Department of Defense, MD</td>
</tr>
<tr>
<td>17.</td>
<td>Independent Component Analysis to Hyperspectral Data Exploitation</td>
<td>Jing Wang</td>
<td>Electrical Engineering, May 2006</td>
<td>Engineer, Engineer, Engineer, Engineer, Engineer</td>
</tr>
<tr>
<td>18.</td>
<td>Hyperspectral Signature Coding</td>
<td>Su Wang</td>
<td>Electrical Engineering, May 2006</td>
<td>Engineer, Engineer, Engineer, Engineer, Engineer</td>
</tr>
<tr>
<td>20.</td>
<td>Computer Aided Detection (CAD) for Meniscal and Articular Cartilages on Magnetic Resonance</td>
<td>Bharath Ramakrishna</td>
<td>Electrical Engineering, December 2007</td>
<td>Software Engineer, Software Engineer, UCLAN, CA</td>
</tr>
<tr>
<td>21.</td>
<td>Multispectral Brain Magnetic Resonance Imaging Analysis Using Hyperspectral Imaging Processing Techniques</td>
<td>Haing Min Chen</td>
<td>Electrical Engineering, National Cheng Hsing University, Assistant Professor of Biomedical Engineering, Hungkung University</td>
<td>Senior Electrical Engineer, Department of Electrical Engineering, National Cheng Hsing University, Assistant Professor of Biomedical Engineering, Hungkung University (Co-advisor with Professor Y.C. Ouyang)</td>
</tr>
<tr>
<td>22.</td>
<td>Hyperspectral Signature Coding</td>
<td>Sumit Chakravarty</td>
<td>Electrical Engineering, May 2006</td>
<td>Engineer, Engineer, Engineer, Engineer, Engineer</td>
</tr>
<tr>
<td>23.</td>
<td>Hyperspectral Target Recognition</td>
<td>Weimin Liu</td>
<td>Electrical Engineering, June 2008</td>
<td>currently assistant professor, Department of Electrical Engineering, National Cheng Hsing University, Tainan, Taiwan</td>
</tr>
<tr>
<td>24.</td>
<td>Design and Analysis of Endmember Extraction Algorithms for Hyperspectral Imagery</td>
<td>Chao-Cheng Wu</td>
<td>Electrical Engineering, May 2009</td>
<td>Professor of Electrical Engineering, National Cheng Hsing University, Tainan, Taiwan</td>
</tr>
<tr>
<td>25.</td>
<td>Hyperspectral Target Detection and Classification</td>
<td>Xiaoli Jiao</td>
<td>Electrical Engineering, Science, May 2010</td>
<td>(co-advisor with Professor Y. Du), currently research associate with SAIC, Currently Assistant Professor of Electrical Engineering, National Cheng Kung University, Tainan, Taiwan</td>
</tr>
<tr>
<td>27.</td>
<td>Estimation of Effective Spectral Dimensions for Hyperspectral Imagery</td>
<td>Wei Xiong</td>
<td>Electrical Engineering, April 14, 2011</td>
<td>currently software engineer, with Airvana, Boston, MA</td>
</tr>
</tbody>
</table>
32. Peter Hu, Computer Science, 3D ROC Abnormality in Predicting Trauma Patient Outcomes Using Vascular Signs Signals, Computer Science, May 2013, director of information technology, University of Maryland Hospital.
33. Shih-Yu Chen, Algorithm Design and Analysis for Hyperspectral Endmember Finding, Electrical Engineering, May 2014, assistant professor, Department of Computer Science, Information Technology, National Yulin University Science and Technology, Taiwan, ROC.
36. Hsiao-Chi Li, Growing Simplex Volume Analysis for Finding Endmembers in Hyperspectral Imagery, Electrical Engineering, May 2016, assistant professor, Department of Computer Science and Information Engineering, Fu Jen Catholic University, New Taipei City, Taiwan, ROC.
39. Li-Chien Lee, Hyperspectral Band Selection by Virtual Dimensionality, Electrical Engineering, May 2018, Facebook, Inc.

MASTER GRADUATES WITH THERSES (32)

18. Y. Liao, Mass Detection in Mammography Using Texture Analysis, Department of Information Engineering, National Ceng Kung University, June 2002 (co-advisor with Professor Shu-Mei Guo)
23. Weimin Liu, Supervised and Unsupervised Classification for Purdue Indian Pines Test Site, November 2005.
25. Shih-Wei Wang, Exploring the Effectiveness of ICA with Classifier in Quantitative Volume Measurement of Brain MRI, Department of Electrical Engineering, National Chung Hsing University, July 2007. (co-advisor with Professor Yen-Chieh Ouyang)
26. Yi-Hsu Lee, Improving Brain Tissue Classification ICA+SVM of MRI Acquired with multiple-channel phase-Array Coil, Department of Electrical Engineering, National Chung Hsing University, July 2008. (co-advisor with Professor Yen-Chieh Ouyang)
27. Ying-Cheng Lin, Development of User Interface for MRI Brain Imaging and Optimal Parameter Finding, Department of Electrical Engineering, National Chung Hsing University, July 2008. (co-advisor with Professor Yen-Chieh Ouyang)
28. Wen-Qian. Su, Kernel Principal Component Analysis with Applications In Multispectral Brain Magnetic Resonance Image Analysis, Department of Electrical Engineering, National Chung Hsing University, July 2008. (co-advisor with Professor Chin Hsing Lo)
32. Shih Yu, A Hyperspectral Imaging Approach to Unsupervised Magnetic Resonance Brain Tissue Classification, Department of Electrical Engineering, National Chung Hsing University, December 2009. (co-advisor with Professor Yen-Chieh Ouyang)

MASTER GRADUATE WITH SCHOLARLY PAPERS (13)

PH.D. DISSERTATIONS CURRENTLY IN PROCESS (7)

5. Charles Porta, Electrical Engineering.
6. Bai Xue, Mixed Pixel-Based Approaches to Hyperspectral Image Classification, Electrical Engineering.

MS THESES CURRENTLY IN PROCESS (0)

None.

UNDERGRADUATE WITH SCHOLARLY PAPERS UNDER SUPERVISION


VISITING RESEARCH SCHOLARS (12)

1. Hua-Lei Zhang, Associate Chairman, Department of Radioelectronic, Anhui University, Anhui, China, August 1992-February 1993.
2. Long-Yi Tsai, Professor and Chairman, Department of Mathematical Sciences, National Chengchi University, Taipei, Taiwan, September 1992-June 1993.
3. Gwi Tae Park, Professor and Chair, Department of Electronics Engineering, Korea University, Korea, July 23 1996-August 31, 1997.
4. Jih-Horng Lee, Professor, Department of Electrical Engineering, National Taiwan University, ROC, September 1, 1996-December 3, 1996.
5. Huei-Jeng Lin, Professor and Chair, Department of Engineering Science and Ocean Engineering, National Taiwan University, January 2004-June 2004.
6. Antonio J. Plaza, Associate Professor, Department of Computer Science, University of Extremadura, Spain, March 2003-November 2004.
7. Ying Fu, Associate Professor, University of Jinan, China, February 2011-August 2011.
8. Chunhong Liu, Associate Professor, China Agriculture University, China, 1/2012-12/2012.
9. Liaoqing Zhao, Associate Professor, Department of Computer Science, Hangzhou Dianzi University, China, 3/13-8/13.
10. Meiping Song, Associate Professor, Information and technology college, Dalian Maritime University, 9/13-8/14.
11. Lin Wang, Associate Professor, Xidian University, Xian, China, April 2015-April 2016.
14. Qiang Wang, Assistant Professor, Information and technology college, Dalian Maritime University, 9/18-8/19.