# PROMOTION RECOMMENDATION

University of Michigan-Flint College of Arts and Sciences Department of Computer Science, Engineering, and Physics

Michael E. Farmer, assistant professor of computer science, Department of Computer Science, Engineering, and Physics, College of Arts and Sciences, is recommended for promotion to associate professor of computer science, with tenure, Department of Computer Science, Engineering Science, and Physics, College of Arts and Sciences.

# Academic Degrees:

Ph.D.	2004	Michigan State University
M.S.	1994	University of Minnesota
M.S.	1984	University of Michigan
B.S.	1982	Columbia University

#### Professional Record:

2004 to Present	Assistant Professor of Computer Science, University of Michigan-Flint
2000 to 2004	Lead Developer, Innovation Center, Eaton Corporation, Southfield,
	Michigan
1995 to 1999	Lead Developer, Automotive Systems Laboratory, Takata, Farmington
	Hills, Michigan
1985 to 1995	Chief Engineer, Unisys Corporation, Eagan, Minnesota

#### Summary of Evaluation:

**Teaching** – Professor Farmer is an outstanding classroom teacher, as is evidenced by enthusiastic student response. He also has engaged in extensive course and program development, advises at the undergraduate and graduate level, involves students in undergraduate research projects, and played a key role in development of the Department's highly innovative "cyber classroom."

Research – Professor Farmer's research is in the area of computer vision. He also has produced pedagogical scholarship rooted in his teaching and research areas. Professor Farmer's scholarly record includes refereed publications, publications in refereed conference proceedings, and development of patents. He has active and continuing research interests that suggest a future of considerable additional scholarly promise and achievement.

#### Recent and Significant Publications:

#### Journals:

Farmer, M. and Turner S. "Multi-Media Classroom for Integrated In-Class and Distance Learning," *Academic Exchange Quarterly*, Spring 2008.

Farmer, M. "A Chaos Theoretic Analysis of Motion and Illumination in Video Sequences," *International Journal of Multimedia*, June 2007.

Farmer, M. and Jain, A. K. "Smart Automotive Airbags: Occupant Classification and Tracking," *IEEE Trans. on Vehicular Technology*, Jan 2006.

Farmer, M. and Jain, A. K. "A Wrapper-Based Approach to Image Segmentation and Classification," *IEEE Trans. on Image Processing*, Dec. 2005.

## U.S. Patents:

Farmer, Michael (2/2005). Decision enhancement system for a vehicle safety restraint application (US 6,856,694).

Farmer, Michael (2/2005). Occupant labeling for airbag-related applications (US 6,853,898).

Service – Professor Farmer's service as an assistant professor is well above average. He has served on the University Strategic Planning Committee, facilitated development of his department's cyber-classroom, and has served as director of the graduate programs in computer science and computer information systems. He is an excellent, highly-regarded colleague.

### External Reviewers:

# Reviewer (A):

"Professor Farmer has produced 4 journal papers and 18 conference proceedings, 19 patents, and 4 patents under review. ... This is excellent productivity by any standards."

# Reviewer (B):

"Overall the record is of high quality. I think that the number, range and quality of the publications is very impressive for somebody with a teaching load of 20-22 contact hours per semester."

# Reviewer (C):

"... I believe that Dr. Farmer has a good journal and conference publication record both in quantity and quality."

### Reviewer (D):

"The papers I have examined are all very good to excellent. They demonstrate a wide and deep knowledge of the fields of pattern recognition and computer vision. To me, they also demonstrate that Dr. Farmer has a cohesive, realistic, and very interesting research program."

### Reviewer (E):

"... Dr. Farmer's scholarly achievements are significant both in quantity and quality."

# Reviewer (F):

"The analytic rigor of his research work is of very high quality and I would say that the two papers are truly outstanding and well cited by researchers working in image processing and occupant classification."

# Reviewer (G):

"Dr. Farmer's scholarly results are perfectly reflected by his research paper publications and his large number of patents. Those papers were published in world-class research journals and presented at international conferences (one of the papers won the Best Session Presentation award at the 2006 IEEE World Congress on Evolutionary Computation) ..."

# Summary of Recommendation:

Based on Professor Farmer's excellence in teaching, research and service, and with the unanimous endorsement of the College of Arts and Sciences Executive Committee, we are pleased to recommend Michael E. Farmer for promotion to associate professor of computer science, with tenure, Department of Computer Science, Engineering, and Physics, College of Arts and Sciences.

Recommended by:

D. J. Trela, Dean

College of Arts and Sciences

Recommendation endorsed by:

Jack Kay, Provost and

Vice Chancellor for Academic Affairs

Ruth J. Person, Chancellor University of Michigan-Flint

May 2009