PERSONAL DATA

Name: Dr. Khalid A. Al-Mashouq

Business Address:

King Saud University

Electrical Engineering Department,

P.O. Box 800, Riyadh 11421, Saudi Arabia

Telephone +(966-1) 467 6734 E-mail: mashouq@ksu.edu.sa

Home Address: 28 Ibrahem Naser St., Alkhozama, Riyadh Saudi Arabia

EDUCATION

{Institute - King Saud University}

Year Degree Faculty Field

B.Sc. Engineering Electrical Engineering
M.Sc. Engineering Electric Power Engineering

{Institute - University of Southern California}

Year Degree Faculty Field

1412 Ph.D. Engineering Electric Power Engineering

CURRENT POSITION

Associate Professor, Electrical Engineering Department, King Saud University, Riyadh, Saudi Arabia

POSITIONS HELD

ACADEMIC - KING SAUD UNIVERSITY, RIYADH, SAUDI ARABIA

Electrical Engineering Department

1. Associate Professor (28/12/1416-present)

ACADEMIC - *{INSTITUTE - KSU*}

Department of Engineering

- 1. Assistant Professor (15/06/1412-27/12/1416)
- 2. Lecturer (17/09/1406-15/06/1412)
- 3. Teaching Assistant (22/09/1403-17/09/1406)

PROFESSIONAL MEMBERSHIPS

- IEEE Member

AWARDS

GOVERNMENT AWARDS: -----

TECHNOLOGY AWARDS

2. 1990 – Certificate of Outstanding academic achievement from University of Southern California (USC), Los Angeles California, USA

AWARD PUBLICATIONS

1. 1996 – Certificate of appreciation from IEEE Communication Society for contributing to the growth of communication industry and society.

PUBLICATIONS (Summary)

- Refereed Journal Papers:
- 1- <u>Khalid A. Al-Mashouq</u>, "**Prediction of Neutral Net Tolerance to Noise**," Neural Processing Letters, Vol. 5, No. 1, 1997.
- 2- <u>Khalid A. Al-Mashouq</u> and I.S. Reed, "Including Hints in Training Neural Nets," Neural Computation, Vol.3, No.3, pp. 418-427, Fall 1991.
- 3- <u>Khalid A. Al-Mashouq</u> and I.S. Reed, "The Use of Neural Nets to Decode Adaptively in a Variety of Channels," Digital Signal Processing, Vol.3, pp. 103-111, Nov. 1993
- 4- <u>Khalid A. Al-Mashouq</u> and I.S. Reed, "The Use of Neural Nets to Combine Equalization with **Decoding for Severe Intersymbol Interference Channels**," IEEE Transaction on Neural Networks, Vol.5, No.6, pp. 982-988, Nov. 1994.
- 5- Khalid A. Al-Mashouq, I. El-Azhari, Mostafa S. Afifi, A. S. Al-Ruwais and P.S. Excell "Multiple Nulls Formation and Low Interference of Future Arrays for Small Earth Stations," Proc. ARABSAT Symposium, Riyadh, Saudi Arabia, pp. 434-443, Sept. 1987.

- Invited	l / Magazıne	Papers:		
- Award	Winning Co	onference F	Papers:	

- Conference Papers:
- 1) <u>Khalid A. Al-Mashouq</u>, I.S. Reed and Ara Patapoution, "Complexity and Learning in Error Tolerant Neural Nets," Proceeding of the 7th International Conference on System Engineering, Las Vegas, Nevada, USA, June 1990.
- 2) <u>Khalid A. Al-Mashouq</u> and I.S. Reed, "**Training Neural Nets with the Minimum Hamming Distance as a Hint,**" Proceedings of the 1990 International Symposium on Information Theory and Its Applications (ISITA-1990), Waikiki, Hawaii, USA, November 1990.
- 3) <u>Khalid A. Al-Mashouq</u> and I.S. Reed, "The Use of Neural Nets to Combine Equalization with Decoding," IEEE International Conference on Speech Acoustic and Signal Processing (ICASSP-93), Minneapolis, Minnesota, USA, April 1993.
- 4) <u>Khalid A. Al-Mashouq</u> and A. Kh. A. Jabri, "Unstructured to Structured Error Correction Using Neural Nets," IEEE International Conference on Speech, Image and Neural Networks, Hongkong, April 1994.

5) Khalid A. Al-Mashouq,	"Generalization in Neur	al Nets Using Erro	or Correcting	Codes," IEEE
International Conference	e on Consumer Electronic	s (ICCE), Chicago,	Illinois, USA,	June 1994.

	`		O ,	,	
- Book Contributions:					
- Utility Industry Technical Reports:					
- University Technical Reports:					
- National and International (Externally-Funded) Proj	ect Of	ficial Fi	nal Report	s:	

- Final Industry Consulting Reports (Industry Funded Projects: -----
- University (Research Funded) Project Final Reports: ------

ACADEMIC SUPERVISION

GRADUATE/UNDERGRADUATE SUPERVISION

Ph.D. Programs: One student

M.Eng. & M.Sc. Programs: One student

Graduation Thesis & Summer Projects: students

GRADUATE/UNDERGRADUATE EXAMINATION & SUPERVISORY COMMITTEES

Ph.D. Supervisory Committees: students

Ph.D. & M.Eng. Defense Committees: students B.Sc. Thesis Examination Committees: students

RECENT R&D FUNDED CONTRACTS

(Last Five Years)

RECENT PUBLICATIONS (Last Five Years)

Journal Papers

- "Robust speech recognition using output-coded neural network"
 Accepted for publication in Journal of Mathematical Modeling and Scientific Computing, 1999.
- 2. "Clustered Recursive Branching Network" Accepted for publication in Neural Processing Letters, 1999.
- 3. <u>Khalid A. Al-Mashouq and Yousif Al-Hodhaif</u>, "Optimization of Recursive Branching Network" in IEEE IJCNN, Washington, DC, July 1999.
- 4. "Coding the Output of a Feed-Forward Neural Net," Accepted for publication in Journal of Connection Science, 1996.
- 5. **"Error Correction to the Output of Neural Nets,"** Accepted for publication in Journal of Mathematical Modeling and Scientific Computing, Principia Scientia International Publisher, 1996.

Conference Papers (Last Five Years)

- 6. **"Minimizing Memory Loss in Learning A New Environment"** (The 2000 Computation Neuroscience Meeting (CNS-2000) Brugge, Belgium, July 16-20, 2000).
- 7. **"Speech Quality Rating in Mobile Phones"** the 2000 International Conference on Mathematics and Engineering Techniques in Medicine and Biological Sciences (METMBS'2000): Las Vegas, Nevada, USA, June 26-29, 2000.

- 8. <u>Khalid A. Al-Mashouq, B. V. K. Vijaya Kumar and Mohamed Alkanha</u>l, "**Analysis of Signal-to-Noise Ratio of Polynomial Correlation Filters**" in SPIE Optical Pattern Recognition X, Orlando, Florida, April 1999.
- 9. "Output-Coded Neural Network for the Recognition in Noisy Environment" in 3d International Conference on Computational Intelligence and Neuroscience, Research Triangle Park, North Carolina, October 1998.
- 10. **"Recursive Branching Net"**, the IEEE Conference on System, Man and Cybernetics, Orlando, Florida, October 1997.