

# Mohannad Hamed Khalaf Al-Ali

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## EDUCATION

1. 2017: Ph.D., Electrical and Computer Engineering, University of Missouri, Columbia, MO, US
2. 2006: M.Sc., Electrical Engineering, Basrah University, IRAQ
3. 2003: B.Sc., Electrical Engineering, Basrah University, IRAQ

## ACADEMIC EXPERIENCE

1. May. 2017 - Present: Lecturer, Computer Engineering Department, Basrah University, Basrah Province, IRAQ.
2. Mar. 2019 – Present: Courtesy Appointment, Electrical Engineering and Computer Science Department, University of Missouri, Columbia, MO, US.
3. Jun. 2017 - Jun. 2018: Senior Research Specialist, Electrical Engineering and Computer Science Department, University of Missouri, Columbia, MO, US.
4. Apr. 2009 - May 2017: Assistant Lecturer, Computer Engineering Department, Basrah University, Basrah Province, IRAQ.

## PRACTICAL EXPERIENCE

1. Aug. 2005 - Dec. 2011: Senior Site Follow up Engineer, Project Management Department, Asiacell Tele. Co., Basrah Province, IRAQ.

## RESEARCH INTERESTS

1. Wireless Communications: Cognitive Radio Networks.
2. Statistical Signal Processing: Classical and Bayesian Detection.
3. Non-Linear Optimization.
4. Game theory for Communications Systems.

## HONORS/AWARDS/RECOGNITION

1. Awarded a PhD scholarship, Higher Committee of Education Development (HCED), IRAQ, Nov. 2010.
2. Ranked 1st in HUAWEI exam for GSM network fundamentals, Asiacell Tele. Co., Sulaymaniyah Province, IRAQ, Dec. 2008.
3. Ranked 1st (based on GPA) among more than 560 undergraduate Alumni, College of Engineering, Basrah University, Basrah Province, IRAQ, Sep. 2003.
4. My undergraduate senior project was Ranked 5th among more than 40 projects, College of Engineering, Basrah University, Basrah Province, IRAQ, May 2003.
5. Got recognition and awarded an appreciation letter for rehabilitating the Electrical Lab., Summer Training, College of Engineering, Basrah University, Basrah Province, IRAQ, Aug. 2002.

## MEMBERSHIP AND TRAINING

1. Practitioner Engineer, Iraqi Engineers Union, IRAQ, 2003-Present.
2. Membership, IEEE, USA, Jan. 2011-Present.
3. Training Course on Huawei base stations, Asiacell Tele. Co., Sulaymaniyah Province, IRAQ, May - Jun. 2009.
4. Training Course on GSM network, Asiacell Tele. Co., Sulaymaniyah Province, IRAQ, Nov. - Dec. 2008.
5. Training Course on GSM network, Asiacell Tele. Co., Sulaymaniyah Province, IRAQ, Sep. - Oct. 2005.

## JOURNAL/CONFERENCE PAPER REVIEWER

1. IEEE Transactions on Wireless Communications.
2. IEEE Transactions on Communications.
3. IEEE International Symposium on Circuits and Systems 2015, 2016, 2018.

## JOURNAL PUBLICATIONS

- 1 **M. Al-Ali** and K. C. Ho, "Objective Bayes factor for binary composite hypothesis test," Submitted to IEEE Transactions on Information Theory.
- 2 **M. Al-Ali** and K. C. Ho, "Precoding for MIMO channels in cognitive radio networks with CSI uncertainties and for MIMO compound capacity," IEEE Transactions on Signal Processing, vol. 65, no. 15, pp. 3976-3989, Aug. 2017.

- 3 **M. Al-Ali** and K. C. Ho, "Transmit precoding in underlay MIMO cognitive radio with unavailable or imperfect knowledge of primary interference channel," IEEE Transactions on Wireless Communications, vol. 15, no. 8, pp. 5143-5155, Aug. 2016.
- 4 A. K. Marzook, A. Ismail, B. M. Ali, A. Sali, **M. Al-Ali**, S. Khatun, "Reduced rank technique for joint channel estimation and joint data detection in TD-SCDMA systems," Wireless Personal Communications, vol. 69, no. 4, pp. 1629-1646, May 2012.

### CONFERENCE PULICATIONS

- 1 **M. Al-Ali** and K. C. Ho, "Bayesian multi-antenna sensing in cognitive radio networks using fractional Bayes factor," in Proceedings IEEE International Conference on Acoustics, Speech, Signal Processing, ICASSP-2017, NEW ORLEANS, LA, USA, Mar. 2017.
- 2 **M. Al-Ali** and K. C. Ho, "Robust transmit precoding for underlay MIMO cognitive radio with interference leakage rate limit," in Proceedings IEEE International Conference on Acoustics, Speech, Signal Processing, ICASSP-2016, Shanghai, China, Mar. 2016, pp. 3001-3005.
- 3 A. K. Marzook, A. Ismail, B. M. Ali, A. Sali, **M. Al-Ali**, S. Khatun, "Analysis of joint channel estimation and joint data detection in TD-SCDMA systems," 17th Asia-Pacific Conf. on Communications (APCC), Sabah, Malaysia, Oct. 2011, pp. 692-697.

### REFERENCES

Name of Reference	Relation	Contact information and Address
<b>Prof Dominic K. C. Ho</b>	Ph.D. advisor	HoD@missouri.edu, 331 NAKA Hall building, University of Columbia-Missouri, Columbia, MO 65211, US
<b>Prof Athanasios C. Micheas</b>	Ph.D. committee member	amicheas@stat.missouri.edu, 134G Middlebush Hall, University of Columbia-Missouri, Columbia, MO 65211, US
<b>Prof Naz Islam</b>	Ph.D. committee member	IslamN@missouri.edu, 319 NAKA Hall building, University of Columbia-Missouri, Columbia, MO 65211, US
<b>Dr Majid A. Alwan</b>	MSc co-advisor	altimimee@yahoo.com, Electrical Engineering Department, College of Engineering, Basrah University, Basrah Province, IRAQ

