# Amir M. Samani Majd, Ph.D.

# Danshpajoohan Higher Education Institute, Esfahan, Iran

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a.m.samani@gmail.com

<b>EDUCATION</b> <b>Ph.D., Biological&amp; Agricultural Engineering Department</b> Texas A&M University, TX, USA (TAMU)	2015
M.Sc., Plant& Environmental Science + Minor in GIS (GIS Certification) New Mexico State University, NM, USA (NMSU)	2010
M.Sc., Civil Engineering, Water Resources Iran University of Science and Technology, Iran (IUST)	2001
<b>B.Sc., Civil Engineering</b> Isfahan University of Technology, Iran (IUT)	1998
RESEARCH & TEACHIG INTERESTS Sustainable Development, Water Resources Management, Environmental Engineering and Environmental Management, Image Processing and Remote Sensing;	Project
RESEARCH EXPERIENCE2Daneshpajoohan Higher Education Institute2Vice-chancellor of Research & Technology2• Sustainable Development and Urban Construction2	2013-Present
<ul> <li>Zenderud Environmental Research Center, Iran, Isfahan Science Technology Town (ISTT) Jointed with Behinab Environmental Consultant &amp; Knowledge-based Engineering Co.</li> <li>Head of Research Center: Environmental Project Management, Environmental Impact Assessment,</li> <li>Principal Investigator: Development of local technology for measuring water quality parameters of urban Investigator: Assessed environmental impact of industrial solid wastes in Esfahan Industrial Estates (Osh Jey) regarding its environmental point of view</li> <li>Investigator: Investigated of groundwater quality in Esfahan province</li> <li>Co-Investigator: Diagnosed HTMs in Esfahan fresh water distribution network</li> </ul>	
<ul> <li>Texas A&amp;M University, Biological&amp; Agricultural Engineering Department</li> <li>Ph.D. Dissertation: Application of Gas-Permeable Membranes for Mitigating Ammonia Gas from Animal</li> <li>The main goal was to assess the efficacy of extracting NH<sub>3</sub> from liquid manure using a sulfuric acid-filled permeable membrane system and to investigate the use of recovered NH<sub>3</sub> as a valuable fertilizer.</li> </ul>	
<ul> <li>Graduate Research Assistant</li> <li>Using acidic electrolyzed water to reduce objectionable gas emissions from poultry production facilities i</li> <li>Investigating ammonia recovery from liquid manure using gas-permeable membranes</li> </ul>	in Texas
<ul> <li>New Mexico State University, Plant&amp; Environmental Science</li> <li>M.Sc. Thesis: Canopy cover estimation in pecan orchards using satellite data, aerial imagery, and floor phe</li> <li>The main goal was to find the relationship between canopy cover estimation and eveapotranspiration and calculating pecan water consumption.</li> </ul>	
<ul> <li>Graduate Research Assistant:</li> <li>Estimation of vegetation indices of pecan orchards located at Messilla Valley, NM, using remote sensing and a new developed imagery photography.</li> </ul>	techniques
<ul> <li>Iran University of Science &amp; Technology (IUST)</li> <li>M.Sc. Thesis: Simulation of groundwater and surface water interaction in Zayanderud Basin</li> <li>The main goal was to model the water interactions in the basin</li> </ul>	2001-2004
<ul> <li>Research Assistant:</li> <li>Fourth Agent Coordinator Stewardship: Organizing the consultant projects of Chabahar Free Zone (CFZ</li> <li>Investigator: Flood analyzing and urban drainage network design in Baneh, Dehgolan, Kamyaran, Korde</li> <li>Investigator: Sustainability assessment of water resources due to climate change &amp; Integrated water Res.</li> <li>Investigator: Drainage Handbook for road, highways, bridges and airports</li> </ul>	stan, Iran

## PUBLICATIONS

## **Book Chapters**

- Samani Majd A. M., Javadian Jazi H., Gholami H., Noroozi G., Beheshti, S.M., Kunzmann F., Mehralizade M. Akhundi A. Eizadi M. S., Ashayeri H., Erfanian M., Feizi A., Vazifedoost M., Gruehn F., Benikowfski G., Jaafari H., Mirtalaei S. K., 2018. Seventh Approach to Sustainable Development based on the Lectures at 6<sup>th</sup> International Conference, Under publishing by Daneshpajoohan Scientific Ins. Publication, Esfahan, Iran
- Abtahi, S. M., Javadian Jazi H., **Samani Majd A.M.**, Gholami H., Noroozi G., 2017. Proceeding of Seventh International Conference on Sustainable Development & Urban Construction, Daneshpajoohan Scientific Ins. Publication, Esfahan, Iran
- Samani Majd A. M., Javadian Jazi H., Ayati H., Golabchi M., Molaverdi, Sh., Mazaherian H., Vazifedoost M., Gruehn F., Benikowfski G. 2017. New Approaches to Sustainable Development from the Lectures at 6<sup>th</sup> International Conference, Under publishing by Daneshpajoohan Scientific Ins. Publication, Esfahan, Iran
- Abtahi, S. M., Javadian Jazi H., Sajad R., **Samani Majd A.M.**, 2017. Proceeding of Sixth International Conference on Sustainable Development & Urban Construction, Daneshpajoohan Scientific Ins. Publication, Esfahan, Iran
- Samani Majd A. M., Javadian Jazi H., Abtahi S. M., Golabchi M., Darvish M., Vazifedoost M., Mirtalaei M., Pourzamani H., Rahbari Fard R., Andersson T., Elizabeth I., 2016. An Approaches to Sustainable Development from the Lectures at 5<sup>th</sup> International Conference, Daneshpajoohan Scientific Ins. Publication, Esfahan, Iran
- Abtahi, S. M., Javadian Jazi H., Sajad R., **Samani Majd A.M.**, 2016. Proceeding of Fifth International Conference on Sustainable Development & Urban Construction, Daneshpajoohan Scientific Ins. Publication, Esfahan, Iran
- Samani Majd A. M., Javadian Jazi H., Abtahi S. M., Esmaeili P., Golabchi M., Darvish M., Zopel C., Vazifedoost M., Mirtalaei M., Jongwerth F., Zimerlin S., Menzinger M., Vafamehr M., Pourzamani H., Mehdizade F. 2015. Approaches to Sustainable Development from the Lectures at 4<sup>th</sup> International Conference, Daneshpajoohan Scientific Ins. Publication, Esfahan, Iran
- Javadian Jazi H., Zolfaghari S., **Samani Majd A.M.**, Sajad R. 2014. Proceeding of Fourth International Conference of Sustainable Development & Urban Construction, Daneshpajoohan Scientific Ins. Publication, Esfahan, Iran
- Samani Majd A. M., Amushahi H., Zamani M., BokaeiJazi M. 2011. Ketab Omran, Courses (new revision), Daneshpajoohan & Arkan Pub., Esfahan, Iran
- Samani Majd A. M., Amushahi H., Zamani M. 2012. Ketab Omran, Questions and Answers, Daneshpajoohan & Arkan Pub., Esfahan, Iran
- Bokaei Jazi M., **Samani Majd A. M.**, 2010. Ketab Omran, 15<sup>th</sup> edition, Daneshpajoohan & Arkan Pub., Esfahan, (1<sup>st</sup> edition: 1999)

## Journal Papers

- Samani Majd, Golabchi M., Sajad R. 2017. An introduction to sustainable indices in urban development based on project management standard: PMBOK (A case study: Esfahan). Journal of Urban Sustainable Development (1), Esfahan, Iran
- Mukhtar S., **Samani Majd A. M.**, Borhan M. S., Kunz A. 2017. Efficacy of ammonia capture from liquid dairy manure using a gas-permeable membrane, Journal of Desalination and Water Treatment, 60
- Kalbasi A., **Samani Majd A. M.**, Riskowski G., Mukhtar S., Zhao L. 2016. Removing ammonia from air with a constant pH, slightly acidic water spray wet scrubber using recycled scrubbing solution, Journal of Frontiers of Environmental Science and Engineering 10(6), 3
- Ebrahimi A., Moazeni M., Esfandiari Z., Estaki F., **Samani Majd A. M.**, Mirlohi M., Abdi Moghadam Z., Falahati M., Pourzamani H. 2016. Qualitative evaluation of bottled water stored in polyethylene terephtalate based on organic chemical compounds, The Anuário do Instituto de Geociências of Federal University of Rio de Janeiro [ISSN 0101-9759], 39(2), 29-35
- Samani Majd A. M., Kalbasi A., Riskowski G., Mukhtar S., Zhao L., Fang W. 2015. Electrolyzed water spray scrubber for removing ammonia from air, Transaction of the ASABE, 58(4)
- Pourzamani H., Samani Majd A. M., Fadaei, S. 2015. Benzene removal by hybrid of carbon nano tubes and nano magnetic particle from aqueous solution, Desalination and Water Treatment
- Pourzamani H., **Samani Majd A. M.**, Movahedian Attar H., Bina B. 2015. Natural organic matter degradation using combined processes of ultrasonic and hydrogen peroxide treatment, The Anuário do Instituto de Geociências of Federal University of Rio de Janeiro [ISSN 0101-9759], 38(1)
- Samani Majd A. M., Mukhtar S., 2013. Ammonia diffusion into a tubular gas-permeable membrane by circulating diluted acid, Transaction of the ASABE 56(5)
- Samani Majd A. M., Mukhtar S., 2013. Ammonia recovery enhancement using a tubular gas-permeable membrane system in a laboratory and field-scale studies, Transaction of the ASABE 56(5)
- Amin M. M., Bina B., Samani Majd A. M. Pourzamani H. R., 2013. Benzene removal by nano magnetic particle under continuous condition from aqueous solution. Front. Environ. Sci. Eng. 9, 29(56)
- Samani Majd A.M., Blieweiss M., DoBois D. and Shukla M.K. 2013. Estimation of the fractional canopy cover of pecan orchards using Landsat 5 satellite data, aerial imagery, and orchard floor photographs. Journal of Remote Sensing of Environment, 34, 16: 5937-5953

#### Submitted Journal Papers

- Samani Majd A. M., Riskowski G., Mukhtar S., Feagley S. Evaluation of the ammonium sulfate by-product of gaspermeable membrane systems a plant nutrient, submit to the journal of Communications in Soil Science & Plant Analysis
- Samani Majd A.M., Beyrouti Z., Samani Majd S., Afyuni M. Impact assessment of zeolite, manure and rubber powder on plant growth. prepared to be submitted to the Journal of Design & Build Environment

#### **Conference Proceedings & Articles**

- Naghshine M., Ostadmoradi N., Alizadeghanad M. R., **Samani Majd A. M.**, Pourzamani H. R. 2014. Multi oxidant solution effect on urine of recreation pool water. 4<sup>th</sup> International Conference of Sustainable Development & Urban Construction, 17-19 Dec., 2014, Esfahan, Iran
- Naghshine M., Alidoost E., **Samani Majd A. M.**, Ostadmoradi N., Pourzamani H. R. 2014. Multi oxidant solution production effects in Golgoon drinking water. 4<sup>th</sup> International Conference of Sustainable Development & Urban Construction, 17-19 Dec., 2014, Esfahan, Iran
- Naghshine M., Ostadmoradi N., Samani Majd S., **Samani Majd A. M.**, Pourzamani H. R. 2014. An investigation on the products of table salt electrolyzed for water and wastewater disinfection (Case study: BACO system). 4<sup>th</sup> International Conference of Sustainable Development & Urban Construction, 17-19 Dec., 2014, Esfahan, Iran
- Naghshine M., Ostadmoradi N., Samani Majd S., **Samani Majd A. M.**, Pourzamani H. R. 2014. Pocket disinfector system using electrolyzing method (BACK pen). 4<sup>th</sup> International Conference of Sustainable Development & Urban Construction, 17-19 Dec., 2014, Esfahan, Iran
- Samani Majd A. M., Riskowski G., Kalbasi A., Mukhtar S. 2014. Ammonia scrubbing using controlled pH diluted acid spray scrubber. 2014 ASABE and CSBE|SCGAB Annual International Meeting, Montreal, Quebec Canada
- Samani Majd A. M., Mukhtar S. 2013. Flow rates influence on manure ammonia mitigation using an acid-filled gaspermeable membrane. 2013 ASABE Annual International Meeting, Kansas City, MI
- Samani Majd A. M., Kalbasi A., Mukhtar S., Riskowski G. 2013. Ammonia scrubbing using electrolyzed water spray scrubber. 2013 ASABE Annual International Meeting, Kansas City, MI
- Samani Majd A. M., Mukhtar S. 2013. Ammonia mitigation and capture as a liquid fertilizer from manure using gas-permeable membrane. 2013 From Waste to Worth: "Spreading" Science and Solutions, Denver, CO
- Samani Majd A. M., Mukhtar S., Kunz A. 2012. Application of diluted sulfuric acid for manure Ammonia extraction using a gas-permeable membrane. 2012 ASABE Annual International Meeting, Dallas, TX
- Mukhtar S., **Samani Majd A. M.**, Borhan M. S., Beseda II, J. F. 2011. An investigation of ammonia extraction from liquid manure using a gas-permeable membrane. 2011 ASABE Annual International Meeting, Louisville, KY
- Bafghi A.R, **Samani Majd A.M.**, Taebi A. 2007. Effective parameters on natural degradation of cyanide in soil, VIIth International Scientific Conference of SGEM, Bulgaria, Jun 11- 14, 2007
- Pourzamani H., ghazavi M., **Samani A.M.** 2006. A survey of water quality for corrosion in Oshtorjan Industry Area (Esfahan), Iran Yafte Journal of Lorestan University of Medical Sciences and Health Service [In Persian]
- Samani Majd A.M., Safavi H.R., Taebi A. 2003. Study on groundwater quality simulation in Esfahan province, 2003, Proceeding of 6<sup>th</sup> International Conference on Civil Engineering, (ICCE 2003), IUT
- Afshar A., Samani Majd A.M., Safavi H.R., 2001. Simulation of groundwater and surface water conjunctive use in Zayande Rood River Basin, Proceeding of Second Hydraulic Conference of IRAN
- Afshar A., **Samani Majd A.M.**, Safavi H.R. 2001. Conjunctive aquifer-stream simulation using numerical package, Proceeding of 2<sup>nd</sup> International Conference on Water Resources Management, 2001, Halikidiki, Greece, (Wessex. UK, in English)

### ABSTRACTS/PRESENTATIOS

- Samani Majd A.M., Blieweiss M., DoBois D. and Shukla M.K. 2010. Relation between Fractional Canopy Cover and Crop Coefficient in Pecan Orchards based on Orchard Floor Photophotographic Imagery, NM Water Research Symposium
- Scott R L., Blieweiss M., DoBois D. and Samani Majd A.M. 2010. *Measuring Competitive Pecan Production through Satellite Remote Sensing*, NM ASPRS annual meeting
- Samani Majd A.M., Shukla M.K., Bawazir A. S. and Samani Z. A. 2009. *Physical Properties of Clinoptilolite Zeolite and Mixtures with Sand*, NM Water Research Symposium
- SamaniMajd A.M. 1996. *Study on Water & Wastewater Treatment Equipment in Iran*, Proceeding in Fourth Civil Student Conference, Tehran

### PATENT CONTRIBUTIONS

- Nitrate removal system from water and wastewater. 2014. The Judiciary, State registry of Deeds & Estate Properties, Iran
- Advanced chlorine-ozone disinfection system (BAKO). 2012. The Judiciary, State registry of Deeds & Estate Properties, Iran

- Reagent powder that indicates free chlorine special for measuring water chlorine in colorimetric method. 2011. The Judiciary, State registry of Deeds & Estate Properties, Iran
- Reagent powder that indicates total chlorine special for measuring water chlorine in colorimetric method.2011. The Judiciary, State registry of Deeds & Estate Properties, Iran
- Pocket digital device for measuring water chlorine. 2007. The Judiciary, State registry of Deeds & Estate Properties, Iran

TEACHING EXPERIENCE	
Instructor, Daneshpajoohan Higher Education Ins. (DHEI)	2013- Present
Graduate course: Project Management, Research Method	
• Under graduate course: Technical English for Civil Engineering Students, Fluid Mechanics, Hydrology	
Panel Coordinator	2016
Dortmund Panel: Green Urban Design	
Dortmund Panel was a session at 6 <sup>th</sup> International Conference in collaboration with TU Dortmund (Germany) University Faculty members: Prof. Vaizfedoost, Prof. Gruhn, Prof. Benikowfski	
<b>Teaching assistant and grader, Undergraduate course, TAMU</b> • Engineering Thermodynamics	Fall 2011, 2012
Teaching assistant, Undergraduate course, NMSU	2009
• Surface Water Hydrology	
• Groundwater Hydrology	
Instructor, Undergraduate course, Daneshpajoohan Higher Education Ins (DHEI)	2006-2008
Fluids Mechanics	
Lab Instructor, Undergraduate course, IUT • Water & Wastewater Networks Design	2002
Teaching assistant, Graduate course, IUST	2000
Advanced Hydrology	
Grader, Graduate course, IUST	1998-2001
• Hydrology	
Open channel Hydraulic	
Fluids Mechanic	
PROFESSIONAL EXPERIENCES	
Urban Sustainable Development Scientific Journal	2014-Present
• Editorial Board	
Daneshpajoohan Higher Education Ins., Iran, Esfahan, (DHEI) • Vice-chancellor of Research	2014-Present
Daneshpajoohan Higher Education Ins., Iran, Esfahan, (DHEI)	2006-2008
• Executive Vice President	2000 2000
• Faculty Member	
Zenderud Environmental Research Center	2013- Present
• Founder and Dean: To diagnose current environmental issues and to innovate	2006-2008
some technological solutions.	1007 2007
<ul> <li>Behinab Environmental Consultant Engineering Inc. (ISTT) and Others</li> <li>Founder: To diagnose current environmental issues and to innovate some technological solutions.</li> </ul>	1997-2006
• <i>President:</i> Administration and supervision of different technical departments and executive offices	
• Project Manager: Directing technical potentials for accomplishing the projected listed below.	
- Environmental Impact Assessment of Alavijeh Industrial zoon.	
- Environmental Impact Assessment of MorcheKhort Industrial zoon.	
• <i>Designer:</i> – Irrigation Network, Esfahan Vilasabz Garden	
– Imigation Network, Estanan Vilasabz Garden – Small Hydropower Diversion Type, Refen Hydropower About 20 KW Capacity	
– Urban Drainage Networks for Bandar Abbass Port, Aghalla city and Torkaman Port and Goldasht	cities,

– Water Transition and Water Distribution Networks, Niasar, Falavarjan towns, Beheshti town, 1997-200

- Wastewater Collection Networks, Shahrood, Abhar, 1995-1997	
Civil Engineering Executer Office, NDSA • Technical Deputy	2005-2006
• Secretary of water, wastewater and utility committee:	
<b>REVIEW EXPERIENCE</b> DHEI 6 <sup>th</sup> International Conference on Sustainable Development & Urban Construction • <i>Review of two submitted manuscripts</i>	2016
<ul> <li>Environmental Science: Water Research &amp; Technology</li> <li>A manuscript titled "Hydrophobic Tubular Membranes for Ammonia Recovery in Bio- Electrochemical Systems</li> </ul>	2015
•	
DHEI 4 <sup>th</sup> International Conference on Sustainable Development & Urban Construction • <i>Review of seven submitted manuscript</i>	2014
Transaction of the ASABE • A manuscript titled "Production of Ammonium Sulfate Fertilizer Using Acid Spray Wet Scrubbers"	2014
Iran Ministry of Power (Water and Electricity)	2001-
• Standard draft: "Environmental Evaluation of Water and Wastewater Planning Instruction, In Feasil Phase", Standard No. A-236, 2002	pility 2002
• <i>Standard</i> draft: "The Guidelines of Efficiency Analysis of Precipitating in Inlets", Standard No. A-2 2002	
• Standard draft: "The Guidance for Erosion Depth Determination and Prevention Methods with This Bridge Legs Area", No. A-239, 2001	
<ul> <li>Standard draft: "Water Environmental Evaluation Instruction and Wastewater Planning In Reconnoi Phase", Standard No. 235, 2001</li> <li>Standard Laft, "The Course Parlies for Course to Index Structure Device", Standard No. 112, 2002</li> </ul>	
<ul> <li>Standard draft: "The Common Rules for Concrete hydro-Structure Design", Standard No. 112, 2002</li> <li>Standard draft: "The Guidance for Operating of Dams Reservoirs", No. A-210, 2001</li> </ul>	
<ul> <li>Standard draft: "Maintenance and Operating Instruction of Drainage Systems", Standard No. A-247.</li> <li>Standard draft: "The Role of Geophysics In Water Engineering, Well in Hydrogeology and its Guia in Geo-technique and Rock Mechanics", Standard No.A-127, 2001</li> </ul>	
AWARDS, HONORS & CERTIFICATIONS	
BAEN Graduates Student Travel AwardSurFor attending in 2013 ASABE international meeting, presenting two papersSur	nmer 2013, 2014
<b>BAEN Scholarship</b> Biological & Agricultural Engineering Department, TAMU	2011-2012, 2013-2014
Who's Who Among Student in American and College As a top academic graduate student leader at Texas A&M University, Nominated by	2012-2013
Department of Student Activities Graduate Teaching Academic Fellow Center for Teaching Excellence & Office of Graduate Studies, TAMU	2012
Student Research Week Judge Student Service Fee, Graduate Student Council, TAMU	2011, 2012
<b>9th Annual TAMUS Pathways Student Research Symposium Judge</b> Graduate Studies and Ombudsperson Research and Graduate Studies, TAMU	2011
<b>Certification of Innovation</b> The Judiciary, State registry of Deeds & Estate Properties, Iran	2007
Calligraphy Certification Esfahan Calligraphy Association	1997

# LEADERSHIP ACTIVITIES

<b>Secretary of Executive Committee</b> 6 <sup>th</sup> , 5 <sup>th</sup> and 4 <sup>th</sup> International Conference on Sustainab Construction www.sduc.ir	le Development & Urban	December 2014, Present
President and Co-Founder of Graduate Stude Biological & Agricultural Engineering Department,	ent Association (BAEN GSA) TAMU	Spring 2012- 2014
Grad. Rep at BAEN Graduate Program and Recu Biological & Agricultural Engineering Department,		Fall 2012- 2013
GSC Award Committee Chair		Summer 2012- 2013
Graduate Student Council (GSC), TAMU Vice President of Finance Graduate Student Council (GSC), TAMU		2011-2012
TAMU Tuition and Fee Advisory Committee	e (TFAC) member	[Spring 2012]
<b>Volunteering services</b> 2012 ASABE Annual International Meeting, Dallas,	Texas	2012
<b>BAEN Delegate</b> Graduate Student Council (GSC), TAMU		2011-2013
DaneshpajoohanBarin Scientific Institute (DBSI) Co-founder, Board Member and R&D Unit Manager www.daneshpajoohan.com		1998-2008
<b>Daneshpajoohan Higher Education Institute (DH</b> Co-founder, Vise-President and Faculty member <u>www.daneshpajoohan.ac.ir</u>	EI)	2006-2008
Behinab Environmental Consultant Inc. Co-founder, Manager and Board Member <u>http://www.behinab.ir/en/#pdata</u>		2001-2008
Zenderud Environmental research Group Founder, Board Member		2006-2008
SHORT COURSES		
• Improvement of Existing Wastewater Treatment Systems for Water Recycling	Daneshpajoohan Higher Educat International Co. Germany, 2014	
• Urban Planning Methods & Approached, Project Study: German Cities	•	
Project Management	Isfahan Scientific and Technolog	
• Finance Management Isfahan Scientific and Technology Town (ISTT), 2004		
<ul> <li>Marketing of ICT Company</li> <li>Isfahan Scientific and Technology Town (ISTT), 2004</li> <li>Strategic Management</li> <li>Isfahan Scientific and Technology Town (ISTT), 2004</li> </ul>		
Solid waste Management	6 <sup>th</sup> International Conference of O	Civil Engineering, 2003, IUT

# **COMPUTER SKILLS**

- Remote Sensing: ENVI, ERDAS
- Hydraulic AND Hydrology Packages: DHI Software, HECRAS, HECHMS, HYDRUS
- Design Package: LOOP, EPANET, SEWAGE
- Groundwater Software: Visual MODFLOW, Groundwater VISTA, GWW
- Programming Language: Matlab, FORTRAN 77, Basic
- Management: MS Project, MINITAB, Variowin
- GIS: Arc GIS
- Desktop Application: MS Office, Auto Cad

## **INVOLVEMENT**

• Member of American Society of Biological & Agricultural Engineers (ASABE)	2010- present
• Member of ASABE Committee SE-305 - Environmental Air Quality,	2011- present
Member of ASABE SE-412 Committee- Waste Management	2011- present
Scientific Daneshpazhoohan Association	1998- Present
	Samani Majd's CV, 6