



TO MAGNIFICO RETTORE OF UNIVERSITA' DEGLI STUDI DI MILANO

ID CODE __4867__

I the undersigned asks to participate in the public selection, for qualifications and examinations, for the awarding of a type B fellowship at **Dipartimento di Scienze Agrarie e Ambientali - Produzione, Territorio, Agroenergia** __

Scientist- in - charge: **Prof. Claudio Gandolfi** _

[Amro Negm]

CURRICULUM VITAE

Il sottoscritto NEGM AMRO SAYED RAMADAN MOHAMED nato a Kalyobiya, Egitto il 20/07/1986, e residente in 4103-139 Silverthorn Road, NW Calgary, Alberta Postal code T3B5H5. Codice Fiscale: NGMMSY86L20Z336S, cell. +14038740030, al fine di rendere dichiarazione ai sensi del D.P.R. N. 445 del 28.12.2000, Artt. 46 e 47, sulle circostanze sotto riportate, per uso concorsuale, consapevole delle sanzioni penali previste nel caso di mendaci dichiarazioni dagli articoli 494 e seguenti del Codice Penale, DICHIARA:

PERSONAL INFORMATION

| | |
|---------------|----------------------------|
| Surname | Negm |
| Name | Amro Sayed Ramadan Mohamed |
| Date of birth | [20, 07, 1986] |

PRESENT OCCUPATION

| | |
|----------------------|---|
| Appointment | Structure |
| Postdoctoral Scholar | Department of Geoscience, University of Calgary, Canada |

EDUCATION AND TRAINING

| Degree | Course of studies | University | year of achievement of the degree |
|---------------|---|---|-----------------------------------|
| Degree | Bachelor degree of Agricultural Science (Agricultural Engineering) | Zagazig University | 2007 |
| Master degree | Master of Science Diploma in "Land and Water Resources Management: Irrigated Agriculture" | International Center for Advanced Mediterranean Agronomic Studies | 2010 |

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| | | (CIHEAM), The Mediterranean Agronomic Institute of Bari (MAIB) in Italy | |
| PhD | PhD in "Natural Risks Assessment and Management | University of Brescia | 2014 |

REGISTRATION IN PROFESSIONAL ASSOCIATIONS

| Date of registration | Association | City |
|----------------------|--|--------------------|
| Since 2013 till now | European Geophysical Union | Vienna, Austria |
| Since 2019 till now | American Geophysical Union | San Francisco, USA |
| Since 2018 till now | Changing Cold Regions Network (CCRN) and Global Water Future (GWF) | Saskatoon, Canada |

FOREIGN LANGUAGES

| Languages | level of knowledge |
|-----------|--------------------|
| English | Fluent (Excellent) |
| Italian | Intermediate |
| Arabic | Mother tongue |

AWARDS, ACKNOWLEDGEMENTS, SCHOLARSHIPS

| Year | Description of award |
|-----------|---|
| 2017-2020 | Post-Doctoral Fellowship at University of Calgary funded by GRIP and GWF projects \$154,000 |
| 2018 | Roland Schlich, travel award of EGU for outstanding research works EUR{500} |
| 2015-2016 | Postdoctoral Research Fellowship of Palermo University EUR{25,000} |
| 2015 | Young Scientist Travel Award of EGU for outstanding research works EUR{900} |
| 2013 | EUROSPEC ES0903 COST Action research grant for outstanding PhD students EUR{900} |
| 2011-2014 | Brescia University Doctoral Scholarship EUR{36,000} |
| 2008-2010 | Mediterranean Agronomic Institute MSc Scholarship EUR{24,000} |
| 2003-2007 | Honor degree of BSc in Agricultural Engineering |



TRAINING OR RESEARCH ACTIVITY

- 15 September–8 December, 2017
Attended to the advanced physical hydrology course organized at U of C in Calgary, Canada
- 17–22 July, 2017
Attended to the short course of Surface Water - Ground Water Interaction: From Watershed Processes to Hyporheic Exchange which organized in Calgary, Canada
- 8–13 July 2013
Participation in field spectroscopy activities of olive grove at Castelvetrano in Palermo, Italy, to map vegetation and soil water content using an optical and thermal proximity sensing images
- 6–9 September 2011
Attendance to 1st IAHR—WMO Short course on Stream gauging organized by The World Meteorological Organization (WMO) of the United Nations (UN)
Faculty of Engineering, 43 Via Branze–Brescia, Italy
- 13–21 January 2010
Training Course in Watershed management,
Mediterranean Agronomic Institute of Bari, Italy
- November 2007
Sixth Regional Training Course on AutoCAD2004
Organized by UNESCO Cairo Office and RIGW in Cairo, Egypt

Supervision and scientific activities

- Co-advisor for a PhD student in University of Palermo working on irrigation management and crop growth modeling under Tunisian conditions (from September 2015 to November 2016)
- Co-advisor for a PhD student in University of Palermo working on assessment of evapotranspiration in Tunisia using physically and empirically based methods (from June 2016 to December 2016)
- Co–advisor of master thesis student in Brescia University in the field of soil hydrology from November 2014 to April 2015
- Co–Convener for the session of Modeling Soil and Vadose Processes: Status and Challenges, organized at the EGU General Assembly 2020. The session number is SSS10\
- Co–Convener for the session of Soil moisture and soil–water constitutive laws, measurement and comprehension of their environmental effects, organized at the EGU General Assembly 2019. The session number is BG2.39/SSS7.11\
- Co–Convener for "**Vadose zone hydrology: General Session** (co-organized)" session at the EGU General Assembly 2015, 2016, 2017 and programmed also for 2018. The session number is HS8.3.1
<http://meetingorganizer.copernicus.org/EGU2018/session/26649>
- Co–Convener for "**Soil compaction: evaluations, problems and solutions** (co-organized)" session at the EGU General Assembly 2017 The session number is SSS7.9
<http://meetingorganizer.copernicus.org/EGU2017/session/23844>

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PROJECT ACTIVITY

| Year | Project |
|-----------|---|
| 2017-2020 | Member of the Groundwater Recharge In Prarie (GRIP) project and Global Water Future Program (GWF) |
| 2012-2016 | Participation to Research Project of National Interest (PRIN2008) funded by the Italian Ministry of University and Research aiming at assessing and managing the water resources in scarcity conditions and under different climate scenarios |

CONGRESSES AND SEMINARS

| Date | Title | Place |
|--------------------------|--|--------------------------|
| 7 - 8 March, 2018 | Participated in Howard Wheeler Symposium regarding Hydrology 2058: learning from the past, shaping the future, Saskatoon, Canada. | Saskatoon, Canada |
| 5- 6 March, 2018 | Participated in Changing Cold Regions Network Finale, | Saskatoon, Canada |
| 26 - 28 June, 2017 | Participated in Calgary Symposium 2017 regarding Characterizing regional groundwater flow systems: Insight from practical applications and theoretical development which held in Calgary, Alberta, Canada | Calgary, Alberta, Canada |
| 17-22 April 2016 | Participated in the General Assembly of the European Geosciences Union (EGU) in Vienna to present the results of three scientific studies were performed during my postdoctoral activities in Palermo University | Palermo, Italy |
| 28 February-5 March 2016 | Participated in workshop of EU COST Action ES1306-Connecting European Connectivity Research – Connecteur, concerning hydrological connectivity in Mediterranean basin | Palermo, Italy |
| 12-17 April 2015 | Presentation scientific results of my research activities to the General Assembly of the European Geosciences Union (EGU) in Vienna and winner of Young Scientist Travel Award (YSTA). It was awarded for innovative researches of young scientists to | Vienna, Austria |



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| | encourage them to participate to EGU. I presented an oral presentation of my research results done during my scientific visit to Brescia | |
| 27 April-2 May 2014 | Presentation of my Ph.D. research results at the General Assembly of the European Geosciences Union (EGU) in Vienna, Austria | Vienna, Austria |
| 15-20 July 2013 | Participation in EUROSPEC ES0903 COST Action Summer School on Field Spectroscopy and Ecological modeling | Palermo, Italy |
| 19-21 June 2013 | Attendance to conference of Four Decades of Progress in Monitoring and Modeling of Processes in the Soil-Plant-Atmosphere, which held in Naples, Italy. | Naples, Italy |
| 7-12 April 2013 | Participation in General Assembly of the European Geosciences Union (EGU) in Vienna, Austria. I also contributed with two scientific posters | Vienna, Austria |
| 10-15 September 2012 | Attendance to XXXIII Conference of Hydraulics and Hydraulic Engineering in Brescia, Italy | Brescia, Italy |
| 2-6 July 2012 | Attendance to annual Doctoral Meeting for Ph.D. students (XXVI cycle) in the field of Hydraulic research in Florence, Italy | Florence, Italy |
| November 2009 | Participation in final conference of Mediterranean dialogue on framing Sustainability in Water Policy evaluation SWAP Project | Bari, Italy |



PUBLICATIONS

Published Articles

5– Amro Negm, Mario Minacapilli and Giuseppe Provenzano (2018). Downscaling of American National Aeronautics and Space Administration (NASA) daily air temperature in Sicily, Italy, and effects on crop reference evapotranspiration. ***Agriculture and Water Management*** Volume 209, 30 October 2018, Pages 151-162 (*Impact factor: 3.182*)

<https://www.sciencedirect.com/science/article/pii/S037837741831062X>

4– Amro Negm, Jay Jabro and Giuseppe Provenzano (2017). Assessing the suitability of American National Aeronautics and Space Administration (NASA) agro-climatology archive to predict daily meteorological variables and reference evapotranspiration in Sicily, Italy. ***Agricultural and Forest Meteorology***, 244–245: 111-121 (*Impact factor: 4.039*)

<https://www.sciencedirect.com/science/article/pii/S0168192317301880>

3– Amro Negm, Fulvio Capodici, Giuseppe Ciraolo, Antonino Maltese, Giuseppe Provenzano and Giovanni Rallo (2017). Assessing the Performance of Thermal Inertia and Hydrus Models to Estimate Surface Soil Water Content. ***Applied Sciences***, 7(10): 975 (*Impact factor: 1.689*)

<http://www.mdpi.com/2076-3417/7/10/975>

2– Barontini S., Boselli V., Louki A., Ben Slima Z., Ghaouch F.E., Labaran R., Raffelli G., Peli M., Al Ani A.M., Vitale N., Borroni M., Martello N., Bettoni B., **Negm A.**, Grossi G., Tomirotti M., Ranzi R. & Bacchi B. (2017). Bridging Mediterranean cultures in the International Year of Soils 2015: a documentary exhibition on irrigation techniques in water scarcity conditions, ***Hydrology Research***, 48(3):789-801, (*Impact factor: 1.801*)

<http://hr.iwaponline.com/content/early/2017/03/13/nh.2017.113>

1– Amro Negm, Marco Falocchi, Stefano Barontini, Baldassare Bacchi and Roberto Ranzi (2013). Assessment of the water balance in an alpine climate: Setup of a micrometeorological station and preliminary results. ***Procedia Environmental Sciences***, 19: 275-284

<http://www.sciencedirect.com/science/article/pii/S1878029613003022>

Articles in review and preparation

– **Amro Negm**, Masaki Hayashi and Kabir Rasouli (in review). **Effects of climate change on depression-focussed groundwater recharge in the Canadian prairies.** *Vadose Zone Journal* (VZJ) (submitted to journal on May 2020)

Kabir Rasouli, **Amro Negm**, John W. Pomeroy, Masaki Hayashi (in preparation). **Surficial geology-based mapping of the future changes in groundwater recharge in a semi-arid watershed in the Canadian Prairies with climate warming.** To be submitted soon to *Hydrology and Earth System Sciences* (HESS)



Conference proceedings

11– **Amro Negm**, Masaki Hayashi, Daniel Itenfisu (2018). Comparison of root water uptake and soil moisture dynamics under contrasting land uses in the canadian prairies. **GeoEdmonton 2018**, ID No. 301

10– **Amro Negm**, Kabir Rasouli, Masaki Hayashi (2018). The impacts of land cover changes on local-scale evapotranspiration and precipitation, and hydrological processes in the Canadian prairies*. **Geophysical Research Abstracts**, Vol. 20, EGU2018-870, 2018

**The research abstract was awarded Roland Schlich travel award, young scientists program of EGU*

9– **Amro Negm**, Mario Minacapilli and Giuseppe Provenzano (2017). Spatial disaggregation of POWER-NASA air temperatures and effects on grass reference evapotranspiration in Sicily, Italy. **Geophysical Research Abstracts**, Vol. 19, EGU2017-13591, 2017

8– Dario Autovino, **Amro Negm**, Giovanni Rallo and Giuseppe Provenzano (2016). Assessing HYDRUS-2D model to estimate soil water contents and olive tree transpiration fluxes under different water distribution systems. **Geophysical Research Abstracts**, Vol. 18, EGU2016-1276, 2016

7– **Amro Negm**, Jay Jabro and Giuseppe Provenzano (2016). Assessment of daily reference evapotranspiration in Sicily by means of POWER-NASA agro-climatology archive. **Geophysical Research Abstracts**, Vol. 18, EGU2016-775, 2016

6– **Amro Negm**, Fulvio Capodici, Giuseppe Ciraolo, Antonino Maltese, Mario Minacapilli, Giuseppe Provenzano and Giovanni Rallo (2016). Assessing the performance of different model-based techniques to estimate water content in the upper soil layer. **Geophysical Research Abstracts**, Vol. 18, EGU2016-13023, 2016

5– **Amro Negm**, Stefano Barontini and Baldassare Bacchi (2015). Inverse modelling to estimate the profile of conductivity at saturation. A case study for a shallow layered soil*. **Geophysical Research Abstracts**, EGU, Vol. 17, EGU2015-599, 2015

**The research abstract was awarded financial support through young scientists program of EGU*

4– **Amro Negm**, Marco Falocchi, Stefano Barontini, Roberto Ranzi, and Baldassare Bacchi (2014). Stima della percolazione e della risalita dalla falda superficiale in un suolo antropizzato in diverse condizioni meteorologiche. *XXXIV Convegno nazionale di Idraulica e Costruzioni Idra*, Bari, 8-10 settembre 2014

3– **Amro Negm**, Marco Falocchi, Stefano Barontini, Roberto Ranzi, and Baldassare Bacchi (2014). Water dynamics and groundwater contributions in a young mountain soil under different meteorological conditions. **Geophysical Research Abstracts**, EGU, Vol. 16. EGU2014–11630

2– **Amro Negm**, Marco Falocchi, Stefano Barontini, Roberto Ranzi and Baldassare Bacchi (2013). Assessment of the water exchange between soil and groundwater in an Alpine valley. **Geophysical Research Abstracts**, EGU, Vol. 15. EGU2013–12768

1– **Amro Negm**, Daniela Agostino, Nicola Lamaddalena, Baldassare Bacchi and Vito Iacobellis (2013). Using an integrated approach between hydrological and crop models to assess surface water balance in ungauged basin. **Geophysical Research Abstracts**, EGU, Vol. 15. EGU2013–12662

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Technical reports

4– Hayashi M., Cey E., Negm A., Rasoli K., Morgan L., Hughes A., *Reducing the uncertainty in groundwater availability and its sensitivity to land- use and climate variability* (2018). Technical report for the progress of GRIP–phase 2, Alberta Innovates #2344

3– Hayashi M., Bentley L., Cey E., Wu P., Noorduijn S., Abdeakhimova P., Mohammed A., Niazi A., Pavlovskil I., **Negm A.** (2017). *Quantifying Groundwater Recharge for Sustainable Water Resource Management*. Final technical report of Groundwater Recharge In Prairies (GRIP) phase 1, Alberta Innovates #2075

2– Barontini S., Louki A., Ben Slima Z., Ghaouch F.E., Labaran R., Raff elli G., Al Ani A., Borroni M., Boselli V., Peli M., **Negm A.**, Vitale N. (2016). *Tecniche irrigue in condizioni di scarsità idrica*, Technical Report del DICATAM, Università degli Studi di Brescia, n°1, XIV-- 20 pp.,2016

1– Marco Falocchi, **Amro Negm**, Stefano Barontini, Roberto Ranzi and Baldassare Bacchi (2015). *The micrometeorological field campaign CividatEX 2012 and 2013: technical report on soil investigations, data collection and pre–processing*. DICATAM, Università degli Studi di Brescia, XIV-- 29 pp.,2015

OTHER INFORMATION

Computer skills and competences

- Windows platforms: Microsoft Office™ (Word, Excel, PowerPoint and Access). In addition to Open Office and Latex
- Statistics software: Statits, Minitab StatSoft, and STATISTICA
- Programming language: Basic Knowledge with Delphi6, Pascal and Matlab 7. In addition to surfing the Internet searching skills
- Modelling Programmes: eg., SEBAL HEC-RAS, DREAM: hydrological models; HYDRUS1D&2D; SWAT: soil and water assessment tool; AQUACROP model and SWAP; COPAM: hydraulic models; GAMS: economical model

Contact references

- Prof. Eng. Roberto Ranzi, Ph.D., Professor at DICATAM- Faculty of Engineering, University of Brescia, Italy. Deputy Head for Research and International Cooperation of DICATAM. Contact: roberto.ranzi@unibs.it
- Dr. Jay Jabro, PhD., Research Soil Scientist, Northern Plain Agricultural Research Laboratory. Sidney, USA. Contact: Jay.Jabro@ARS.USDA.GOV
- Prof. Eng. Giuseppe Provenzano Ph.D., Professor at Department of Agriculture and Forest Science-University of Palermo, ITALY. Contacts: giuseppe.provenzano@unipa.it

Declarations given in the present curriculum must be considered released according to art. 46 and 47 of DPR n. 445/2000.

The present curriculum does not contain confidential and legal information according to art. 4, paragraph 1, points d) and e) of D.Lgs. 30.06.2003 n. 196.

Place and date: 07/02/2021

SIGNATURE