João de Teixeira da Encarnação

Curriculum Vitae

Center for Space Research
3925 W Braker Lane
Ste 200 - WPR 2.9076
Austin TX 78759-5316, USA
+1 (512) 232-6897

4306 Avenua A
Apt 113
Austin TX 78751, USA
+1 (512) 765 1351

EDUCATION

2015 **Ph.D. in Space Geodesy**
Geoscience and Remote Sensing (GRS), Delft University of Technology (TU Delft)
Next-generation satellite gravimetry for measuring mass transport in the Earth system
Committee: Roland Klees (Promotor), Pavel Ditmar (Supervisor), Bert Vermeersen, Byron Tapley, A. Jäggi, Frank Flechtner, Ramon Hanssen

2004 **M.Sc. in Aerospace Engineering**
Astrodynamics and Space missions (AS), TU Delft
Numerical Simulation of Launch Vehicles
Supervisor: Boudewijn Ambrosius

2000 **Lic. in Aerospace Engineering**
Instituto Superior Técnico (IST), Technical University of Lisbon (UTL)
Optimum Aerodynamic Shape for a High Altitude Long Endurance Aerostatic Platform
Supervisor: Theo van Holten (TU Delft, under the Erasmus Programme)

PROFESSIONAL EXPERIENCE

2018 – present	Research Engineering/Scientist Associate, Center for Space Research (CSR), University of Texas at Austin (UTexas), USA
2016 – 2018	Postdoctoral Fellow, Center for Space Research (CSR), University of Texas at Austin (UTexas), USA
2011 – 2016	Research Associate, Astrodynamics and Space missions, TU Delft, the Netherlands
2007 – 2015	PhD Candidate, GRS, TU Delft, the Netherlands
2005 – 2006	Stress Engineer, Global Technics, Leiden, the Netherlands
2004 – 2005	Aerospace Engineer, Delta-Utec, Leiden, the Netherlands

PUBLICATIONS

Refereed Journal publications

2016 Bezděk, A., Sebera, J., **Teixeira da Encarnação, J.**, Klokočník, J., "Time-variable gravity fields derived from GPS tracking of Swarm". In: *Geophys. J. Int.* 205.3, pp. 1665–1669. DOI: 10.1093/gji/ggw094.

2016 Siemes, C., **de Teixeira da Encarnação, J.**, Doornbos, E., IJssel, J., Kraus, J., Pereštý, R., Grunwaldt, L., Apelbaum, G., Flury, J., Holmdahl Olsen, P. E., "Swarm accelerometer data processing from raw accelerations to thermospheric neutral densities". In: *Earth, Planets Sp.* 68.1, p. 92. DOI: 10.1186/s40623-016-0474-5.

2016 **Teixeira da Encarnação, J.**, Arnold, D., Bezděk, A., Dahle, C., Doornbos, E., Van Den Ijssel, J., Jäggi, A., Mayer-Gürr, T., Sebera, J., Visser, P., Zehentner, N., "Gravity field models derived from Swarm GPS data". In: *Earth, Planets Sp.* 68.1, p. 127. DOI: 10.1186/s40623-016-0499-9.

2015 IJssel, J., **Encarnação, J.**, Doornbos, E., Visser, P., "Precise science orbits for the Swarm satellite constellation". In: *Adv. Sp. Res.* 56.6, pp. 1042–1055. DOI: 10.1016/j.asr.2015.06.002.

2013 Hashemi Farahani, H., Ditmar, P., Klees, R., **Teixeira da Encarnação, J.**, Liu, X., Zhao, Q., Guo, J., "Validation of static gravity field models using GRACE K-band ranging and GOCE gradiometry data". In: *Geophys. J. Int.* 194.2, pp. 751–771. DOI: 10.1093/gji/ggt149.

2013 Olsen, N., Friis-Christensen, E. A., Floberghagen, R., Alken, P., Beggan, C. D., Chulliat, A., Doornbos, E., **Encarnação, J. T.**, Hamilton, B., Hulot, G., IJssel, J., Kuvshinov, A. A. V. A., Lesur, V., Lühr, H., Macmillan, S., Maus, S., Noja, M., Olsen, P. E. H., Park, J., Plank, G., Püthe, C., Rauberg, J., Ritter, P., Rother, M., Sabaka, T. J., Schachtschneider, R., Sirol, O., Stolle, C., Thébault, E., Thomson, A. W. P., Tøffner-Clausen, L., Velímský, J., Vigneron, P., Visser, P. N. A. M., "The Swarm Satellite Constellation Application and Research Facility (SCARF) and Swarm data products". In: *Earth, Planets Sp.* 65.11, pp. 1189–1200. DOI: 10.5047/eps.2013.07.001.

2013 Visser, P., Doornbos, E., IJssel, J., **Teixeira da Encarnação, J.,** "Thermospheric density and wind retrieval from Swarm observations". In: *Earth, Planets Sp.* 65.11, pp. 1319–1331. DOI: 10.5047/eps.2013.08.003.

2012 Ditmar, P., **Encarnação, J.**, Hashemi Farahani, H., "Understanding data noise in gravity field recovery on the basis of inter-satellite ranging measurements acquired by the satellite gravimetry mission GRACE". In: *J. Geod.* 86.6, pp. 441–465. DOI: 10.1007/s00190-011-0531-6.

2011 Gunter, B. C., **Encarnacao, J.**, Ditmar, P., Klees, R., Encarnaçao, J., Ditmar, P., Klees, R., "Using Satellite Constellations for Improved Determination of Earth's Time-Variable Gravity". In: *J. Spacecr. Rockets* 48.2, pp. 368–377. DOI: 10.2514/1.50926.

2007 Resendes, D. P., Mota, S., Mendonça, J. T., Sanders, B., **Encarnação, J.**, Del Amo, J. G., "Laser Propulsion for Ground Launch". en. In: *J. Propuls. Power* 23.1, pp. 73–80. DOI: 10.2514/1.24527.

Peer Reviewed Conference Proceedings

2012 Gunter, B. C., **Encarnação, J.**, Ditmar, P., Klees, R., Van Barneveld, P. W. L., Visser, P., "Deriving global time-variable gravity from precise orbits of the Iridium NEXT constellation". In: *Adv. Astronaut. Sci.* Vol. 142, pp. 2087–2096.

2010 Gunter, B. C., Ditmar, P., **Encarnação, J.,** "The determination of time variable gravity from a constellation of non-dedicated satellites". In: *Adv. Astronaut. Sci.* Pittsburgh, pp. 1999–2007.

2009 Gunter, B. C., **Encarnação, J.**, Ditmar, P., Klees, R., "The use of satellite constellations and formations for future gravity field missions". In: *Adv. Astronaut. Sci.* Savannah, pp. 1357–1368.

2008 **Encarnação, J.**, Ditmar, P., Liu, X., "Analysis of Satellite Formations in the Context of Gravity Field Retrieval". In: *3rd Int. Symp. Form. Flying, Mission. Technol.* Ed. by K Fletcher. ESA SP-654. Rijswijk, the Netherlands: 23-25 Apr.

2008 **Encarnação, J.**, Klees, R., Zapreeva, E., Ditmar, P., Kusche, J., "Influence of Hydrology-Related Temporal Aliasing on the Quality of Monthly Models Derived from GRACE Satellite Gravimetric Data". In: *Obs. our Chang. Earth* 133, pp. 323–328. DOI: 10.1007/978-3-540-85426-5_38.

2006 Resendes, D. P., Mota, S., Mendonça, J. T., Sanders, B., **Encarnação, J.**, Amo, J. G., Myrabo, L. N., "Laser Propulsion for ESA Missions: Ground to Orbit Launch Project Overview — Part 1". en. In: *AIP Conf. Proc.* Vol. 830. 1. AIP, pp. 576–587. DOI: 10.1063/1.2203299.

2005 Resendes, D. P., Mota, S., Mendonça, J. T., Sanders, B., **Encarnação, J.**, Del Amo, J. G., "Laser Propulsion for Ground to Orbit Launch". In: *29th Int. Electr. Propuls. Conf.* IEPC-2005-310.

Other Publications

2015 Sneeuw, N., Iran-Pour, S., Reubelt, T., Sneeuw, N., Daras, I., Murböck, M., Gruber, T., Pail, R., Weigelt, M., Dam, T., Visser, P., **Teixeira Encarnação, J.**, IJssel, J., Tonetti, S., Cornara, S., Cesare, S., *Assessment of Satellite Constellations for Monitoring the Variations in Earth Gravity Field "SC4MGV"*. Tech. rep. European Space Agency.

2010 Anselmi, A., Cesare, S., Visser, P., Van Dam, T., Sneeuw, N., Gruber, T., Altes, B., Christophe, B., Cossu, F., Ditmar, P., Murboeck, M., Parisch, M., Renard, M., Reubelt, T., Sechi, G., **Teixeira Encarnação, J,** *Assessment of a next Generation Gravity Mission for Monitoring the Variations of Earth's Gravity Field*. Tech. rep. Thales Alenia Space report SD-RP-AI-0668: ESA Contract No. 22643/09/NL/AF.

AWARDS

2017 H2020 Marie Skłodowska-Curie Individual Fellowship Seal of Excellent to the proposal on *Direct Gravimetric data assimilation into Geophysical models*

GRANTS

Sep. 2017 – May 2019 *Multi-approach gravity field models from Swarm GPS data*
European Space Agency (Noordwijk, Netherlands)
100k €
Contract: SD-ITT-1.1 (part of contract 4000109587/13/I-NB)

May 2019 – Jun. 2020 *Transfer To Operation of production of EGF_SHA_2_ products*
European Space Agency (Noordwijk, Netherlands)
73k €
Contract: SW-CO-DTU-GS-111 (part of contract 4000109587/13/I-NB)

INVITED PRESENTATIONS

2017 **Teixeira Encarnação, J.**, "Satellite Gravimetry". In: *Summer Sch. Data Assim. its Appl. Oceanogr. Hydrol. Risk Saf. Reserv. Eng*.

2015 **Teixeira Encarnação, J.**, Arnold, D., Bezdek, A., Dahle, C., Doornbos, E., Ijssel, J. V. D., Jäggi, A., Mayer-gürr, T., Sebera, J., Visser, P., Zehentner, N., "First monthly gravity field solutions derived from GPS orbits of Swarm". In: *AGU Fall Meet.* San Francisco, CA, USA: 14-18 Dec.

CONFERENCE ACTIVITY

Oral presentations

2019 Visser, P., **Encarnação, J. d. T.**, Doornbos, E., IJssel, J., Mao, X., Iorfida, E., Arnold, D., Jäggi, A., Meyer, U., Bezděk, A., Sebera, J., Klokočník, J., Ellmer, M., Mayer-Gürr, T., Krauss, S., Guo, J., Zhang, C., Shum, C., Zhang, Y., "Complete 5-years time series of combined monthly gravity field models derived from Swarm GPS data". In: *EGU Gen. Assem.* EGU2019-13412. Vienna, Austria: 7-12 Apr. DOI: 10.13140/RG.2.2.11449.01123.

2018 **Encarnacao, J.**, Visser, P., Doornbos, E., IJssel, J., Mao, X., Iorfida, E., Arnold, D., Jäggi, A., Meyer, U., Bezdek, A., Sebera, J., Klokocnik, J., Ellmer, M., Mayer-Gürr, T., Zehentner, N., Guo, J., Luk, P., Shum, C. K., Zhang, Y. Y., "Signal contents of combined monthly gravity field models derived from Swarm GPS data Multi-approach gravity field models from Swarm GPS data". In: *EGU Gen. Assem.* Vienna, Austria: 8-13 Apr. DOI: 10.13140/RG.2.2.24263.39845.

2018 Jäggi, A, Meyer, U., Schreiter, L., Sterken, V., Dahle, C., Arnold, D., **Encarnacao, J.**, Visser, P., IJssel, J., Mao, X., Iorfida, E., Bezdek, A., Sebera, J., Mayer-GÜrr, T., Zehentner, N., Shum, C. K., Lück, C., Rietbroek, R., Kusche, J., "Assessment of individual and combined gravity field solutions from Swarm GPS data and mitigation of systematic errors". In: *EGU Gen. Assem.* EGU2018-8944. Vienna, Austria: 8-13 Apr.

2018 Visser, P., **Encarnação, J. T.**, Doornbos, E., IJssel, J., Mao, X., Iorfida, E., Arnold, D., Jäggi, A., Meyer, U., Bezděk, A., Sebera, J., Klokočnik, J., Ellmer, M., Mayer-Gürr, T., Zehentner, N., Guo, J., Zhang, Y., Shum, C. K., "Multi-approach Gravity Field Models from Swarm GPS data". In: *42nd COSPAR Sci. Assem.* Pasadena, CA, USA: 14-22 Jul.

2017 **Teixeira Encarnação, J.**, Arnold, D., Bezdek, A., Dahle, C., Jäggi, A., Mayer-gürr, T., Sebera, J., Shum, C., Visser, P., Zehentner, N., "Swarm as an Observing Platform for Large Surface Mass Transport Processes". In: *4th Swarm Sci. Meet.* Banff, Canada: 20-24 Mar.

2015 **Teixeira Encarnação, J.**, Arnold, D., Bezdek, A., Dahle, C., Doornbos, E., Ijssel, J. V. D., Jäggi, A., Mayer-gürr, T., Sebera, J., Visser, P., Zehentner, N., "First monthly gravity field solutions derived from GPS orbits of Swarm". In: *AGU Fall Meet.* San Francisco, CA, USA: 14-18 Dec.

2015 **Teixeira Encarnação, J.**, IJssel, J., Doornbos, E., Visser, P. N., "Frequency domain combination of POD-driven and measured accelerations". In: *5th Swarm Data Qual. Work.* Paris, France: 7 - 10 Sep.

2014 **Teixeira Encarnação, J. G.**, IJssel, J., Doornbos, E., Visser, P., "POD-assisted calibration of Swarms Accelerometer Data". In: *4th Swarm Data Qual. Work.* Postdam, Germany: 2-5 Dec.

2014 **Teixeira Encarnação, J.**, Doornbos, E., IJssel, J., Visser, P. N., "Combination of Swarm's Uncalibrated Accelerometer Data with POD-Based Accelerometry". In: *3rd Swarm Sci. Meet.* Copenhagen, Denmark: 19-20 Jun.

2014 **Teixeira Encarnação, J.**, IJssel, J., Doornbos, E., Visser, P. N., "Preliminary analysis of accelerometer data". In: *2nd Swarm Data Qual. Work.* Rome, Italy: 26-27 Mar.

2008 **Encarnação, J.**, Ditmar, P., Liu, X., "Analysis of Satellite Formations in the Context of Gravity Field Retrieval". In: *3rd Int. Symp. Form. Flying, Mission. Technol.* Ed. by K Fletcher. ESA SP-654. Rijswijk, the Netherlands: 23-25 Apr.

2002 **Encarnação, J.**, "Single Stage To Orbit Minimum Requirements Through Numerical Simulation". In: *34th COSPAR Sci. Assem. Second World Sp. Congr.* Houston, TX, USA: 10-19 Oct.

Poster presentations

2018 **de Teixeira da Encarnação, J.**, Save, H., Tapley, B., Rim, H. J., "GRACE's accelerometer scale-factor calibration". In: *GRACE/ GRACE-FO Sci. Team Meet.* Potsdam, Germany: 9-11 Oct.

2018 **de Teixeira da Encarnação, J.**, Arnold, D, Bezdek, A, Doornbos, E, Ellmer, M, Guo, J, IJssel, J, Iorfida, E, Jäggi, A, Klokočnik, J, Mao, X, Mayer-Gürr, T, Meyer, U, Sebera, J, Shum, C. K., Visser, P, Zehentner, N, Zhang, Y., Zhang, C, "Observing Earth's mass transport processes with the Swarm satellites". In: *Gravity, Geoid Height Syst. 2 Symp.* Copenhagen, Denmark: 17-21 Sep.

2018 **Teixeira da Encarnação, J.**, Save, H., Tapley, B. D., Rim, H. J., "Analysis of GRACE's accelerometer scale-factor calibration". In: *AGU Fall Meet.* G13C-0528. Washington, D.C.: 10-14 Dec.

2018 Zehentner, N., Mayer-Gürr, T., Ellmer, M., **Encarnacao, J. T.**, Visser, P., Doornbos, E., IJssel, J. V., Mao, X., Iorfida, E., Arnold, D., Jäggi, A., Meyer, U., Bezdek, A., Sebera, J., Klokocnik, J., Guo, J., Shum, C., "Investigations of GNSS-derived baselines for gravity field recovery". In: *EGU Gen. Assem.* EGU2018-11920. Vienna, Austria: 8-13 Apr. DOI: 10.13140/RG.2.2.18307.81440.

2018 Zhang, C., Guo, J.-Y., Bezděk, A., Shum, C. K., Cai, Z., Zhang, Y., **de Teixeira da Encarnação, J.**, Visser, P., "Swarm Temporal Gravity Field Estimates Using Acceleration Approach". In: *9th Int. Work. TibXS (Multi-observations Interpret. Tibet. Xinjiang Sib.* Zhangye, Gansu Province, China: 6-10 Aug.

2017 **Encarnacao, J.**, Save, H., Siemes, C., Doornbos, E., Tapley, B., "Temperature corrected-calibration of GRACE's accelerometer". In: *AGU Fall Meet.* G31B-0904. New Orleans: 11-15 Dec. DOI: 10.13140/RG.2.2.20396.97929.

2017 **Teixeira Encarnação, J.**, Arnold, D., Bezdek, A., Dahle, C., Doornbos, E., Ijssel, J. V. D., Jäggi, A., Mayer-gürr, T., Sebera, J., Shum, C., Visser, P., Zehentner, N., "Gravity field models derived from Swarm GPS data". In: *EGU Gen. Assem.* EGU2017-9218. Vienna, Austria: 23-28 Apr.

2016 Doornbos, E., **de Teixeira da Encarnação, J.**, IJss, J., Siemes, C., Grunwaldt, L., Peresty, R., Kraus, J., Flury, J., Apelbaum, G., Olsen, P. E. H., "Thermospheric neutral densities derived from Swarm accelerometer and GPS data". In: *ESA Living Planet Symp.* Prague, Czech Republic: 9-13 May.

2016 Jäggi, A., Meyer, U., Jean, Y., Susnik, A., Dach, R., Weigelt, M., Dam, T., Li, Z., Chen, Q., Flechtner, F., Gruber, C., Poropat, L., Güntner, A., Gouweleeuw, B., Mayer-Gürr, T., Kvas, A., Klinger, B., Martinis, S., Zwenzner, H., Bruinsma, S., Lemoine, J.-M., Biancale, R., Flury, J., Bandikova, T., Bourgogne, S., Steffen, H., **de Teixeira da Encarnação, J.**, Horwath, M., "European Gravity Service for Improved Emergency Management - Status and Project Highlights". In: *Int. Symp. Gravity, Geoid Height Syst.* Thessaloniki, Greece: 19-23 Sep.

2016 Siemes, C., Grunwaldt, L., Peresty, R., Kraus, J., Doornbos, E., **de Teixeira da Encarnação, J.**, IJssel, J., Flury, J., Apelbaum, G., Olsen, P. E. H., "Improvements of the Swarm Accelerometer Data Processing". In: *ESA Living Planet Symp.* Prague, Czech Republic: 9-13 May.

2016 Sneew, N, Iran Pour, S, Reubelt, T, Daras, I, Murböck, M, Pail, R, Gruber, T, Visser, P, **Encarnacao, J**, IJssel, J, Others, "ESA SC4MGV Study - Assessment of Satellite Constellations for Monitoring the Variations in Earth Gravity Field". In: *ESA Living Planet Symp.* Prague, Czech Republic: 9-13 May.

2016 **Teixeira Encarnação, J.**, Arnold, D., Bezdek, A., Dahle, C., Jäggi, A., Mayer-gürr, T., Sebera, J., Visser, P., Zehentner, N., "Gravity field models derived from Swarm GPS data". In: *EGU Gen. Assem.* EGU2016-59. Vienna, Austria: 17-22 Apr. DOI: 10.13140/RG.2.1.3909.4642.

2015 Astafyeva, E, Zakharenkova, I, Foerster, M, Doornbos, E, **Teixeira da Encarnacao, J.**, Siemes, C, "Ionospheric and Thermospheric Response to the 2015 St. Patrick's Day Storm - a Global Multi-Instrumental Overview". In: *AGU Fall Meet.* San Francisco, CA, USA: 12-16 Dec.

2015 Doornbos, E., Siemes, C., **Teixeira da Encarnação, J**, Perestý, R., Grunwaldt, L., Kraus, J., Holmdahl Olsen, P. E., IJssel, J, Flury, J., Apelbaum, G., "Processing of Swarm Accelerometer Data into Thermospheric Neutral Densities". In: *AGU Fall Meet.* Abstract SA31D-2371. San Francisco, CA, USA: 14-18 Dec.

2015 **Encarnacao, J.**, Ditmar, P., Klees, R., "Impact of Orbit Position Errors on Future Satellite Gravity Models". In: *AGU Fall Meet.* 14-18 Dec.

2014 Bruinsma, S, Doornbos, E, Siemes, C, Perestý, R, Kraus, J, Bezdek, A, IJssel, J, **Teixeira da Encarnação, J**, Visser, P. N., "Results from the First Year of Swarm GPS Receiver and Accelerometer Data". In: *AGU Fall Meet.* San Francisco, CA, USA: 15-19 Dec.

2014 Iran Pour, S, Weigelt, M, Murböck, M, Tonetti, S, Visser, P, Daras, I, **Encarnacao, J**, Cesare, S, Siemes, C, IJssel, J, Others, "Search strategies for optimal double pair scenarios for future gravity satellite missions - experience from the ESA SC4MGV project". In: *5th Int. GOCE User Work.* Paris, France: 25-28 Nov.

2013 Doornbos, E, Bruinsma, S, Fritsche, B, Visser, P, Van Den IJssel, J, **de Teixeira da Encarnação, J.**, Kern, M, "Air density and wind retrieval using GOCE data". In: *ESA Living Planet Symp.* Edinburgh, United Kingdom: 9-13 Sep.

2013 Olsen, N., Alken, P., Beggan, C., Chulliat, A., Doornbos, E., **Encarnação, J.**, Floberghagen, R., Friis-Christensen, E. A., Hamilton, B., Hulot, G., IJssel, J. V. D., Kuvshinov, A. V., Lesur, V., Luhr, H., Macmillan, S., Maus, S., Olsen, P. E. H., Park, J., Plank, G., Püthe, C., Ritter, P., Rother, M., Sabaka, T. J., Stolle, C., Thebault, E., Thomson, A. W. P., Tøffner-Clausen, L., Velimsky, J., Visser, P. N., "SCARF - the swarm satellite constellation application and research facility". In: *ESA Living Planet Symp.* Edinburgh, United Kingdom: 9-13 Sep.

2012 Doornbos, E, Bruinsma, S, Koppenwallner, G, Fritsche, B, IJssel, J, Visser, P, **Teixeira da Encarnação, J**, Kern, M, "Thermospheric density and wind from GOCE thruster activation and accelerometer data". In: *EGU Gen. Assem.* Vienna, Austria: 22-27 Apr.

2012 Gunter, B. C., **Teixeira da Encarnação, J**, Ditmar, P, Klees, R, "Potential contributions to space geodesy from the IridiumNEXT constellation". In: *AGU Fall Meet.* San Francisco, CA, USA: 3-7 Dec.

2011 Gunter, B, **Teixeira da Encarnação, J**, Ditmar, P, Klees, R, "An investigation into new advances in geodesy utilizing future satellite constellations". In: *AGU Fall Meet.* SA24A-03. San Francisco, CA, USA: 5-9 Dec.

2010 Ditmar, P., Hashemi Farahani, H., **Teixeira da Encarnação, J.,** "Mitigation of along-track artifacts in unconstrained mass transport models based on GRACE satellite data". In: *EGU Gen. Assem.* Vienna, Austria: 2-7 May.

2010 Gunter, B, **Teixeira da Encarnação, J**, Ditmar, P, Klees, R, "Using existing satellite constellations to complement current and future dedicated gravity field missions". In: *AGU Fall Meet.* G41A-0788. San Francisco, CA, USA: 13-17 Dec.

2010 Hashemi Farahani, H, Ditmar, P, **Teixeira da Encarnação, J**, Liu, X, "Contribution of an accurate determination of GRACE satellite orbits to precise mass transport modeling". In: *EGU Gen. Assem.* Vienna, Austria: 2-7 May.

2008 **Teixeira Encarnação, J.**, Ditmar, P. G., Klees, R., "Spectral analysis of positioning modelling errors in gravimetric data". In: *IAG Symp. Gravity, Geoid, Earth Obs.* Chania, Greece: 23-27 Jun.

2007 **Teixeira Encarnação, J. G.**, Ditmar, P. G., Klees, R., "Temporal aliasing in GRACE monthly solutions". In: *Intergeo*. Leipzig, Germany: 25-27 Sep.

2007 **Teixeira Encarnação, J.**, Ditmar, P. G., Klees, R., "Influence of hydrology-related temporal aliasing on the quality of monthly models derived from GRACE satellite gravimetric data". In: *VMSG Symp.* Utrecht, The Netherlands: 7-8 Nov.

TEACHING EXPERIENCE

TU Delft — Tutor for the Design Synthesis Exercise, (2007–2011)
Tutor for the Test, Analysis & Simulation project (2013–2016)

RESEARCH SUPERVISION

2019 **Co-supervisor**, visiting TU Delft student, CSR
MSc thesis

2016 **Co-supervisor**, one external student from the Aeronautical Engineering at Inholland University of Applied Sciences, TU Delft
Bachelor of Engineering final project

RESEARCH PROJECTS

2016 – 2019	gravity Recovery And Climate Experiment (GRACE) Two-year Mission Extension (NASA contract NNL14AA00C)
2017 – 2018	Multi-approach gravity field models from Swarm GPS data (DISC contract SD-ITT-1.1, part of ESA contract 4000109587/13/I-NB)
2013 – 2015	Assessment of Satellite Constellations for Monitoring the Variations in Earth's Gravity Field (ESA contract 4000108663/13/NL/MV)
2013	GOCE+ Theme3: Air density and wind retrieval using GOCE data (ESA contract 400010284/11/NL/EL)
2011 – 2016	Development of the Swarm Level 2 Algorithms and Associated Level 2 Processing Facility (ESA Contract 4000102140/10/NL/JA)
2010	Assessment of a Next Generation Gravity Mission for Monitoring the Variations of Earth's Gravity Field (ESTEC contract 22643/09/NL/AF)
2008	Monitoring and Modelling Individual Sources of Mass Distribution and Transport in the Earth System by Means of Satellites (ESA contract 20403)

SERVICE TO PROFESSION

Reviewer for scientific papers submitted to *Advances in Space Research*, *Annales Geophysicae*, *Journal of Geodesy*, *Communications in Nonlinear Science and Numerical Simulation*, *IEEE Geoscience and Remote Sensing Letters*, *International Association of Geodesy Symposia*, *Journal of Geophysical Research: Solid Earth*, *Remote Sensing*, *Sensors* and *Solid Earth*, cf. Publons

EXTRA TRAINING

2017	Dealing with Difficult People, Jeff Stellmach, UTexas
2017	Conflict Management Foundations, Kimberly Sullivan, UTexas
2017	Leading without formal authority, Emil Kresl, UTexas
2017	Meeting effectiveness, Emil Kresl, UTexas
2015	Scientific Writing, Sören Johnson, TU Delft
1993	Certificate of Proficiency in English
1993	Radio Amateur, call sign CT3IU, class B

COURSES PREPARED TO TEACH

Satellite Geodesy
Satellite Gravimetry
Astrodynamics
Earth Observation
Data Processing
Programming (any level/language)

LANGUAGES

	Speaking	Reading	Writing
Portuguese		(mother tongue)	
English	excellent	excellent	excellent
Spanish	good	good	fair
Italian	good	good	fair
Dutch	fair	fair	limited
French	fair	fair	limited

PROFESSIONAL MEMBERSHIPS

since 2012	American Geophysical Union
since 2016	European Geosciences Union

REFERENCES

Professor Emeritus Byron Tapley
Center for Space Research of University of Texas at Austin
3925 West Braker Lane, Suite 200
Austin, Texas 78759-5321, USA
+1 512 471 5573
tapley@csr.utexas.edu

Professor Doctor Frank Flechtner
German Research Centre for Geosciences
Münchner Str. 20
Building c/o DLR Oberpfaffenhofen, Room 113
82234 Weßling, Munich, Germany
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Professor Doctor Ingenieur Pieter Visser
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