

**GeoGebra Institute Application
to establish the**

GeoGebra Institute of Canarias (IGCan)

February 10 - 2014, Gran Canaria

The International GeoGebra Institute (IGI, <http://www.geogebra.org/igi>) is a non-profit organization that works together with independent regionally-based local *GeoGebra Institutes*. These local organizations need to apply to the International GeoGebra Institute in order to become an officially accredited GeoGebra Institute. Please submit this application form directly to IGI (igi@geogebra.org).

1 Acceptance of IGI Vision, Goals and Procedures

The applying GeoGebra Institute declares with this application that it accepts and shares the vision, goals, non-commercial nature, licensing and following procedures with the International GeoGebra Institute and its other GeoGebra Institutes.

1.1 Vision of the International GeoGebra Institute

The International GeoGebra Institute (IGI) provides free dynamic mathematics software and shares expertise in training, support and the development of materials for all students and teachers to improve mathematics, science and technology education world-wide. It nurtures and promotes collaboration between practitioners and researchers, seeking to establish self-sustaining user communities.

1.2 Mission of IGI and GeoGebra Institutes

The International GeoGebra Institute and its local GeoGebra Institutes share the following three goals:

1. **Training and Support:** To coordinate and provide professional development opportunities and support for both pre-service and in-service teachers.
2. **Development and Sharing:** To develop and share workshop resources and classroom materials, and to continually improve and extend the dynamic mathematics software GeoGebra.
3. **Research and Collaboration:** To conduct and support GeoGebra-related research which focuses on the teaching and learning of mathematics in order to inform and improve training and development activities, and to promote collaboration between IGI and local GeoGebra Institutes and between international colleagues.

1.3 Non-Commercial Nature

The applying GeoGebra Institute declares that it is (part of) a non-profit organization (e.g., university, teacher education college) with mainly non-commercial interests. Any use of GeoGebra for a commercial purpose (e.g., books, online materials, workshops) is subject to the license terms set out at <http://www.geogebra.org/license>. If you intend to use GeoGebra for a commercial purpose, including contractual engagements with Government funding bodies, please contact office@geogebra.org to arrange a Collaboration Agreement.

1.4 Research and Research Grants

IGI encourages GeoGebra Institutes to undertake research related to understanding the effects and effectiveness of GeoGebra in support of teaching and learning. IGI is also happy to support GeoGebra Institutes interested in applying for funding to support the production of curriculum materials, including textbooks (print and e-books) and on-line learning platforms.

GeoGebra Institutes must inform IGI regarding all proposed research and research grant activities in advance. Where possible, IGI should be included as a partner in all research and research grant activities.

1.5 Licensing

The applying GeoGebra Institute declares that it will share all developed materials under a Creative Commons Attribution, Share Alike license (see <http://creativecommons.org/licenses/by-sa/3.0/>) or a similar license and that it will respect the license of the GeoGebra software itself (see <http://www.geogebra.org/license>). The spirit of IGI and its GeoGebra Institutes is to share materials and be open for collaboration with everyone.

1.6 Requirements

1.6.1 Activities

The applying GeoGebra Institute declares that it will actively contribute to the GeoGebra community by

- developing and sharing materials via GeoGebraTube on an account of the same name as the GeoGebra Institut (<http://www.geogebraTube.org/>),
- answering user questions via the GeoGebra Forum (<http://www.geogebra.org/forum/>),
- helping with translations of the GeoGebra software and documentation (http://wiki.geogebra.org/en/Translation_of_GeoGebra), and/or
- organizing and promoting GeoGebra events like workshops and conferences (<http://www.geogebra.org/events>)
- GeoGebra Institutes are required to host all GeoGebra applets and relevant content on their GeoGebraTube account. IGI encourages GeoGebra Institutes to create and assemble teaching and learning materials that are country/regionally relevant.

1.6.2 Website

The applying GeoGebra Institute states that it will regularly (at least once a month) describe its activities (workshops, materials, translation updates, etc.) on its GeoGebra Institute Website provided by IGI, see [http://wiki.geogebra.org/en/Establish a Regional GeoGebra Institutes Website](http://wiki.geogebra.org/en/Establish_a_Regional_GeoGebra_Institutes_Website).

GeoGebra Institutes are not permitted to create independent urls, websites, wikis, blogs, or email accounts referencing GeoGebra without the explicit permission of IGI.

1.6.3 Chief Communicator

Each GeoGebra Institute appoints a Chief Communicator. This can be the Chair of the GeoGebra Institute or another person. He or she is responsible for

- publishing information about the GeoGebra Institute's activities on its website (see **¡Error! No se encuentra el origen de la referencia.**),
- staying in touch with the IGI team via email and/or web-conferences to exchange information and materials (e.g. events, publications, photos, videos, etc.)

1.7 Period of GeoGebra Institute Accreditation

After your GeoGebra Institute application is accepted, the official accreditation of your GeoGebra Institute is valid for an unlimited period. The Chair of your local GeoGebra Institute can end this agreement any time by sending an email to igi@geogebra.org, just as well as IGI has the right to withdraw the accreditation of a GeoGebra Institute if it is in violation of any of the aforementioned common IGI goals or requirements.

2 Structure and Activities of applying GeoGebra Institute

2.1 Structure of GeoGebra Institute

The GeoGebra Institute of the Canary Islands is part of the *Canarian Society Isaac Newton of Teachers of Mathematics* (<http://sinewton.org>).

The *Canarian Society Isaac Newton of Teachers of Mathematics* (Spanish acronym: SCPM Isaac Newton) is an association founded in 1978 and among its aims, as set out in its statutes, we can highlight the following:

- Updating and improving the performance of mathematics teachers.
- Fostering and developing innovations related to the teaching of mathematics and their implementation in the classroom.
- Disseminating and popularising mathematics.
- Promoting and supporting the introduction of resources and materials into the classroom and the use of new technology for teaching and learning mathematics.

The *Canarian Society Isaac Newton of Teachers of Mathematics* is structured by a regional board and a group of coordinators which help to organize the activities of the society on each island.

Officials are democratically elected by the members of the association every two years at an Annual General Meeting. There are currently around 350 members.

The head office of SCPM ISAAC NEWTON is located at The House-Museum of Educational Mathematics in La Laguna (Tenerife) (sinewton@sinewton.org)

The *GeoGebra Institute of Canarias* (Spanish acronym: IGCCan) will be managed by the *Isaac Newton Society* via a committee formed for that purpose.

The IGCCan website will be located at the URL provided by IGI as described in

http://wiki.geogebra.org/en/Establish_a_Regional_GeoGebra_Institutes_Website.

2.2 People of GeoGebra Institute

Officers of SCPM NEWTON

- **Carlos Ueno Jacue.** cuenjac@gmail.com

Graduated in Mathematics from the Universidad Complutense de Madrid (1991). He completed a Master of Science in Mathematics at the University of Toronto (School Year 1992/93). In 1999 he started to work as a Secondary School Math Teacher, passing the Teaching Official Examination (Canarias) in 2000 and gaining a permanent math teacher position.

In 2008 Carlos retakes his research interests, completing a PhD Program in December, 2012 (Thesis: “*Polynomial and Regular Images of Euclidean Spaces*”, Universidad Complutense de Madrid). Carlos has published part of his research work in prestigious international journals (*Proceedings of the London Mathematical Society, International Mathematics Research Notices, Journal of Pure and Applied Algebra...*) and has combined this activity with his teaching duties.

He has also been involved in the European *Intergeo* Project (<http://www.i2geo.net>), and has helped to disseminate the use of DGS and GeoGebra in the Canarian Region. On June 2013 a team of teachers within the “*SCPM Isaac Newton*”, coordinated by Carlos, organized the “*I Encuentro GeoGebra Canarias*”, which hopefully constituted a first step towards the creation of a GeoGebra Institute in Canarias.

- **Pablo Espina Brito.** pebrito@gmail.com

Graduated in Physics from the University of Zaragoza (1986) and Teacher of Mathematics in Secondary Education since then.

Member of the Medusa ICT Project team, dependent on the Department of Education of the Canary Islands Government (2001-2010).

ICT accreditation from the Department of Education of the Canary Islands Government (2013).

He has conducted several courses and seminars about ICT, mainly related to mathematical software such as GeoGebra or Graphic Calculus.

- **Nereida M^a Santana Almeida.** nereida.m.santana@gmail.com

Graduated in Mathematics from the University of Granada, specialist in Methodology (2005). She completed a Master’s Degree on education and learning of experimental, social and mathematical sciences at the University of Huelva. As a result of her Master’s project, she has submitted for publication articles on mathematical education and GeoGebra.

She has worked as a secondary teacher for 8 years, teaching Mathematics and Information Technology.

She has taught many courses, mainly on the following topics:

- Blogging: Wordpress, Creation, administration and dynamization of blogs.
- Moodle: Creating didactic resources to work with the moodle LMS (Learning Management System) and the EVAGD canarian platform.
- ICT: Integration of the ICT in the education process.

- **Ángeles Yanira Duque Hernández.** yanidunque@gmail.com

Graduated in Mathematics from the University of La Laguna.

She has worked as a teacher for 10 years. During this time, she played a variety of roles in the schools where she worked.

She has taken part in conferences and meetings for integrating technology into teaching and learning, sharing her classroom experience.

Currently, she is working as a teacher coordinator in the Tenerife North Teachers' Centre, and she is designing programs for teacher professional development as a means to improve educational effectiveness.

Members of other institutions involved in the project:

- **Matías Camacho Machín.** mcamacho@ull.edu.es

Graduated in Mathematics from the University of La Laguna (1979). He completed his Bachelor Thesis with Outstanding rating in 1984. He successfully defended his Ph.D. in Mathematics at the University of La Laguna in the Area of Applied Mathematics in July 1991. He started as a teacher in the Education Faculty of the University of La Laguna (ULL) in 1981 and is currently a Professor of the Department of Mathematical Analysis of the ULL, a position he took up in 1996. He was appointed to become a Full Professor in February 2012. He has worked exclusively for more than 30 years in teaching, research and/or university management at the ULL, after a two-year period working as a secondary school teacher.

In his professional work, he has combined teaching and research with various management responsibilities. He has more than 95 scientific publications in journals, book chapters and in proceedings/transactions. Most of the publications are referred and/or indexed in different Spanish or international databases: MathEduc, SCOPUS - SIMAGO , ERIC , LATINDEX , RECS , DICE , REHS , CINDOC , ISOC , ISI among others. His research work has been focused on two main lines.

- Training and professional development of mathematics teachers.
- Teaching and Learning Mathematical Analysis and Problem Solving using ICT.

Currently, his main goal is to establish the convergence of the two lines of research mentioned above. One of the main objectives of the research project of the National Plan in force, funded by the MICINN (Spanish Ministry of Education), is Problem Solving and Technology in the training and professional development of mathematics teachers.

He has advised five Ph.D. Theses in the field of mathematics education, one of them received a European Mention. The last two Theses were co-directed with Drs. Santos-Trigo and Hugo Mejia Velasco (Research Centre of Advanced Studies of the National Polytechnic Institute of Mexico-CINVESTAV). The latter were supported by a specific collaboration agreement between the aforementioned Centre and the ULL promoted by himself and Dr. Santos Trigo. These were intended to exchange experiences in the Ph.D. as well as in the Master programs including including visits from students and teachers of the Department of Mathematics Education of CINVESTAV and the ULL.

He has coordinated the ULL's Consolidated Group "*Mathematics Education in Post-compulsory education*" since 2005. He has participated in thirteen Research Projects including five from the R+D+I National Plan, and he has been Principal Investigator of three of these. The above-mentioned projects have benefited from the participation of universities such as: the Autonomous University of Barcelona (UAB), Lleida University, the University of Salamanca, Valladolid University, Experimental and Polytechnic University (UNEXPO) Antonio Jose de Sucre (Venezuela) and CINVESTAV (Mexico), which has greatly facilitated collaboration and mobility.

He has been a member of the organizing committees of various research seminars, congresses and workshops. He has given over twenty invited lectures, some of which were in prestigious national and international Centres, and he has participated in approximately forty national and international congresses.

Administrative posts: Secretary of the Department of Mathematical Analysis, assistant director of Academic Management of the School for training elementary school teachers, deputy and acting director of the Department of Mathematical Analysis, secretary and vice-dean of the Faculty of Mathematics.

He was a founding member and a committee member for three years of SEIEM (Spanish Society for Research in Mathematics Education), treasurer of CIMAC (Mathematical Research Centre of the Canary Islands), representative of the Faculty of Mathematics in Mathematics Tournaments for secondary school students.

2.3 Activities and Goals of GeoGebra Institute

The activities to be carried out by the IGA are as follows:

- Increase awareness of the scope provided by GeoGebra, with a view to encouraging its use in the classroom.
- Create materials using GeoGebra, to facilitate the work of teachers at a range of academic levels.
- Compile materials designed by the teaching profession which could help other teachers who wish to use GeoGebra in their classes.

- Evaluate materials using GeoGebra as a teaching resource.
- Run training activities on the use and scope of GeoGebra at a range of academic levels.
- Establish contact mechanisms for all members of the teaching profession interested in GeoGebra.
- Work with the other Spanish GeoGebra Institutes, as well as those of other countries.

2.4 Certification

The training offered by IGCan will consist of:

- Introduction to GeoGebra as a teaching resource for the Mathematics classroom: online training activity, lasting 30 hours, on the characteristics of GeoGebra and its use in the classroom as a teaching resource. The aim of this activity will be to make the trainee aware of the educational potential of this software, first and foremost in Mathematics. Teachers who achieve a pass grade in this activity will be awarded certificates as GeoGebra Users.
- Materials for the classroom with GeoGebra: online activity (duration 100 hours) in which participating teachers will be asked to create new GeoGebra-based materials for use in the classroom. To achieve a pass grade, teachers will be required to test the materials in the classroom. Teachers who achieve a pass grade in this activity will be awarded certificates as GeoGebra Experts.

3 Signatures

The chair person of the applying GeoGebra Institute and a high ranking representative of its hosting institution (e.g.: departmental chair, dean of faculty at a university or teacher education college, director of an NGO) declare with their signatures that all information in this application is correct to their best knowledge and that they support the establishment of a GeoGebra Institute at their institution as described in this application.

Chair person of your GeoGebra Institute

Carlos Ueno Jacue
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Email: cuenjac@gmail.com
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Signature: _____

A handwritten signature in blue ink, appearing to read 'Ueno Jacue', is written over a horizontal line. The signature is stylized and cursive.

Date: 10/02/2014

Chief Communicator of your GeoGebra Institute

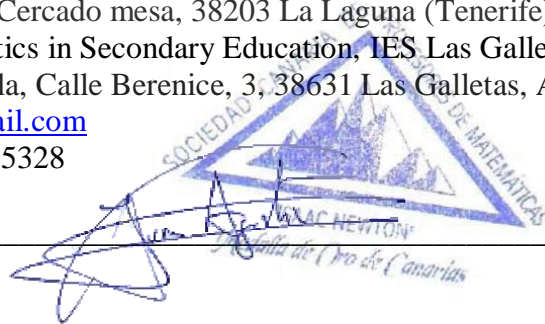
Same as **Chair Person**.

Representative of hosting institution of your GeoGebra Institute

Juan Agustín Noda Gómez
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Signature: _____

Date: 10/02/2014



Application approved by

Markus Hohenwarter (markus@geogebra.org)
President of the International GeoGebra Institute (<http://www.geogebra.org/igi/>)

Signature: _____

Date: 10 February 2014