



Life Energy Motion

FINAL WORK CERTIFICATE

We, LEM International, certify that González Jiménez Joaquín, born on 29 July 1981, has worked for our company from 7th February 2022 to 31st May 2024. González Jiménez Joaquín was hired as Senior Electronics Engineer.

In his function, his main responsibilities were as follows:

- Member of the Innovation team with key responsibility on topics of artificial intelligence (AI) and IoT
- Technology watch, attending conferences
- Developing concepts together with product management and proposing innovation projects
- Project management
- Rapid prototyping of smart sensors incorporating sensors, energy harvesting, low-power electronics, wireless communications, back-end software.
- Advice and support on IoT and AI
- Supporting the global product management team in decision-making

Joaquín González Jiménez remained focused, positive, and helpful even under the most trying of circumstances. He carried out his duties to our complete satisfaction. He maintained strong professional relationships with all his colleagues, and demonstrated a very good team spirit, always being available and motivated by all the responsibilities assigned to him.

Assiduous and focused on his work, Joaquín González Jiménez demonstrated excellent professional and social skills. He has been a precious member of the team, proactive, customer and service oriented.

Joaquín González Jiménez will leave our workforce on 31st May 2024. He will remain free of any commitment to us, except for his obligation of discretion. We would like to thank him sincerely for his work and wish him every success in his future professional and personal projects.

Meyrin, April 09th 2024

Dominik Schläfl
Group Head of Innovation

Smahane Chaaba
HR Manager Western Europe

This certificate does not contain a coded formulation.



LEM International SA
Route du Nant-d'Avril 152
1217 Meyrin

Phone +41 22 706 11 11
Fax +41 22 794 94 78

Philippe Lambinet
CEO at Cogito Instruments SA
CH 1204 Geneva

p.lambinet@cogitoinstruments.com
+41 79 9149454



Geneva, September 23th, 2021

To whom it may concern,

I am the President & CEO and co-founder of Cogito Instruments SA. I oversee all external operations and contact with customers, partners and investors, and define the strategy of the company. I have been in the high tech sector for 40 years, in the Semiconductors and Electronics Systems business. I have been Executive VP at companies such as STMicroelectronics and CEO and co-founder of several startups.

Joaquín B. González joined Cogito in a transition of the company, as application engineer, and he demonstrated very fast his impressive ability to adapt to a new environment. Coming from an institution as big as CERN, it was not obvious to adapt to a little start-up without that much resources, but he demonstrated his ability to work with the resources he found, learn fast and step forward in all the projects with great success and congratulations from the customer.

I had the luck to have him with me in several visits to important customers, like Clemessy-Eiffage, ST Microelectronics or Georg Fischer Machining solutions, where he successfully taught the customer about our technology at same time as giving us the right technical support during project negotiation. To talk about Joaquín is not only to talk about his great technical competences and ability to quickly learn any new technology or programming language, but also his skill to sketch technical solutions and accurately predict the amount of time and resources. This was a great asset during our negotiations with partners and potential customers. His openness and honesty are always appreciated by customers.

He is a loyal, reliable, professional, and conscientious hard worker who pays careful attention to details at same time than is able to design very large and complex systems and machines. In this sense, he may be one of the best engineers I have worked with, not only for his skills, but also for the way he interacts with his team, colleagues, and superiors. Always in good mood, relaxing the environment and targeting the objectives without giving space to bad feelings between all people involved on his projects.

I honestly believe that any team who can get him on board will be fully satisfied by skills and behaviour. Please, feel free to contact me for any question you may have. Best Regards,

A handwritten signature in black ink, appearing to be "PL" followed by a stylized flourish.

Philippe Lambinet

Eric Jumelet
COO at Cogito Instruments SA
CH 1204 Geneva

e.jumelet@cogitoinstruments.com
+41 79 604 80 15



Geneva, September 18th, 2021

To whom it may concern:

I am Eric Jumelet, COO and co-founder of Cogito Instruments SA. As operations chief, I oversee all internal operations and developments in the applications department. Also former Group Vice-President at STMicroelectronics where I was in charge to set-up the Business 5 Years Plan of the company (\$8Billions) and also previously responsible of Set-Top-Box P&L for a value of \$700Millions/Year with 800 people. I was asked to provide a reference for Mr. Joaquín B. González, which I am honoured to write.

Joaquín arrived at the company to replace another colleague with the same profile, also coming from CERN, who lifted the bar very high before leaving, but he quickly took the torch and demonstrated he was the right option for the position. Since the very first day, he adapted to our needs in a very efficiently, self-managed and autonomous way.

We hired him for the role of Application engineer, to support customers and provide both to train customer in our technology and to develop solutions based on that hardware. Soon, we had the need to totally change the approach in terms of hardware, and he took the lead to design the architecture and requirements of the new system. In a record time, he managed to have a whole set of specifications and hardware/software/interface architecture for a totally new platform. The output of this work was to have both internal and external efforts joint together and the development started 6 weeks before the planification. The board is nowadays in prototype state and ready for certifications, and it was called to be the flagship of the company for the next years.

Joaquin is a very smart person, adaptative, always in good mood and dedicated to his job. From my point of view, his best skills are his ability to quickly understand new challenges and adapt himself to the best way to solve them. Also, his skill to rapidly sketch technical solutions for any task and accurately make a prediction on the timing and resources needed for it, has often simplify my job as supervisor.

As Solution engineer manager, he has also managed several projects on his own, with great success in all of them in terms of time, accuracy, resources, and customer satisfaction.

Joaquin's disposition is also worth a special remark: working with him was always a pleasure. He can merge the serious methodology required to solve problems on the job with an ever positive and cheerful attitude, of which surely any team, that will have the luck of having him in, will benefit.

In conclusion, I fully support the idea that Joaquin will prove to be an excellent asset as well as a great colleague to share the workplace with.

Yours faithfully

Eric Jumelet



GENEVE, SUISSE
GENEVA, SWITZERLAND

European Organization for Nuclear Research
Organisation européenne pour la recherche nucléaire

Michael Moll, CERN, EP-Department EP-DT, CH-1211 Geneva 23

Dr. Michael Moll
CERN EP-Department (EP-DT)
CH 1211 Geneva 23
Switzerland

Phone: + 41 22 76 72495
E-mail : michael.moll@cern.ch

CERN, Geneva, October 2021

Letter of reference for **Joaquin Braulio Gonzalez Jimenez**

To whom it may concern,

I know Joaquin Gonzalez since about 6 years. I first met him in the context of a collaborative research project with Prof. Rogelio Palomo from the University of Sevilla. In the framework of this project Joaquin was detached from August 2015 to March 2016 from the University of Sevilla to the Solid State Detector (SSD) team in the Detector Technologies (EP-DT) group at CERN. From June 2016 to May 2018 he was working as an FTEC (Spanish Trainee program) fulltime at CERN on two projects: first, under my supervision on the construction and operation of high-level laboratory measurement equipment for radiation damage studies on solid-state detectors in the SSD lab and, second, under the supervision of Dr. Dave Barney on the characterization and testing of CMS HGCAL modules and the Skiroc readout chip.

In the SSD laboratory Joaquin produced LabVIEW based control and data-acquisition software for a Charge Collection Efficiency (CCE) and a Transient Current Technique (TCT) system. The CCE setup is using a radioactive source imbedded in a climatic chamber while the TCT setup is embedded in an electromagnetically shielded box utilizing picosecond lasers and Peltier elements and a chiller for cooling. Both systems require the parallel control of several different instruments (power supplies and current reading, position control of linear stages, temperature control, laser control, triggering, etc.) and partly high speed data acquisition from the oscilloscopes. Joaquin wrote new LabView software and helped to significantly optimize the overall performance of the systems.

Later he refurbished and upgraded the Deep Level Transient Spectroscopy (DLTS) systems and integrated a high voltage option into a measuring system for Avalanche Photo Detectors (APDs). In parallel he constructed a test bench test for SiPM characterization. For this project he designed a PCB that allows to read several SiPM sensors in a climate chamber in parallel without requiring the climate chamber to be opened for sample change. Finally, Joaquin was in charge of all computing infrastructure and delivers general support to the SSD team and clients. He participated as a student supervisor in the ESIPAP 2017&2018 and 2017 CERN summer schools hands-on activities.

Joaquin has demonstrated to be able to work on several projects in parallel with a proper time sharing handled very efficiently entirely by himself. His electronics background, his expertise in LabView and his commitment to the project has allowed him to quickly become the expert and responsible for all bench-test software infrastructure in the SSD lab. He was the entry point to all computing and electronics related questions in our little team. This was not only based on his profound expertise, but also linked to his very helpful and service oriented character. Joaquin was always ready to give a hand and investigates any kind of problem arising in the

lab. He was highly motivated and ready to invest himself even beyond working hours when solutions to technical problems had to be found.

Joaquin has a profound knowledge of electronics and computing soft- and hardware as well as a very solid background in solid state physics and laser physics. He is a good communicator and team player and a reliable independent worker. He is always ready to help and committed to any project given to him. I can recommend him for any hardware oriented position, best with computing and/or DAQ/controls tasks. Any project will for sure profit from his experience and skills in engineering.

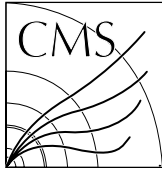
Best regards,

A handwritten signature in blue ink, appearing to read "G. Saul".

Dr. Michael Moll

Co-spokesperson of the RD50 collaboration

& Deputy Group Leader of EP-DT (Detector Technologies)



EUROPEAN ORGANIZATION FOR NUCLEAR RESEARCH
COMPACT MUON SOLENOID COLLABORATION

URL : <http://cms.cern.ch>



Dr. David Barney
CERN – EP Department
CH - 1211 GENEVA 23
SWITZERLAND

Tel. +41 75 411 4644
Fax +41 22 767 8930
E-mail David.Barney@cern.ch

Geneva, 30th September 2021

Votre référence / Your reference : **Joaquin Braulio Gonzalez Jimenez – SY-EPC-OMS-2021-101-LD**
Notre référence / Our reference : **CMS-Gonzalez-SYEPCLD-30092021/DB**

Subject : Letter of Reference for Joaquin Gonzalez for CERN Staff position

Dear Madam/sir,

I am delighted to support the application of Mr. Joaquin Gonzalez to CERN for a position as a staff member within the SY-EPC group, to work as a test and maintenance technical engineer, specializing in electronics systems. I worked with Joaquin from about 2016 to 2018, during his time as an FTEC Trainee at CERN, in the context of the CMS High Granularity Calorimeter – one of the major upgrades to CMS for HL-LHC. I was, until last year, one of the System Test Coordinators for HGCAL, as well as Group Leader for the CERN group in which Joaquin was assigned (EP-CMX).

Joaquin is a man of many talents, several of which we made good use of during his time at CERN, but I believe there are many more still waiting to be “tapped”. For example, he wrote LabVIEW code to test features of a prototype front-end ASIC developed by the French “Omega Group” (based at Ecole Polytechnique, near Paris). This was by no means trivial as he had to understand the complex ASIC as well as the supplied test board before starting. He then had to adapt existing code and write new code in order to explore things such as crosstalk and linearity that had not even been tested by the ASIC designers. He did this efficiently and professionally, working together with colleagues from India and France. The tests proved to be useful and helped understand how to improve the ASIC for its next iteration.

The main task that I asked Joaquin to do was to design and develop the data storage system for large-scale beam-tests at CERN, comprising up to 14000 detector channels – again, a non-trivial exercise. Joaquin explored several possibilities to have a reliable and efficient data-taking and storage system. These explorations included collaboration with the central CMS DAQ team, as well as colleagues from CERN’s IT department and commercial suppliers. He converged upon the use of a “standard” CMS DAQ PC but with additional redundant storage capacity, high-speed network switches, a RAID array and a dedicated fibre link from the H2 beam area (Preveessin) for direct storage on EOS. The system worked flawlessly for the systems tested in 2017 (fewer channels than originally planned) and then again in 2018 at DESY (in Germany) and CERN tests in beams, as well as in a series of system tests in the laboratory. This development showed a level of collaboration with CERN groups that was rather exceptional, demonstrating his maturity and enthusiasm to do an excellent job.

Joaquin was always looking to help in any way possible. He liked to keep very busy and learn new things. In 2018 he worked with Turkish and Greek colleagues to develop a PLC/WinCC-based system for monitoring and safety of the laboratory and beam-test HGCAL systems. Despite never having worked on such a thing, he learned quickly and, once again, showed his ability to talk to relevant people in order to progress quickly. The system was completed and used successfully on multiple occasions.

I have been a LabVIEW developer/programmer for around 20 years (not full time). I have seen the code of many other developers at CERN and rate Joaquin amongst the best. His code is neat, understandable and reliable. He takes great care in aspects such as error handling – critical in test systems – and data logging. He is at a very advanced level and has a deep understanding of both the concepts and implementation of LabVIEW. He has the same professional attitude with all aspects of his work – he always wants to do his best, and match that with what is best for the team.

During my time working with him I witnessed firsthand his ability to understand complex electronic systems quickly and efficiently, and use a variety of instruments to either improve them or debug them. I have maintained contact with Joaquin in the past few years and although I cannot comment on his technical work during that period, I did always witness his enthusiasm for his work and also his continued interest in CERN. Indeed I know that it is his dream to return to CERN if possible.

I am sure that CERN will benefit enormously from Joaquin's drive and wide-ranging expertise, especially (but not limited to) areas that require the development and execution of test systems, including writing LabVIEW code. If you require any further information please do not hesitate to contact me.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'David Barney', with a stylized, flowing script.

Dr. David Barney
CERN Senior Physicist & EP-CMX Group Leader
CMS HGCAL System Test Coordinator 2015-2020



Dr. Francisco Rogelio Palomo Pinto
Escuela Superior de Ingenieros
Departamento de Ingeniería Electrónica
Camino de los Descubrimientos s/n
41092 Sevilla, Spain
Phone +34 95 4481314
email: fpalomo@us.es

To whom it may concern

I am Rogelio Palomo, PhD, and I hold a permanent position as professor at University of Sevilla, Spain, since 1999. Relative to CERN, I work in four collaborations, CMS (as deputy team leader of the associated institute GIE-ETSI-USE), RD53 (As deputy team leader) and RD50 (as team leader). My work for CERN is related to development of radiation hardened solid state pixel detectors and its radiation hardened readout electronics. Relative to my research in my University, I work essentially in sensors and electronic instrumentation for photons in the optical range (Visible, near IR) and ionizing radiation.

From 2008 to 2015, the engineer Joaquin B. González Jiménez has been working under my supervision on several R&D projects on AICIA technology transfer agency, under contract as electronic engineer. Joaquin is an extremely talented engineer, with special ability for working in the laboratory. He also masters software development and computer systems administration, very useful capabilities in any modern electronic instrumentation laboratory.

Joaquin gave support to my experiments at nTOF, about neutron resistance of photonic sensors (Fiber Bragg type) and three dimensional silicon detectors. Relative to CMS, he gives me support in software engineering relative to Sentaurus TCAD, the finite element tool suite for simulation of radiation effects in silicon sensors we use.

Apart from his brilliant technical skills, Joaquín is a very talented and creative person to chat with. He is always ready to discuss about everything, positively and contribute with new and different solutions to any problem. His way of side thinking has demonstrated to be excellent to find out new creative solutions for almost every problem we found on daily issues. Both working on his own, and as well as part of a team, he always behaves efficiently, and adapt himself to whatever circumstance he may find, in order to solve the problem in the most cost-efficient solution.

I fully support the application for the LabVIEW Application Engineer position in Cogito instruments, and I am totally sure Joaquin would make greater whatever team he becomes part of, and will create a big impact on the company which gets to hire him.

Please, do not hesitate to contact me in case you need any further information

Best regards

Fco. Rogelio Palomo Pinto, PhD.

September 21st 2018

Departamento de Física Atómica, Molecular y Nuclear
Universidad de Sevilla

Prof. Dr. José Manuel Quesada
Molina
Facultad de Física
Apartado 1065
E-41080 SEVILLA
SPAIN



Tel.: +34954559508
Fax: +34954554445
E-Mail: quesada@us.es

10 de abril de 2015

To whom it may concern

This recommendation letter is in support of Mr. Joaquín González in his application for a fellowship at CERN. I write it as Team Leader of the University of Sevilla's group participating in the n_TOF experiment at CERN (<http://grupo.us.es/ntof/>) and member of n_ToF Collaboration. I am Full Professor of the University of Sevilla, at the Department of Atomic, Molecular and Nuclear Physics. In addition, I am Head of the Working Group on Radiation Transport and Effects, GETERUS, (<http://grupo.us.es/geterus>), where an overview of our activities is available).

I have known Mr. González for five years, since I began to collaborate with Dr. Francisco Rogelio Palomo in the studies of the radiation hardness testing of a new state-of-art fotonic sensor under neutron irradiation in the dump area of the n_TOF experiment at CERN. During this period, according to my own appraisal as well as the information received from my colleagues, he has perfectly integrated in the group, taken advantage to apply his technical skills and shown a very positive attitude towards the research work. I consider that a longer term stay at CERN in the framework of the CERN Fellowships Programme would be extremely beneficial for him as well as for the host group.

If you have any doubt, do not hesitate to contact me.

Sincerely yours,

Prof. Dr. José Manuel Quesada Molina



DEPARTAMENTO
DE INGENIERÍA AEROSPAECIAL
Y MECÁNICA DE FLUIDOS

Dr. Antonio Fernandez García-Navas
Escuela Superior de Ingenieros
Departamento de Ingeniería Aeroespacial
y Mecánica de Fluidos
Camino de los descubrimientos S/n
41092, Sevilla, Spain.

Phone: 954487227
Email: fergarna@us.es
April 8th, 2015

To whom it may concern:

I am Dr. Antonio Fernandez and I hold permanent position as professor at University of Seville, Spain, since 1981. In addition, I am head of Department of Aerospace Engineer and Fluids Mechanics since 2006.

It is a pleasure for me to write a recommendation letter in support of Mr. Joaquín B. González, concerning his application for a research grant at CERN.

I have known Mr. González for five years, since he arrived our department and took the lead of our IT Division in the research group of Fluid Mechanics (<http://grupo.us.es/gimfus>). During this time he had worked efficiently in all type of duties related with supercomputations, simulation and CAD. He is always ready to address new subjects with creativity and interest.

I support the idea of Mr. González is an excellent option to support any kind of research activities at your institution.

Sincerely yours,

Antonio Fernandez García-Navas



Dr José Manuel Gordillo Arias de Saavedra

Escuela Superior de Ingenieros
Área de Mecánica de Fluidos
Camino de los Descubrimientos S/N
41092, Sevilla, Spain

Phone +34-954481185
Email : jgordill@us.es

April 7th 2015

To whom it may concern:

I am Dr. José Manuel Gordillo and I hold a permanent position as a Fluid Mechanics and Aerodynamics Associate Professor at University of Sevilla, Spain, since 2005. My research interests include General Hydrodynamics (Wave Propagation, Stability and Laminar Flows), Two-Phase Flows (Jet, drop and bubble dynamics at high and low Reynolds numbers), Microfluidics (generation of microbubbles and microemulsions) and the physics of Splashes (impact of liquid masses against solids or other liquids). Since the end of my doctorate studies in December 2001, I have coauthored 36 research papers that have been published in the best reviewed scientific journals in the field of Physics (Physical Review Letters, four of them featured in Physics) and Fluid Mechanics (Annual Review Fluid Mechanics, Journal of Fluid Mechanics, Physics of Fluids), with an H index of 18, over 900 citations in the ISI and also have several patents concerning bubble generation. I have received teaching prizes and I have advised three PhD theses. I will become associate editor of the leading journal in the field of Fluid Mechanics (JFM) from May 1st 2015 and I am also member of the Euromech council; my resume is available upon request.

It is a pleasure for me to write a recommendation letter in support of Mr. Joaquín Braulio González Jiménez concerning his application for a research grant at CERN.

I have known Mr. González for five years, a period of time in which he has been in charge of the IT division in my research group (<http://grupo.us.es/gimfus>). During these years, I could realize that Mr. González has always provided us with truly creative and clever solutions to all kinds of technical issues we may have had along these years. He is responsible, has always provided with fast solutions and he has thus positively contributed to our scientific production. Based on my interaction with him, I can conclude that Mr. González possesses the capability and the interest of coping with complex problems and of finding their solutions. Last but not least, he is an extremely nice person to work and talk with: he will, for sure, rapidly adapt to his new environment.

I strongly support the statement that Mr. González is an excellent candidate to get financial support to do research activities at your institution.

Please, do not hesitate to contact me in the case you need any further information.



**DEPARTAMENTO DE INGENIERÍA AEROESPACIAL Y MECÁNICA DE FLUIDOS
ESCUELA TÉCNICA SUPERIOR DE INGENIEROS
UNIVERSIDAD DE SEVILLA**



Sincerely yours,

José Manuel Gordillo Arias de Saavedra