



Europass Curriculum Vitae

Personal information

First name(s) / Surname(s) **Francesco Paggi**
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Nationality Italian
Date of birth 07/11/1976
Gender Male

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Desired employment / Occupational field

Aerospace Engineer

Work experience

Dates 15/09/2008 - 31/01/2009
Occupation or position held Researcher (Internship within M. SC. in Advanced Systems of Satellite Communications and Navigation) (in progress)
Main activities and responsibilities Development of a SDR (Software Defined Radio) receiver for the Galileo satellite navigation system
Name and address of employer Aalborg University - Danish GPS Center
Fredrik Bajers Vej 7C, DK-9220 Aalborg (Denmark)
Type of business or sector Satellite Navigation Research

Education and training

Dates 21/01/2008 - 06/02/2009
Title of qualification awarded M. Sc. : "Advanced Systems of Satellite Communications and Navigation" (in progress)
Principal subjects / occupational skills covered Management of Space Systems
Satellite communications and navigation
Space systems' electronic
Name and type of organisation providing education and training Università degli Studi di Roma "Tor Vergata" (University)
Engineering Department - Università degli Studi di Roma "Tor Vergata" (Università) Facoltà di Ingegneria - Via del Politecnico, 1, 00133 Rome (Italy)
Level in national or international classification
Dates 1995 - 2007
Title of qualification awarded Aerospace Engineering 5-years Degree
Principal subjects / occupational skills covered Space Flight mechanics
astrodynamics
control of satellites formations
space propulsion
base-level electronics
maths

Name and type of organisation providing education and training | Università degli studi di Roma "La Sapienza" (University)
Engineering Department - Via Eudossiana 18, 00184 Rome (Italy)

Dates | 1990 - 1995

Title of qualification awarded | Secondary Scientific School Diploma

Principal subjects / occupational skills covered

Name and type of organisation providing education and training | "G. Piazzini" (Scientific Secondary School)
Via Campagnanese, 3, 00067 Morlupo (Roma) (Italy)

Personal skills and competences

Mother tongue(s) | **Italian**

Other language(s)

Self-assessment
European level (*)

English

Understanding				Speaking				Writing	
Listening		Reading		Spoken interaction		Spoken production			
B2	Independent user	C1	Proficient user	C1	Proficient user	B2	Independent user	B2	Independent user

(*) [Common European Framework of Reference \(CEF\) level](#)

Social skills and competences | Team spirit, obtained both in academic and work, and also sport (Judo 1st dan black belt) experience.
Good communication abilities, shown in voluntary (first aid) and civil service (social assistance) activities.
Good adaptance ability to different cultures and environments.

Organisational skills and competences | Experience in team management, obtained with sport teaching (3 years of Judo teaching).

Technical skills and competences | Good maths and physics knowledge

Computer skills and competences | Good Microsoft Office knowledge;
good Latex knowledge;
good Fortran knowledge;
good Matlab (and Simulink environment) knowledge.

Other skills and competences | Free-climbing and trekking as hobbies;
snorkeling as hobby;
some experiences of sailing and skying.

Driving licence(s) | B

Additional information

Graduation dissertation title: "Control of satellites formations" (Università degli studi di Roma "La Sapienza"; supervisor Prof. De Matteis, Università degli Studi di Roma "La Sapienza", Facoltà di Ingegneria, Dipartimento di Meccanica e Aeronautica; co-supervisor Giulio Avanzini, Politecnico di Torino, DIASP); 2 different approaches for control of satellites formation-flight are taken in account: VIRTUAL STRUCTURE, in which single satellites individually track the desired state which is defined through a virtual frame, and STRUCTURAL ANALOGY, in which the formation is globally "seen" as an equivalent rigid body; after a theoretical dissertation (which partially widen the pre-existing literature), with simulations (developed by myself) in Matlab-Simulink environment, the different approaches "Virtual Structure" and "Structural Analogy" for formation flying of satellites are compared in terms fuel use, communication and computational burden, and accuracy; in particular, formations controlled with the STRUCTURAL ANALOGY have shown inertial properties that are peculiar of rigid bodies, which have been exploited for their stabilization, either by spin or in orbit. Evaluation: 110/110.

Within M. SC in Advanced Systems of Satellite Communications and Navigation, Project Work: "Study of a Software-Defined Galileo Receiver" (supervisor: Prof. Kai Borre, Danish Gps Center, Aalborg University); development of a post-processing software receiver for Galileo system (Giove A and B satellites) in Matlab environment, able to use all the characteristics of the Galileo system's Open Service.

Annexes

1) Reference letter from Prof. Kai Borre (DGC, Aalborg University)

		A1	A2	B1	B2	C1	C2
U N D E R S T A N D I N G	Listening	I can understand familiar words and very basic phrases concerning myself, my family and immediate concrete surroundings when people speak slowly and clearly.	I can understand phrases and the highest frequency vocabulary related to areas of most immediate personal relevance (e.g. very basic personal and family information, shopping, local area, employment). I can catch the main point in short, clear, simple messages and announcements.	I can understand the main points of clear standard speech on familiar matters regularly encountered in work, school, leisure, etc. I can understand the main point of many radio or TV programmes on current affairs or topics of personal or professional interest when the delivery is relatively slow and clear.	I can understand extended speech and lectures and follow even complex lines of argument provided the topic is reasonably familiar. I can understand most TV news and current affairs programmes. I can understand the majority of films in standard dialect.	I can understand extended speech even when it is not clearly structured and when relationships are only implied and not signalled explicitly. I can understand television programmes and films without too much effort.	I have no difficulty in understanding any kind of spoken language, whether live or broadcast, even when delivered at fast native speed, provided. I have some time to get familiar with the accent.
	Reading	I can understand familiar names, words and very simple sentences, for example on notices and posters or in catalogues.	I can read very short, simple texts. I can find specific, predictable information in simple everyday material such as advertisements, prospectuses, menus and timetables and I can understand short simple personal letters.	I can understand texts that consist mainly of high frequency everyday or job-related language. I can understand the description of events, feelings and wishes in personal letters.	I can read articles and reports concerned with contemporary problems in which the writers adopt particular attitudes or viewpoints. I can understand contemporary literary prose.	I can understand long and complex factual and literary texts, appreciating distinctions of style. I can understand specialised articles and longer technical instructions, even when they do not relate to my field.	I can read with ease virtually all forms of the written language, including abstract, structurally or linguistically complex texts such as manuals, specialised articles and literary works.
S P E A K I N G	Spoken interaction	I can interact in a simple way provided the other person is prepared to repeat or rephrase things at a slower rate of speech and help me formulate what I'm trying to say. I can ask and answer simple questions in areas of immediate need or on very familiar topics.	I can communicate in simple and routine tasks requiring a simple and direct exchange of information on familiar topics and activities. I can handle very short social exchanges, even though I can't usually understand enough to keep the conversation going myself.	I can deal with most situations likely to arise whilst travelling in an area where the language is spoken. I can enter unprepared into conversation on topics that are familiar, of personal interest or pertinent to everyday life (e.g. family, hobbies, work, travel and current events).	I can interact with a degree of fluency and spontaneity that makes regular interaction with native speakers quite possible. I can take an active part in discussion in familiar contexts, accounting for and sustaining my views.	I can express myself fluently and spontaneously without much obvious searching for expressions. I can use language flexibly and effectively for social and professional purposes. I can formulate ideas and opinions with precision and relate my contribution skilfully to those of other speakers.	I can take part effortlessly in any conversation or discussion and have a good familiarity with idiomatic expressions and colloquialisms. I can express myself fluently and convey finer shades of meaning precisely. If I do have a problem I can backtrack and restructure around the difficulty so smoothly that other people are hardly aware of it.
	Spoken production	I can use simple phrases and sentences to describe where I live and people I know.	I can use a series of phrases and sentences to describe in simple terms my family and other people, living conditions, my educational background and my present or most recent job.	I can connect phrases in a simple way in order to describe experiences and events, my dreams, hopes and ambitions. I can briefly give reasons and explanations for opinions and plans. I can narrate a story or relate the plot of a book or film and describe my reactions.	I can present clear, detailed descriptions on a wide range of subjects related to my field of interest. I can explain a viewpoint on a topical issue giving the advantages and disadvantages of various options.	I can present clear, detailed descriptions of complex subjects integrating sub-themes, developing particular points and rounding off with an appropriate conclusion.	I can present a clear, smoothly-flowing description or argument in a style appropriate to the context and with an effective logical structure which helps the recipient to notice and remember significant points.
W R I T I N G	Writing	I can write a short, simple postcard, for example sending holiday greetings. I can fill in forms with personal details, for example entering my name, nationality and address on a hotel registration form.	I can write short, simple notes and messages. I can write a very simple personal letter, for example thanking someone for something.	I can write simple connected text on topics which are familiar or of personal interest. I can write personal letters describing experiences and impressions.	I can write clear, detailed text on a wide range of subjects related to my interests. I can write an essay or report, passing on information or giving reasons in support of or against a particular point of view. I can write letters highlighting the personal significance of events and experiences.	I can express myself in clear, well-structured text, expressing points of view at some length. I can write about complex subjects in a letter, an essay or a report, underlining what I consider to be the salient issues. I can select a style appropriate to the reader in mind.	I can write clear, smoothly-flowing text in an appropriate style. I can write complex letters, reports or articles which present a case with an effective logical structure which helps the recipient to notice and remember significant points. I can write summaries and reviews of professional or literary works.



Aalborg, January 21, 2009

To whom it may concern

My first meeting with Francesco Paggi happened when he was a listener to my lectures on GPS software defined receiver at University of Rome, Tor Vergata in April 2008. I observed him as a capable student asking relevant and clever questions, and I left with the best impression of an interested and motivated person.

During summer 2008 it was arranged that Francesco spends an internship at Danish GPS Center, Aalborg University from October 1, 2008 till end of January 2009.

It turned out to be a stimulating period for Francesco. His job was to change and augment an existing Matlab code for GPS C/A code into a Matlab code for GIOVE A and B. These latter satellites use a much more sophisticated signal structure than the legacy GPS signals.

During the stay I have learned Francesco to know as a social and pleasant person. I find his analytical skills pronounced and also acknowledge his ability to synthesize things into a clear and fast Matlab code. Francesco is trying to understand the core principles and the theory behind things. In addition, his way of writing and documenting his work is excellent.

All in all, Francesco Paggi definitely shows a performance better than the average of all other students. I only can give him my very best recommendations and wish him a great success in future jobs.

Sincerely yours

Kai Borre
professor in Geodesy
at Aalborg University