

MR. ALAN GLEESON

FLUID SYSTEM CONSULTANT  
ITP, MADRID, SPAIN

[www.itp.es](http://www.itp.es)



### Education and Training

→ B. Eng. (Hons) Aeronautical Eng, University of Limerick, Ireland, 1997

### Current Position

Title	Dates	Employer
Fluid System Consultant	2006 - Present	ITP, Madrid, Spain

### Previous Positions

Title	Dates	Employer
Air, oil and fuel systems specialist	1997-2000, 2001-2002, 2003-2005	Rolls Royce Deutschland, Berlin, Germany
Air, oil and fuel systems specialist	2000-2001	Rolls-Royce Energy, Coventry, England
Air, oil and fuel systems specialist	2002-2003	MTU Aero, Munich, Germany

### "Home" Town(s)/County(s)

Tramore, Waterford

### Please describe your current job

I work in Madrid as an independent consultant and my principal client is a company called ITP. They specialise in design and development of aircraft engines. I am a consultant member of the fluid systems team which is responsible for all the secondary engine fluid systems. A good example of a secondary system is the oil system which is like the blood of the engine and must pump cool and clean oil to all the important engine components removing heat and dirt while ensuring lubrication and smooth operation.

Specifically my job consists of building models of fluid systems using building blocks for each component, e.g. pumps and radiators for oil and fuel systems. I

then take the model and use it to simulate various conditions and validate it against a test engine. Once validated I can certify the system giving the aircraft manufacturer permission to fly the engine. A typical engine development program can take up to 5 years and involves many hours of analysis and testing. I generally have to travel once a month to observe tests and many of the test facilities are spread all over Europe.

An interesting part of my job is understanding why parts fail and isolating the fault. The prediction and fault isolation tools we use are similar to those which are used in C.S.I. meaning it gets very detailed.

I also work on several pan-European projects which involves meeting many people and having to understand all the cultural variations that this implies. It also provides me with the opportunity to learn and practice the languages which I have learned throughout my career to date. There is also a marketing element to my position which is less technical and requires more social and networking skills.

**Please describe your career path since graduating with your B.Eng. Aeronautical Eng.**

I started in BMW Rolls-Royce, Berlin in June 1997 and began my career in fluid systems. The position was offered to me on the back of my experience at Airbus during my COOP. However, I found I enjoyed all aspects so I continued in this field. Although it sounds specific, the area is broad and so I am never bored.

After 3 years the company was taken over by Rolls Royce and I decided to change career. I moved into the energy business and began working on industrial gas turbines as a standardisation engineer. This is basically an engineer who ensures that the engine makes the change from the development stage to the production stage smoothly by spotting and solving any teething problems. My work was mainly in dry low emission fuel systems but I was also involved in emissions and cooling systems.

Within a year the company relocated the whole division to Canada. However, I choose to return to Berlin and work on the preliminary design of a new power plant. I used this opportunity to apply all the lessons I learned in my previous position to produce a more efficient reliable power plant.

After 18 months in preliminary design I decided to move into research and

development and moved to Munich working on the CLEAN demonstrator with MTU. This was a very interesting step as I worked on recuperating gas turbine design and integration. The technology was eventually rig tested and incorporated into stationary gas turbine designs.

About 18 months later the design work began to wind down and I decided to move back to Berlin to work on the TP400 turboprop program which was ramping up. It was a pan-European project involving many partners and bringing together different cultures and ideas. I was part of a team responsible for the oil/fuel and heat management systems and some aspects of the secondary air system. The size of the engine and the state of the art technologies employed provided many challenges and many innovative solutions. It was a very productive 2 years and the extra exposure within the aerospace industry allowed me to choose my next career move leading to a consultancy position at ITP Madrid.

In my current position I am responsible for fluid systems across multiple gas turbine platforms. I also provide training throughout the company. Another aspect of my current role is to market and source opportunities to export ITP's know-how and suite of gas turbine design tools to other industries.

**What made you decide to study Aeronautical Engineering at UL?**

I was always interested in technology and I choose Aero Eng as it looked exotic and like it could provide me with an interesting career with opportunities to travel.

**Are you glad you did?**

Yes, it opened my mind to a wide variety of opportunities for learning about new technologies and cultures.

**What did you most enjoy about studying at UL - academically, and also non-academically?**

I thoroughly enjoyed my time in UL and particularly the social life on and off campus.

**Where did you do your COOP?**

I spent my COOP at Airbus, Toulouse. I worked in the customer support directorate and was assigned to assist the engineers in resolving in-service issues on the pneumatic, anti-ice and air-conditioning systems across all the Airbus platforms. This was a great experience and the contacts made there led to my first job on completion of my degree at UL.

**What advice would you give school-goers considering choosing Aeronautical Engineering?**

Aero engineering may seem like a narrow discipline but it is a platform to work in all industries from F1 to ship design.

**What advice would you give future graduates of Aeronautical Engineering?**

Be confident and don't be afraid of going abroad and learning new languages. Network, be social and above all be reliable.