

# Ali Adams

**Electrical and Software Engineer (1989-2003)**  
**IT Faculty, Physics and Math Teacher (2003-2018)**

Citizenship British Iraqi  
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## Career

- Sep 17 – Jan 18: **A-level Physics/Math Teacher**  
**Guiyang #1 High School, Guizhou, China.**  
CIE Physics A-level  
CIE Mathematics A-level (P1,, M1)
- Sep 15 – Sep 17: **A-level Physics/Math Teacher**  
**Yancheng Foreign Language School, Jiangsu, China.**  
CIE Physics A-level  
CIE Mathematics A-level (P1, P3, M1, S1)  
CIE Mathematics Grade 2 to 9
- Mar 08 – Sep 15: **Numerical Researcher**  
**UAE, Iraq, USA, UK and China**  
Developing open-source software for numerical and similarity research into the ever-revealing Quran. [qurancode.com](http://qurancode.com)
- Aug 09 – Jun 10: **IGCSE Physics Teacher**  
**China-UK College, Shenzhen, China.**  
**IGCSE Physics Complete** textbook by Stephen Pople, Oxford Press.
- Aug 06 – Oct 08: **Software Instructor**  
**Emirates Advanced Investments, Al Ain, UAE.**  
Leading a team of 3 developers to build a smart client framework to dynamically generate WPF client-side container with caching management for a medical information system that connects to a C++ server using an XML/RPC middleware.
- Aug 03 – Aug 06: **IT Faculty**  
**Higher Colleges of Technology, Abu Dhabi, UAE.**  
Teaching software development at a BSc and a HD levels with full course design and delivery, examinations, and project supervision.
- Jan 03 – Aug 03: **Software Developer**  
**Scott Tod Developments, Crickhowell, Wales, UK.**  
Vending Machine Monitoring System using Delphi 5 and InterBase 6.
- Oct 01 – Feb 02: **UI Design Consultant**  
**AWEK Integrated Systems, Gdańsk, Poland.**  
Automatic UI generation for using Delphi 5 and Oracle 7.4/8.
- Jan 01 – Oct 01: **Object Database Consultant**  
**Versant Corporation, Basingstoke, UK.**  
ODBMS Proof-of-concept consultancy (and fine tuning, Java, C++).
- Mar 00 - Jan 01: **Senior Software Engineer**  
**Racal Recorders Ltd, Southampton, UK.**  
C++/COM Telephony API for an Open Switch Interface.
- Oct 96 - Mar 00: **Lecturer / Demonstrator** [Part-time]  
**Bournemouth University, UK.**  
**MSc SE:** Software Development (OOP, C++) lectures and labs.  
**BSc HCI:** Advanced Programming (C++) lectures and labs.  
**BSc Project Supervision:** [Automatic UI Generation](#).
- Oct 95 - Oct 96: **Research Assistant**  
**Bournemouth University, UK.**  
Practical evaluation of object database management systems using ObjectStore in both fine-grain and coarse granularity modes.

## Education

- Nov 96 – Mar 00: **Ph.D. Intelligent Data** [changed to part-time then abandoned]  
**Bournemouth University, UK. [British Telecom Sponsorship]**  
Fuzzy logic-based intelligent data migration to improve network responsiveness and minimize traffic. A [simulation](#) test-bed was developed in C++Builder using my own world-wide-used [FuzzyLib](#) library to evaluate a new self-organizing data management model.
- Sep 93 - Sep 94: **M.Sc. Software Engineering**  
**Bournemouth University, UK. [Dorset TEC Sponsorship]**  
Practical investigation into object database technology using POET. [Loveline for Windows](#) was developed in Borland C++ & OWL.  
Subjects:  
Software Development, Methodologies and System Architecture.
- Sep 90 - Apr 91: **M.Sc. Electromagnetic Engineering**  
**Cardiff University, UK. [Higher Education Ministry Scholarship]**  
Subjects:  
Electromagnetic Fields and Magnetic Materials.
- Sep 83 - Jun 88: **B.Sc. Electrical Engineering** **1<sup>st</sup> rank**  
**University of Technology, Baghdad, Iraq.**  
High Voltage lightning measurements and storage using Z80-based microprocessor to aid the design of a power line protection system.  
Subjects:  
Applied Mathematics, System Control, Electromagnetism, Electronics, Power System Analysis, High Voltage and Physics.

## Competitions

Top 3 in the 1999 European Space Agency's SUCCESS competition in fundamental physics for my proposal of a "*Time-measurement Dilation*" experiment to be carried out onboard the International Space Station (ISS).

## Interests

### Reality = Energy + Information

In 2001, I helped extend a new theory of light called *Helical Particle Waves* where light travels along helical paths and gave truer meanings to the concepts of *mass*, *electric field*, *magnetic moment*, and *light propagation*. In March 2014, a team from Japan, Ukraine and Korea proved the theory in practice. See <http://heliwave.com/LightSpin.pdf>

## References

- Richard Wu** [Previous Manager]  
Vice Principal  
Yancheng Foreign Language School, Jiangsu, China.  
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Phone +86 181-5139-3910
- John Zhang** [Previous Manager]  
Head of International Department  
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**esa**



*Directorate of Manned Spaceflight and Microgravity*

# SUCCESS

(Space Station Utilisation Contest Calling for European Students Initiatives)

## TEAM-DAY

12th May 1999, ESTEC, Noordwijk, The Netherlands

**Ali Adams**

was invited to attend the **SUCCESS** Team Day in recognition of his valuable proposal for an experiment on the International Space Station

*U. Knott*

**Dr. Karl Knott**

*Head of the Microgravity and Space Station Utilisation Department*

*Ulf Merbold*

**Dr. Ulf Merbold**

*ESA Astronaut*