* Highly result oriented and self-motivated professional with 20+ years of experience in managing and delivering wide range of projects / products in Electronics & Semiconductor Industry
* Flexible in adapting to new challenges, proven by self-learning and building teams in latest technology
* Extensive experience of leading multicultural teams and managing customers across the world

## Employment History

* **dts, part of Xperi**, Galway, Ireland (Principal Tech. Proj. Manager) – Jul 2019 to Present
* **Audio Analytic**, Cambridge, UK (Engineering Manager, Software) – Aug 2017 to Apr 2019
* **ARM**, Cambridge, UK (Principal Project Manager) – Sep 2014 to Aug 2017
* **Broadcom**, Cambridge, UK (Principal Engineer) – Jun 2011 to Aug 2014
* **NextG-Com**, UK (Principal Engineer) – Aug 2010 to Jun 2011
* **Infineon** **←** **LSI** **←** **Agere** **Systems** (Project Manager, System Software) – Sep 2003 to Aug 2010
* **L&T** and **L&T Infotech Ltd.**, India (Project Lead / Technical Lead) – Oct 1996 to Sep 2003

## Career Highlights / Achievements

* Managed remotely located software engineering team at *Xperi* – Improved quality of technical deliveries
* Managed software engineering team at *Audio Analytic* – Made IoT devices smarter by integrating our artificial intelligent (AI) sound recognition software
* Managed Android and Chromium projects at *ARM* – Improved Android and Chrome experience on ARM
* Built a great relationship with *Infineon’s customer, Apple @Cupertino*, while managing baseband system software for their iPhone4
* Managed globally located device driver and system software team for 2G / 3G phones – *for Agere’s customers (Samsung, NEC and more)*
* Designed system architecture for LTE / 4G stack on SDR (Software Defined Radio) – *for Intel Mobile Comm.*
* VP8 codec bring-up on VC5, *Broadcom’s* next generation VideoCore chip
* Led OpenGL 3D Graphics team for Mobile phone Project – *for Sony-Ericsson, Germany*
* Built-up and led a team of 15 engineers to successfully deliver MPEG-4 and multimedia projects – *for* *L&T’s customers Sanyo @Japan and TI @India*
* Real-time embedded product development from concept to production for industrial and consumer devices

## Expertise and Skills

* Strong leadership qualities demonstrated by leading 30+ engineers in new technologies
* Extensive experience of hiring, motivating, mentoring and building strong and self-organizing teams
* Outstanding collaboration and communication skills to manage the teams locally and remotely
* Excellent project planning and organizational skills to deliver projects on time and budget
* Business and customer focused and highly experienced in customer relationship management
* Extensive experience of working with senior stakeholders to define and drive business roadmaps
* Defining strategies and processes for software development as per market requirements
* Quality conscious and compassionate about process improvements for better quality / productivity
* Wide range of experience and great technical understanding of latest technology with great interest
* Software design and development experience for mobile phones and electronics / embedded products

## Technology / Software / Hardware

* 2G/3G/4G, MPEG-2, MPEG-4, VP8, H.264, H.265, dts, OpenGL, ML, AI, AWS, IoT
* C, C++, Assembly for ARM, DSPs and Micro-processors/controllers
* Infineon/Agere Protocol Stack, ThreadX, Nucleus, Linux, Android, iOS
* ARM+DSPs SoC, Broadcom’s VC 4/5, TI OMAP and DSPs, 8051, 68HC11

## Patents

US Patent #20090300402 – Embedded Software Testing using a Single Output

## Education

Bachelor of Engineering Degree in Instrumentation & Control - First Class with Distinction

Diploma Engineering in Instrumentation & Control - First Class with Distinction (2nd at the State level)

## Interests and volunteer work

Sports: Badminton, Cricket, Table Tennis, Chess and more

Community work: [Cambourne Parish Councillor](http://www.cambourneparishcouncil.gov.uk/councillors), [Trustee of Cambourne Youth Partnership](http://apps.charitycommission.gov.uk/Showcharity/RegisterOfCharities/ContactAndTrustees.aspx?RegisteredCharityNumber=1124931&SubsidiaryNumber=0&TID=11584966)

# Appendix - Employment Details

## dts - Xperi, Ireland [Principal Technical Project Manager] Jul 2019 to Present

dts is an audio company well-known for its multi-channel surround sound system. My group is responsible for creating leading edge audio products for mobile market, such as DTS:X, DTS Headphone:X giving superior sound experience to the listeners.

My main responsibilities are managing the audio software engineering team of about 50 engineers, delivery of our current products on various customer devices and supporting FAE / customer support team to resolve customer issues. I collaborate with product management and sales team to deliver high-quality products to customers on time. When I joined the team, our group was suffering from delivery slips and quality issues. I came in and established simple and intuitive processes to ensure good quality and on-time delivery. I brought multi-site, multi-cultural team on the same page very quickly. I am proud to receive a recognition as a notable contributor in our quarterly group meeting.

I am very pleased that my experience was very useful to bring the engineering deliveries back on track. I also learned to simplify the processes for multi-site operations and resolve complex issues in a simple way.

## Audio Analytic, Cambridge, UK [Software Engineering Manager] Aug 2017 to Apr 2019

Audio Analytic invented a highly efficient software engine called “ai3” which runs locally on small embedded devices and recognizes the real world sounds e.g. glass break, smoke alarm, baby cry, dog bark. Our customers have integrated ai3 on their devices to notify sound events to end consumers.

My main responsibilities involved managing the ai3 software engineering team that implements ai3 software on various IoT devices. I collaborated with product management team and sales team to define roadmaps and deliver customer projects and sales demos on time. My key achievements are developing CES 2018 / 2019 demos and delivery of strategic customer projects on time with high quality. I improved agile methodologies (closer to kanban) to make it more suitable to my team that was then adapted by other teams.

I learned basics of machine learning and AI. Data is key part of machine learning but finding the best algorithm and implementing on various tiny embedded devices is the most difficult challenge, at least for us.

## ARM, Cambridge, UK [Principal Project Manager] Sep 2014 to Aug 2017

Previously worked on many ARM processors in wide range of embedded products, it was my privilege to be part of team ARM who designs the future generation of processors.

I joined ARM as a Project Manager taking over an existing project "Android 64bit" (20-25 Person Year) from a leaving Project Manager. Project Management in ARM traditionally was mostly waterfall, but it was recognized that for software projects iterative style is more appropriate. Therefore, I closed the existing project, created a new project and followed iterative Project Management (very similar to agile but custom made for our group's software projects). This project had 4 iterations in a year and every iteration had 3 agile style sprints. The process I followed was:

* Roadmap and requirement refinement (working with Product Manager and Technical team)
* Develop delivery plan and schedule based on priority (MoSCoW)
* Track and optimize plan, manage dependencies and closely monitor critical path
* Change Management (Any big change needed business unit approval)
* Lessons Learned and Risk Management (Mitigation and impact reduction plans)
* Quarterly management review and project reporting weekly basis
* Other typical Project Management that ARM processes require to comply with ISO 9000

Later, I started a new project called "Mobile Userspace" basically increased the scope of the project from just Android to wider Mobile market e.g. Chrome OS. I had three teams within this project each around 7-10 people (total 25-30 Person Year / ~$5 million). In this project, I started to adapt Agile methodologies (mainly scrum and scrumban) as required by individual project teams.

I was also involved in a Process Improvement Program, where I chaired one of the teams of various experts to drive a substantial improvement in “Cross Functional Working” across the Groups.

Gained great insight of - How ARM ecosystem works and why it is important for the success of ARM.

No control on Open source software, yet how to manage the complex software around ARM ecosystem.

## Broadcom, Cambridge, UK [Principal Engineer] Jun 2011 to Aug 2014

I worked as a Principal Engineer at Broadcom’s Cambridge development center, known for its best in class VideoCore (VC) processors in the silicon industry.

Initially, I was responsible for the VC4’s video codec software including Real Video, MPEG4 and H.264 codecs. The work involved was making sure that all the complicated video streams can be played successfully and optimized on customer platforms.

Later, I was involved in VC5 development working very closely with the Hardware team from the early phase of development to the final release of VC5 IP. My responsibility was bringing up our VP8 hardware block in VC5 for the first time. Making sure all hardware blocks works fine in the increasingly complex VC architecture was an exciting experience. During the early development phase, we developed test programs to verify newly added hardware sub-blocks. After the hardware sub-blocks were tested and integrated, we developed complete VP8 decoder software and verified the whole VP8 block in VC5. As a technical lead of VP8 project, the biggest challenge was the changes in the team members due to moving priority calls. However, working very closely with verification team and finding bugs at an early stage, we managed to successfully integrate VP8 in VC5 even with fewer resources. The verification was initially carried out on Cadence Hardware Simulator, NC Sim, and then on FPGA platform.

Successfully managed to bring-up and verify proprietary VP8 codec block in VC5 IP with the three teams working closely together: software, hardware and verification.

## NextG-Com Ltd, London, UK [Principal Engineer] Aug 2010 to Jun 2011

NextG-Com was preliminary a business partner of Intel, exclusively working on Intel's LTE initiatives. I worked as a Principal Engineer on two projects for Intel, LTE on Software Defined Radio (SDR) and LTE Regression System.

LTE on SDR; this was the R&D project initiated by Intel’s concept engineering team. The aim of this project was to develop software for SDR chip that would dynamically load the required protocol stack as per the available Mobile Network type, e.g. 2G, 3G or LTE. My key contributions were co-ordination with the team in Germany, bring up new LTE stack on SDR hardware platform, develop a system level model for ARM side software on host environment and optimize the ARM to SDR interface.

LTE Regression System; aim of this project was to bring-up and enhance the Regression Test System for LTE stack along with the legacy GSM/UMTS stack. My key contributions were set-up / enhance regression test system and develop uniform process for software development across global teams.

Being in a start-up, it was a great experience working on almost everything, from customer relation management to hands-on with leading edge LTE technology.

## Infineon/LSI/Agere Germany, UK, USA [Various: PjM, System Specialist] Sep 2003 to Aug 2010

I joined Agere Systems in Germany as a system and device driver lead for our customer NEC. I was responsible for managing all system software issues (incl. Protocol stack, Audio, USB, SIM driver) working closely with the development teams in Germany and the UK. Some of the issues were managed within the customer support team and some needed co-ordination with the development team. I was responsible for customer issue tracking; prioritizing issues, tracking to completion and making sure comments are unambiguous. I supported 5 NEC phone model launches to their customers, the network operators in France, Italy and Greece, completing operator acceptance testing. My dedication was well appreciated by the customer, when I visited their sites during the product launch.

I then moved to Samsung customer support team as a Customer Release Manager for system and driver software. Soon, I was promoted to Software Project Manager for the Samsung customer support team with a team of 10 engineers. After supporting 2 phone models, I worked out a plan to reduce the support effort by strategically keeping only one code base for all Samsung models. This involved working very closely with 4 teams: feature phone systems/platform team, smart phone systems/platform team, Access Stratum team and NAS team. It was a very exciting experience, managing the customer support team in Germany and customer in Korea, while based in the UK.

What had happened during all these years – Agere merged with LSI, and they sold its wireless business to Infineon. Infineon later decided to close its Ascot UK office in 2009. However, a few experts from the UK office were retained to support Infineon's prestigious customer project at Apple. I was one of those 5 that went on-site to Cupertino to support their iPhone-4 project. I made significant contribution of providing leadership to our on-site team and customer team on the system and driver software. My day to day work was managing and resolving critical issues on-site, coordinating other issues with the off-site teams across the globe and reporting to the customer daily. I also led the production support team in China along with customer teams, where under extreme pressure I managed to resolve production show-stoppers as soon as they were reported.

Amazing experience of what it takes to design the best in class product “Apple iPhone” and its complete life cycle. That said I also understood – why Samsung was not much behind Apple.

## Larsen & Toubro (L&T) Infotech, India [Project Lead] Oct 1996 to Sep 2003

Selected through the campus interview as an R&D Design Engineer of L&T was nothing but a dream come true. Working 7 years for this dream company, I had great opportunity to work on wide range of projects and products on real time embedded systems. I developed these products from scratch to production. They gave me ample opportunity to learn hardware and software from inside out. In just 3 years, I mastered in my department and became a very well-known expert of almost every area of real time embedded system.

Around 1999, I moved from the R&D Design center to customer projects team, where I worked on customer projects from the requirement phase to the final production. Working with multi-national customers on-site and off-shore, this group enriched my experience to the next level of excellence.

Later, I was promoted as Project Leader to manage MPEG-4 project with a team of 11 engineers. My responsibility was Project Management, Customer coordination and tracking all requirements to completion while following the best SEI/CMM5 quality practices. MPEG-4 being very new technology, the team struggled a lot initially. However, I put up a great plan to successfully achieve the completion of the project in time and won the best team award for the year.

I was then given responsibility to manage an on-site project at Sony-Ericsson in Germany, again bringing-up a team in new technology, OpenGL.

Working with new technologies, in Japan, India and Germany – I mastered building up teams in new technology, cherished managing customer relations and enjoyed learning different cultures.