

Emma Hudson, Chief Technology Officer, Gen3, Discusses How She Went From Tomboy To Tech Lead, This International Women In Engineering Day (INWED)

Interview between [Emma Hudson](#) and Gayle Paterson, Founder of [FLITE](#) (Female Leaders in Tech, Everywhere)

Mrs Round Bottom

This is the affectionate pet name that Emma's partner has given her. Why? As she can't sit still for two-minutes! Emma is a perpetual learner and is continuously thirsty for knowledge. Living life in the fast lane in both her personal and professional lives, Emma recently obtained her full motorbike license, and treated herself to a Ducati Monster 821, whilst simultaneously helping to support the electronics industry by speaking at various events to impart her expertise to the next generation of technology talent.

Being CTO and a Whole Lot More



Emma accepted the position of CTO within Gen 3 in October 2018, so she is currently in her ninth month. Prior to joining Gen 3, Emma spent over 12 years with Underwriter Laboratories (UL) as their Printed Circuit Board (PCB) Lead for Europe, Middle East, and Africa (EMEA) plus Latin America (LA) Regions, and seven years with TRW Automotive in various engineering roles, progressing up to become their Process & Materials Laboratory Manager. These positions armed Emma with a wealth of know-how and experience that she has been able to transition into her role as CTO for Gen 3.

As a self-confessed workaholic and technology enthusiast, Emma's roles expand out of the traditional nine-five arena and take her into voluntary positions where she adds breadth and depth to these organisations. Currently Emma is;

- Vice Chair and Treasurer of the [European Institute for the PCB Community](#) (EIPC)
- Chair of the [British Committee for Electronics Assembly Technology](#) (EPL 501)
- Convenor for Working Group 2 (Requirements for Electronic Assemblies) for the IEC TC 91 (Electronics Assembly Technology) committee
- Vice Chair of the 5-32A (Ion chromatography/ionic conductivity) and 5-32C (Bare board cleanliness assessment) IPC Task Groups
- The EIPCs representative on the UL Standards Technical Panel for UL 746, UL 796, UL 746F, and UL 796F, which looks after the PCB, laminate, and coatings standards
- A Trustee and member of the Finance Committee for the Electrical Safety-First charity in the UK

From Humble Beginnings

As a young girl, Emma was often referred to as a 'Tomboy.' She grew up in Hinckley, a small market town in the south-west of Leicestershire, England. Her preference was to tinker with remote control cars, train sets, and to be in her father's garage rather than to play with traditional 'girl's toys'. Her family owned and ran a 'Precision Engineering' company, therefore it was natural for Emma to follow in her family's footsteps and enter this field. Emma's journey is truly inspirational for any



female thinking about entering into the technology industry, as Emma highlights how she's moved from 'Tomboy' to 'Girl Power', listing her most recent achievements as;

- The convenor role for [IEC TC 91](#) working group 2, requirements for electronic assemblies
- Short-listed for [Women In Science and Engineering](#) (WISE), 'Women In Industry' award 2017

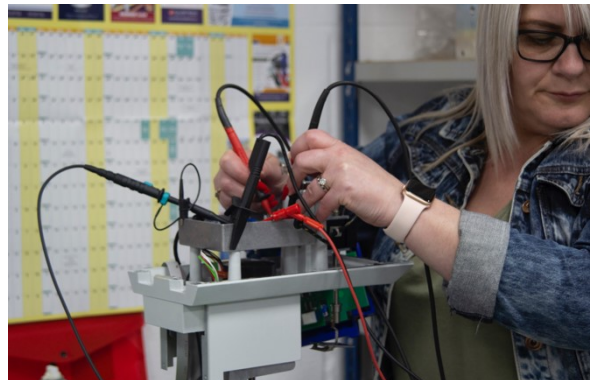
Yet, even with these accolades to her name, Emma remains humble and grounded. On the day that she chaired her first IEC TC 91 meeting, she took to Facebook to post that she couldn't believe how her life had gone full circle in around 20-years, taking her back into the automotive electronics assembly industry, one that she knows and loves, linking her back to her childhood where she 'tinkered' with those remote control cars.

On her 2017 WISE nomination, Emma was told that she had been shortlisted as she was recognised as a role model for women within the STEM fields (science, technology, engineering and maths). Being seen as a role model was incredibly flattering for Emma, who hadn't considered that what she had done throughout her career, or in her day-to-day life, would be seen in this way. She does however recognise that sometimes she can be the lone female voice in a sea of male opinions.

Finding the Right Balance

On the subject of the 'sea of male opinions', when asked if Emma believes that the electronics industry is a male dominated industry, her resounding answer was "YES". And Emma should know better than most as a veteran of electronics tradeshows, events and exhibitions, she attends and participates in many conferences and standards meetings. On a more positive note, Emma does feel that the balance is being addressed, and the ratio of females to their male counterparts is increasing, yet she still feels that we have a long way to go before we reach an equilibrium.

This is why Emma's work through her various industry associations is of the utmost importance to her, as she works to try to correct the perception of what being an engineer within the technology industry really means. 'It's not all oil under the fingernails' Emma points out. Some of the reasons that I stay in this market, apart from the fact that I enjoy what I do, is that I get to travel, see the world and experience different cultures. It's a fast-paced environment, one in which you are rewarded for your hard work. Innovation is increasing at an unprecedented rate, bringing new challenges daily. This keeps your mind fresh and active. The industry itself is loyal and incredibly protective of its people. Once you are known, you become part of one big family. There aren't many industries like that, where competitors work together for the greater good of the people and the profession.



In some ways, having a specific day to celebrate women in engineering concerns Emma, as it signifies that it's still not the norm. But in other ways it is great that we do have a day to celebrate those girls and women that have chosen this career path, have achieved such great things, and will continue to do so.

We do need to continue to hold up those in this field as role models for the next generation, so they realise it is a path they can take and how rewarding it can be if they do choose this. If girls only see men doing this type of work, subconsciously they start to think that it's not for them. If they see both



men and women doing it, then they realise there isn't a barrier to following this career path, that can be fulfilling and rewarding regardless of gender.

Gen3 for example doesn't look at gender when recruiting, they simply want to bring onboard the best of the best of the best. The company does support bringing more women into STEM fields, by supporting Emma in her various out of office activities. As a company, Gen3 has highlighted the fact that women can reach an executive position in a STEM environment, as Emma isn't the only female within the organisation who holds a technical position. So, as far as Gen3 is concerned, the question is actually, "*what glass ceiling?*"

Lastly, we asked Emma what advice she would have for anyone considering a career in electronics, technology, and/or manufacturing, and her parting words were; "*Go for it! The PCB and electronics industry are great to be a part of. You're constantly being challenged with new technology and the need to find new solutions to the problems we encounter as we introduce innovations to the world. Many aspects of the electronics industry also help people and societies to improve, so it really can be a very worthwhile industry path to be part of.*"

About Emma

Our Chief Technology Officer Emma joined the Gen3 team to assist us in the development of the company's strategy to; design, develop, deploy, and distribute our technical abilities, products and resources. Her main goal is to ensure our technologies are used efficiently, profitably and securely, whilst differentiating us in the market we serve.

Emma is a highly skilled and motivated Materials Engineer with over 19 years of experience in the electronics industry.

She holds a BEng in Materials Engineering and combines a strong technical foundation in electronics manufacturing, with advanced project management skills and product certification/validation. This provides Emma with a thorough understanding of the full product development lifecycle and the challenges of producing a reliable product and getting it to market.

Emma has a passion for STEM and bringing the next generation of technology talent to this field to share in the exciting and challenging careers that this can hold.

About Gen3

Gen3. Testing and measuring the electronics industry for over 40 years.

We are Gen3. For three generations, we have designed, engineered, manufactured, and distributed our test and measurement equipment into the electronics industry to shield your circuits from failure in the field.

Our reputation for excellence has grown to a global scale. Our team is made up of industry experts who work to set the standards around circuit testing, measurement, and compliance. We collaborate with key industry associations, offering our unique experience and expertise to educate all on what it takes to succeed. For product protection the preferred way is Gen 3, where precision comes as standard, acting as a mentor and your front-line defender.

In the high-reliability arena, there is too much at stake to allow room for error. Testing must be finite and flawless. At Gen3, we understand your need for precision. Get closer to perfection by minimising your risk.

Gen3. Precision as standard.



For more information, please visit our various platforms;

Website: <https://www.gen3systems.com/>

LinkedIn: <https://www.linkedin.com/company/586317/>

Twitter: [@Gen3Systems](https://twitter.com/Gen3Systems)

YouTube: <https://www.youtube.com/user/Gen3Systems?ob=0>

