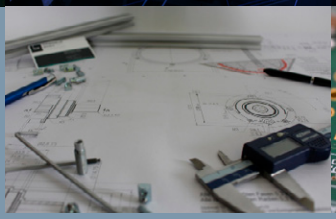
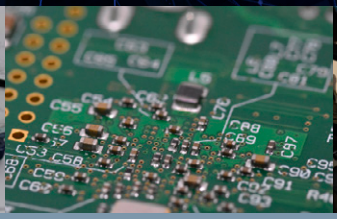
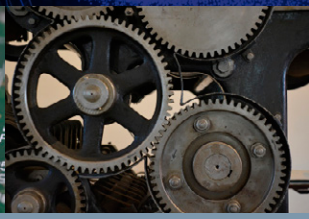
FISITA

Promoting excellence in mobility engineering

FISITA Engineers Guide to Professional Conduct







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Promoting excellence in mobility engineering

Welcome

FISITA is the international membership organisation for the technology of mobility community.

Its purpose is to support and encourage the world's engineers to achieve their goals and create solutions which continually push the boundaries of technology and improve our society, especially where they relate to mobility, safety and the environment.

To fulfil requirements and meet customer expectations, FISITA advocates that all new technologies be developed using honest and transparent processes that ensure the integrity and dependability of the end products being used by millions of customers around the world. In support of this intent, FISITA advocates the international recognition of professional, qualified and workplace ready engineers.

Chris Mason
FISITA Chief Executive Officer

Introduction

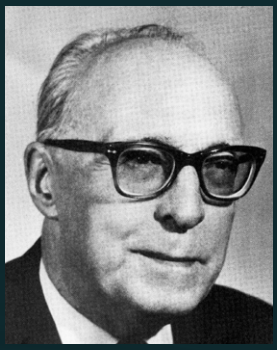
This guide has been created on behalf of the international automotive and mobility systems engineering community within the membership of FISITA. Creating a new, voluntary initiative enables FISITA to collaborate with its members and deliver a consistent, sustainable and common standing for professional and ethical engineering practices. This global initiative supports professional, qualified and workplace ready engineers, from student to CTO, while also providing important support to employers within the international workplace.

The motivation for this initiative is driven by the FISITA membership intent to support qualified engineers within the international workplace at a time of rapid advances in technology, and the fast-evolving industrial transition from traditional automobile manufacturing, to meet the engineering demands of the smart, connected, autonomous and alternatively powered mobility solutions of the future.
Created by FISITA in collaboration with its global membership, this guidance is intended to provide support to the international automotive and mobility systems engineering community as a reference document detailing a minimum set of professional and ethical approaches and behaviours. The intended spirit of this guide is to reflect a set of core values with which any aspiring, or professional engineer should be able to align.

Guiding Principle 4

'Engineers apply their initiative with integrity'

Professional engineers create future technologies; in so doing, every engineer aspires and strives to fulfil demanding personal and employer objectives, pushing the boundaries of technological advancement. As they do, each engineer thrives to commit to support the practices detailed within this guide and promote the commitment and intent to apply their initiative with integrity, in creating next generation technology for the good of society, while reducing any form of detriment, wherever possible.



"The history of the automobile, more than anything else, is the history of a revolution. In only a few years industrial methods were transformed, and along with them the means of communication, and more, the nature of rural and urban life, the way goods are distributed, and the entire economic system."

Maurice Norroy
Founding President, FISITA

Professional Competence 5

'A professional engineer strives to deliver the highest levels of competency'

Professional engineers will demonstrate a minimum threshold of competence through gaining and pursuing relevant engineering qualifications and invest in life-long learning to ensure they create, sustain and develop their engineering competence, to include theoretical and practical knowledge and developing their technical expertise, demonstrated through qualification, as their career develops. In the first instance, this means qualified engineers can solve technical issues in practical engineering as they enter the workplace as a qualified engineer, progressing to evolving specialised knowledge and skills, under the guidance and established processes of academia, professional standards and employers' expectations, before ultimately demonstrating leadership in support of others embarking on and progressing their own career pathways.

To complement engineering capability, an individual engineer should possess an understanding of, and compliance with, relevant laws, regulations, standards and specifications related to their responsibilities and take the initiative to invest in continuous associated learning, based on the occupational demands and progressive nature of their current role, and future personal, professional development aspirations.
A current working knowledge of non-engineering capabilities, such as knowledge in market and societal trends, user experience and human factors will support the progressive engineer within the international engineering landscape, knowledge of 'current to future' technological development trends and societal aspirations is a valuable asset for progressive engineering capability.

Career Learning 6

'A professional engineer invests in career learning'

Professional engineers will invest in their own continuous personal development throughout their career to ensure their skillset remains current and meets with the demands of the industry, and the expectations of their current and future employers.

This concept differs from traditional methods based upon concentrated learning at the beginning of the career journey and is of significant importance due to the pace of technological advancement and progressive engineering disciplines required to serve the mobility era. This means that traditional engineering in pure mechanical and electrical terms will progressively need to be complemented with new skills and emerging engineering disciplines such as electronics, systems, software, digital, cyber, AI, robotics and simulation in order to deliver against the capability required by the emerging industry and growing complexity of vehicle technology.

An investment in the values of growth, integration and expertise will establish a strong foundation for any engineer; as expertise is gained in multi-disciplinary engineering capability, the modern engineer becomes integrated within the value-chain of business, which can become an investment in personal growth as ownership turns into valuable leadership capability.

Engineering Ethics 7

'A professional engineer is an ethical individual'

Engineering capability is fundamental to the sustained success of the mobility industry and individual companies. In a global environment, which is seeing unprecedented technological advancement within a condensed timeframe, this trend is set to continue and accelerate. The advancement and growth mean a preparation for change is required; the demands on the engineering profession will continue to increase, requiring an innovative mindset and ability to learn for the individual engineer. With this comes a heightened requirement to understand ethics and risk management.

Professional engineers will therefore invest in ensuring the highest levels of social and professional responsibility are applied as a fundamental commitment to sustaining ethical working practices and outcomes to engineering endeavours.

To support this objective, professional engineers will benefit from being a proactive member of a peer group network, which will support them to contribute to the community, learn new skills, participate in open dialogue, identify opportunities and share best practices.

Diversity and Inclusion 8

'Engineers thrive based on their capability and potential'

Professional engineers will create intent and contribute to sustaining diversity, equity and inclusion within the workplace and colleague relationships. All engineers should expect to be able to operate in a fair and opportune environment, based on their capability and potential.

All engineers should expect to operate free of harassment and any form of discrimination, including, but not exclusive to race, gender, gender identity and expression, sexual orientation, disability, physical appearance, body size, age and religion.

Engineers should be aware of and adhere to local laws, their employer's and colleagues' expectations and their own professional behaviour, recognising the inherent value of every person and group.

Communication 9

'A professional engineer is a clear communicator and team player'

Professional engineers will be practiced and capable of giving and receiving clear verbal and written direction and ensure they are able to converse with colleagues of differing levels of seniority within the workplace and the international community, and aspire to sustain professional and collaborative relations with their colleagues and other stakeholders at all times.

Strong teamwork is essential for progressive engineering relationships, as is the personal development of teamworking capabilities within the skillset of the modern engineer, including project planning, reviewing, reporting and presentation skills, to ensure that all professional engagement is conducted in positive collaboration with colleagues, and that each individual recognises and performs their responsibilities proactively within the team.

Cross functional teamwork is an increasingly important skillset, with virtual team environments requiring greater collaboration skills, leading to an enhanced requirement for social and cultural competencies and an appreciation of diversity and language skills. In the modern, international workplace, it is vital that engineers can adapt to new working environments rapidly, while contributing positively and delivering against their teams' objectives with efficiency.

Ownership and Leadership 10

'A professional engineer takes ownership and delivers effective leadership'

Professional engineers will demonstrate a commitment to individual responsibility and ownership of decision making and associated outcomes. This requirement will become magnified as the industry evolves, as it will require more generalist engineers with capability across different engineering disciplines. Linking various engineering fields and collaboration across multiple disciplines will become critical success factors for the progressive engineer.

In parallel, the skillset of engineers will expand from predominantly technical requirements to more process-related skills, such as agile project management and communications skills; operating in virtual environments and flexible organisations will become important competencies requiring the evolved and effective leadership of projects and people. Collectively, professional engineers will ensure that the current and next generation of mobility systems engineers are supported at all times, creating the ethical engineering leaders of tomorrow.

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