Sharing Knowledge
Future of Engineering

Presented by Alpesh Patel
Pavement Design Engineer
Personal profile

- Studied Bachelor of Engineering (Honours), majoring in Civil Engineering
- Started working with Downer NZ as a graduate/site engineer in 2012
- Worked on several significant infrastructure projects

- Moved into the technical space in 2015 designing road pavements for major roads in Auckland
Life as a young site engineer
Mentoring and Support

• Professional development
• Training and guidance
• Passing on experience and knowledge
Mentoring relationship

• Sharing knowledge from mentor to mentee
• Challenges on site – dealing with difficult people
• Communication styles
Seeking advice

- Role models
  - Site supervisors
  - Project managers
- “Be like a sponge” soak up knowledge on site
- Passing on my own experiences
Sharing my experience

- Supporting new engineering graduates
- Presenting on past projects
  - Challenges on site
  - Lessons learnt
- “Nuggets of wisdom”
Inspiring the next generation

• Futureintech Programme
  • Promote engineering
  • Insight into the industry

• Presenting to school students
  • Career in engineering
  • Challenges and rewards
  • Work experiences

• Interactive learning
  • Material samples
  • Group activities
Engineering workforce

- Growing global shortage of engineers
  - 2000 graduates are required every year
  - 1500 graduates enter the market
- More initiatives need to implemented
- Securing the engineering workforce
Future of engineering

- Mentoring the current and next generation
  - Engineering graduates
  - School students
- Passing on the right values
- Future challenges
Final message

What are you doing now to mentor the next generation of engineers?
Questions?