ROSS IRWIN SCHOLARSHIP RECIPIENT – ALBERT JIANG

My contributions to water conservation issues

ABOUT MYSELF

• 4th year Water Resources Engineering Student
• Dean’s Honor List for 4 years
• Received couple scholarships
• Coop of the Year 2015 – Nominee
• Participation in water conservation related projects/activities:
  o Groundwater monitoring
  o Waste water treatment plant upgrade *
  o Investigate water usage at detailed level
    ➢ Reuse condensed water from exhaust stack *
    ➢ City floods monitoring
    ➢ Salt management on porous pavement
PAST PRACTICES

**Investigate water usage**
- Understand the problem
- Well water, but...
- Investigation
- Sankey Diagram

RECENT ACTIVITIES

Ontario Jiangsu Student Exchange Program
- 3 months research in China
- Nanjing University of Aeronautics and Astronautics
- <Monitor City Flooding with Unmanned Aerial vehicle>
  - Why care?
MONITOR CITY FLOODING – WHY CARE?

Ontario Jiangsu Student Exchange Program
• 3 months research in China
• Nanjing University of Aeronautics and Astronautics
• <Monitor City Flooding with Unmanned Aerial vehicle>
  • Why care?
  • Why UAV?

RECENT ACTIVITIES
MONITOR CITY FLOODING – WHY UAV?

Satellite Image

UAV

MONITOR CITY FLOODING – WHY UAV?
Ontario Jiangsu Student Exchange Program
• 3 months research in China
• Nanjing University of Aeronautics and Astronautics
• <Monitor City Flooding with Unmanned Aerial vehicle>
  • Why care?
  • Why UAV?
    • Accurate, instant, efficient, safe, much more detailed
  • Results
    • Height
    • Speed
    • Interval of picture taken
  • What’s next?

**MONITOR CITY FLOODING – WHAT’S NEXT**
FUTURE PLANS

- Final year design project
  - Topic: Salt management on new porous pavement
- Complete undergraduate in April 2017
- Continue graduate study and obtain Master Degree
  - Stormwater management and Low Impact Development

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Thank You