

Your Partner in PUBLIC SAFETY

International Municipal Signal Association

ITS Community College Workshop

September 20 – 21, 2017 Jeffrey G. Knight Education & Certification Manager



- IMSA is the oldest known association of its kind in the world and dates back to October 1896 when a group of municipal signal men from several east coast cities met in Brooklyn, New York and formed the International Association of Fire and Police Telegraph Superintendents
- The basic purpose of the organization was to keep its members, and others in the profession, up-to-date on proper procedures of construction and maintenance of signal systems and informed on new products and equipment developments



History

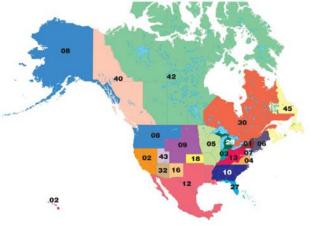
- Records show that Thomas A. Edison and the Edison Electric Company were associate members in 1901
- Association members developed standards and specifications for wire, cable, fire alarm boxes, and even the size of manhole covers
- Association members were instrumental in the founding of the Underwriters Laboratory and the National Electrical Manufacturers Association





- Membership areas are divided into geographic sections covering North America and other locations.
- There are twenty two (22) geographical Sections currently operating within IMSA.
- There is also a "Sustaining Section" that is comprised of individuals, firms, organizations and corporations with special knowledge, experience or interest in the objectives of the Association





IMSA Certification Specialties

IMSA has issued over 120,000 certifications

• Fiber Optics

Sign and Pavement Marking

- Interior Fire Alarm
- Public Reporting Systems
- Public Safety
 Telecommunication

- Transportation Center System
 Specialist
- Traffic Signal
- Traffic Signal Inspector

Roadway Lighting

 Work Zone Temporary Traffic Control



FCC Frequency Coordination

- IMSA is Certified by the FCC to provide Frequency Coordination Services
 - Fire Service
 - Emergency Medical Services
 - Local Government
 - 700/800 Systems
 - Law Enforcement
 - Transportation Agencies



Certification Demographics

The IMSA certification community consist of a wide range of individuals

- Engineers
- Electronic Technicians
- Electrical Contractors & Electricians
- Public Works Employees
- Communication Technicians
- Public Safety & Emergency Management Personnel



Knowledge - Skills – Abilities (KSA's) Nuts & Bolts

- Electrical Theory
- National Electrical Code & National Electrical Safety Code
- NFPA 70E Electrical Safety In The Workplace
- Outside Plant & Premise Installations
- Telecommunications
 - Network Communication Topology
 - MAN WAN LAN
 - Wired Fiber Optic & Copper
 - Wireless RF & Visual
- Grounding & Bonding
- Surge & Lightning Protection



Knowledge - Skills – Abilities (KSA's) Nuts & Bolts

- MUTCD
- ADA
- Traffic Signal Theory & Operation
- Vehicle Detection & Preemption
- Video CCTV
- Communication Dispatch Center Technology & Operation
- Standby Power Systems
 - Generators
 - UPS
 - Standby Batteries



Knowledge - Skills – Abilities (KSA's) Nuts & Bolts

- State & Local Laws Regulations
 - Many States require professional credentials such as licensing
 - Journeyman Electrician
 - Telecommunications Technician
- Transportation Systems Terminology
 - Acronyms



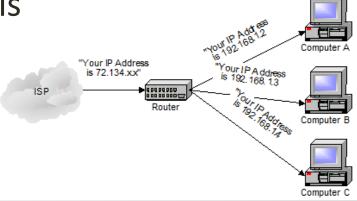
The ITS Technician - Workforce In The IMSA World

- Current Practitioners
 - Technical-Vocational Education
 - Professional Trade Apprenticeship
 - On The Job Training
- Public Sector
 - Report to a division of a Public Works or Utilities Department
 - Responsibilities can include:
 - Traffic Signals
 - Utility Monitoring
 - Signs & Pavement Markings
- Private Sector
 - Contractors specialized in specific technologies



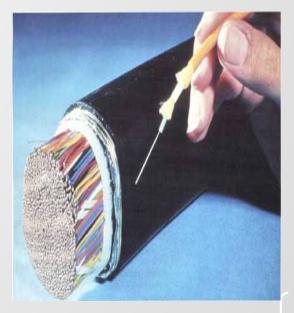
The Missing Links Of Skill Sets

Network Topology & Protocols



Communication Technology & Physical Pathways







Challenges **Current & Future**

- Majority of the current workforce changes within the next 5 to 10 years
- Define the role(s) of the ITS Technician
- Workforce Recruitment & Marketing



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