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## Director's Message



With its longer days, warmer temperatures, and trees in full foliage, May is one of my favorite months.

For many in the United States, the Memorial Day holiday at the end of the month marks the unofficial start of Summer. While the long weekend is the perfect opportunity for travel and cookouts, its origin and significance are far more profound.

Originally called Decoration Day, Memorial Day is a day of remembering the men and women who died while serving in the United States Armed Forces. While the origin of the holiday is unclear, it is important that its true intention is never lost.

Wherever your travels may take you this holiday, please take a moment to reflect upon those who have made the ultimate sacrifice in the service of their country and say a prayer for them and their families.

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## Infrared Inspection of Capacitors

Capacitors are devices commonly found in AC electrical distribution systems where power factor correction is required. Like any electrical component, capacitors need to be regularly checked for proper operation. Infrared thermography can be used to rapidly inspect capacitors from a safe, remote distance.



Capacitors are wound devices that are electrically connected between potential and ground. Capacitors used for power factor correction are generally encased in painted, rectangular steel canisters and often have two equal sized bushings for electrical connections. In a three phase circuit, there may be several capacitors connected to each phase.

## Upcoming Courses

### [Level I Certified Infrared Thermographer](#)<sup>®</sup>

- May 13 - 17 Perth
- May 13 - 16 Seal Beach
- Jun 10 -14 Trinidad
- Jun 24 - 28 Kuala Lumpur
- Jul 8 - 11 Seal Beach
- Jul 22 - 26 West Windsor
- Jul 22 - 26 Montreal
- Aug 12 - 15 Seal Beach
- Aug 26 - 30 Kuala Lumpur
- Sep 2 - 6 Sydney
- Sep 23 - 27 Gold Coast

### [Level II Certified Infrared Thermographer](#)<sup>®</sup>

- Jun 10 - 14 West Windsor
- Jun 24 - 28 Trinidad
- Jul 22 - 26 Kuala Lumpur
- Sep 16 - 20 West Windsor

### [Level III Certified Infrared Thermographer](#)<sup>®</sup>

- Sep 23 - 25 West Windsor

The most common failures of capacitors are loose/deteriorated bushing connections, open circuits due to internal winding failure, and open supply circuits. When inspecting capacitors, be sure to:

- Visually inspect capacitor bodies. Capacitors should not be misshapen/swollen.
- Thermographically inspect capacitor bodies. Capacitors should be warmer than ambient air temperature and exhibit equal temperatures across all phases.
- Check bushing and wiring connections for hotspots.

Any thermal anomalies detected should be investigated and corrected as soon as possible. Capacitors operating at ambient temperature should be corrected immediately as imbalanced capacitance can be more detrimental than having no capacitors at all.

### [More Information](#)

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## Infraspection Proposal Templates



For professional thermographers, the first step in approaching any new project should be to generate a formal proposal. This proposal should contain all information pertinent to the project and be sufficiently detailed to reflect the responsibilities of all parties including the client and the thermographer.

Infraspection Institute offers standard proposal templates for several different types of residential and commercial infrared inspections. Each template provides suggested wording and format for preparing a comprehensive and professional proposal.

Nine proposal templates are currently available covering the following applications: electrical systems, mechanical systems, electro/mechanical systems, photovoltaic systems, building envelopes, insulated roofs, process equipment, steam traps, and underground piping. Each template outlines scope of work, pricing options, client and thermographer responsibilities, applicable standards, additional services, and terms.

All templates are provided in a Microsoft Word file and can be modified to suit the user's particular needs. Templates may be used as core language for contract documents. Purchase price includes license for unlimited use of the template by the original purchaser. Templates are available individually or as a complete set of nine.

### [More Information](#)

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## Call for Papers for IR/INFO 2020

### [Full 2019 Schedule](#)

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## Upcoming Conferences

Infraspection Institute invite you to see us at the following upcoming conferences. Be sure to stop by and say Hello!

### [Ultrasound World](#)

May 14 - 17, 2019  
Clearwater Beach, FL

### [Thermal Imaging Conference](#)

October 3 - 6, 2019  
Irvine, CA

### [SMRP Conference](#)

October 7 - 10, 2019  
Louisville, KY

### [IR/INFO Conference](#)

January 19 - 22, 2020  
San Antonio, TX

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## Links of Interest

[IRINFO.ORG](#)

[NACBI](#)

[CITA.ORG](#)

[Temperatures.com](#)

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Infraspection Institute are pleased to announce that our annual Advanced Training Conference, Technical Symposium and Technology Expo, IR/INFO 2020, will be held January 19 – 22, 2020 in San Antonio, Texas. Now in its 31st year, IR/INFO features four days of networking, learning, and fun in a relaxed, yet professional, family atmosphere.



We are presently seeking papers and presenters for IR/INFO 2020. Invited topics include, but are not limited to: safety, emerging applications, building sciences, related NDT, case histories, as well as tips and tricks.

Presentations are typically 20-25 minutes with 5 minutes for questions and answers with the audience. All papers and presentations will be published in the IR/INFO Conference Proceedings. The deadline for abstract submissions is July 31.



[More Information](#)

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## Run With the Big Dogs



[Become an Infraspection Institute Master Thermographer®](#)

