

# **Preliminary Program**

# **2007**

# **41<sup>st</sup> Annual IEEE International Carnahan Conference on Security Technology**

**October 8-11, 2007  
Hampton Inn, Ottawa, Ontario**

## **SPONSORED BY**

---



IEEE Lexington Section, USA



IEEE Aerospace and Electronic Systems Society, USA



Chung Shan Institute of Science, Taiwan, ROC



National Central University, Taiwan, ROC

## **in association with**

---



Sandia National Laboratories

**Senstar**  **Stellar<sup>®</sup>**

[www.carnahanconference.com](http://www.carnahanconference.com)



**PRELIMINARY PROGRAM**

**PURPOSE**

This international conference is designed to address the research and development aspects of electronic security technology. It provides a forum for the exchange of ideas and dissemination of information on new and existing technology. Conference participants are encouraged to consider the impact of their work on society. The Carnahan Conference also provides a basis for long-range support and assistance to authorities and agencies responsible for security, safety and law enforcement in the use of available and future technologies. A conscious effort will be made to communicate the significance of developments to other interested groups. Liaison is also maintained with professional societies and information media not related to engineering.

**ABOUT THE VENUE**

The Hampton Inn and Conference Center is Ottawa's newest conference facility. It offers 24,000 square feet of conference space, a captivating 90-foot windowed atrium, two spectacular theatres and five boardrooms. This state-of-the-art facility features an architectural design that highlights the unique landscape of Canada's National Capital. The Hampton Inn offers complimentary breakfast, high speed internet, indoor parking, exercise rooms, an indoor pool and whirlpool. The facility honours Hilton points.

**ABOUT OTTAWA**

Come and experience one of the most beautiful capitals of the world! Steeped in heritage and culture, with a splash of pomp and pageantry, Ottawa offers visitors plenty in the areas of culture, history and natural outdoor attractions. Experience any one of our 30 museums, 50 galleries and theatres, numerous night clubs, fine dining establishments, heritage sites, festivals or sports events. Our fine city also offers world-class shopping, stunning architecture, a range of cultural activities, tours and natural wonders – all of which offer friendly people.

As a global technology and business centre, Ottawa has more than 1,500 companies involved in key growth sectors such as telecommunications, software, photonics, semiconductors, defense and security, life sciences, tourism, wireless technologies, film and video, multimedia, professional services and contact centres. The region also benefits from the entry of new seed industry sectors such as biophotonics, environmental technologies, electronic pay systems, and micro electromechanical systems (MEMS).

You will also experience Ottawa's different cultures, languages and religions, which reflect our diverse multicultural community. In addition to the technical sessions at this year's conference, plans are underway for additional activities.

## **CARNAHAN CONFERENCE ON SECURITY TECHNOLOGY**

For conference delegates a Conference Tour is scheduled for October 11, 2007 at 12:30p.m. which includes transportation and lunch. Details to follow on the conference website.

### **Partner Program Planned activities:**

- A visit to the Governor's General residence "Rideau Hall"– the home and workplace of every Governor General since Confederation in 1867, Rideau Hall is a 7- acre oasis of beautifully landscaped grounds.
- Parliament Hill is a must see for visitors to the Nation's capital. The Parliament buildings are rich in history and architecture. This tour includes a visit to the Peace Tower which gives a spectacular view of the city.
- Fall Foliage Tour - Golds, ruby reds and fiery oranges announce the arrival of fall with breathtaking views as you travel through the magnificent Gatineau Hills, renowned for their landscapes and fall colors.
- Pricing and further information on all activities will be available in August on the conference website.
- Registration deadline: September 20, 2007.

### **Other activities:**

- The Annual Carnahan Golf Tournament will be held at the The Meadows Golf and Country Club on October 8, 2007. Everyone is welcome to participate.
- The Annual Banquet is being held at the Canada Aviation Museum which is recognized as having the most extensive aviation collection in Canada and ranks among the best in the world. A tour will be included.
- Ottawa is home to 2007 NHL Stanley Cup Finalists, the Ottawa Senators. Information and pricing to attend a game on Thursday, October 11th at Scotiabank Place will be available in the near future on the Carnahan website. (Subject to availability.)

*CARNAHAN CONFERENCE ON SECURITY TECHNOLOGY*  
**Hampton Inn and Conference Center**  
**Ottawa, Ontario**





## **ICGST EXECUTIVE COMMITTEE**

Alfonso Bilbao, Security Consultant, SPAIN  
Hsia-Ling Chiang, ROC  
Ron Clifton, International Datacasting, CANADA  
Nigel Custance, Home Office, UK  
Gene Greneker, Georgia Tech Research Institute, USA  
Nigel Grist, Canberra, AUSTRALIA  
Michel Jonckheere, Consultant, Ottawa, CANADA  
Rick Lazarick, CSC Identity Labs, USA  
Daniel A. Pritchard, Sandia National Laboratories, USA  
Brian G. Rich, Senstar-Stellar, CANADA  
Larry Sanson, Consultant, USA  
Clifton Smith, Edith Cowan University, AUSTRALIA  
Dr. G. Dan Smith, L-3, USA  
Dr. Mark Stroud, HOSDB, UK  
Dr. Adrian Schwaninger, SWITZERLAND  
Dr. Gordon Thomas, Consultant, UK  
Robert Trebits, AESS Board of Governors, USA  
Jack D. Veatch, SAIC, USA  
Thomas M. Wood, GSA, USA  
So-Lin Yen, Ministry of Justice, ROC

## **International Advisory Committee**

Pieter de Bruyne, Consultant, SWITZERLAND  
Miguel A. Ferrer, University Las Palmas de G.C., SPAIN  
Milos Klima, Czech Technical University, CZECH REPUBLIC  
Gerry Levett, G. Levett and Associates, CANADA  
Max Robinson, The Nottingham Trent University, UK

## For Further Information

### Within the United States

Larry D. Sanson

Chairman, IEEE ICCST

186 Woodwalk Court

Nicholasville, KY 40356, USA

TEL: (859) 223-9840 FAX: (859) 224-3225

ldsanson@msn.com

Daniel A. Pritchard

Sandia National Laboratories

Security Systems and Technology Center

P.O. Box 5800 MS 0780

Albuquerque, NM 87185-0780, USA

TEL: (505) 844-7444 FAX: (505) 844-5569

dpritch@sandia.gov

Gene Greneker

Georgia Tech Research Institute

SEAL, CCRF

7220 Richardson Road

Smyrna, GA 30080, USA

TEL: (770) 528-7744 FAX: (770) 528-7728

gene.greneker@gtri.gatech.edu

Rick Lazarick

8 Blackwood Drive

West Trenton, NJ 08628

TEL: (609) 883-6767; (717)-909-5105;

809-883-1234 FAX: (609) 883-6767

rlazarick@csc.com

John D. "Jack" Veatch

Science Applications International Corporation

8301 Greensboro Drive, MS 8-6

McLean, VA 22102, USA

TEL: (703) 676-6429 FAX: (703) 676-6439

john.d.veatch@saic.com



## For Further Information (Con't)

### North and South America (Except USA)

Brian G. Rich, Chairperson  
Senstar-Stellar Corporation  
119 John Cavanaugh Drive  
Carp, Ontario, CANADA K0A 1L0  
TEL: (613) 839-5572 FAX: (613) 839-5830  
brich@senstarstellar.com

### Western Europe

Dr. Gordon L. Thomas  
30 Tudor Avenue  
Worcester Park  
Surrey, ENGLAND KT4 8TY  
TEL: 44-208-337-3707  
gordonl.thomas@virgin.net

### Eastern Europe

Pieter de Bruyne  
Pfadhagstrasse 2  
CH8304 Wallisellen, SWITZERLAND  
TEL/FAX: 1011 (411) 830-4239  
pbruyne@bluewin.ch

### Asia

So-Lin Yen  
Deputy Director  
The Computer Center  
Ministry of Justice Investigation Bureau  
P.O. Box 340 Taipei, TAIWAN ROC  
TEL: 011 (886) 2-2911-2241 Ext. 2900  
FAX: 011 (886) 2-2915-4358  
solin.yen@msa.hinet.net

### Australia/South Pacific

Clifton Smith  
Edith Cowan University  
100 Joondalup Drive  
Joondalup, WESTERN AUSTRALIA 6027  
TEL: 61-8-9400-5027 FAX: 61-8-6304-5811  
clifton.smith@ecu.edu.au

## 41st International Carnahan Conference on Security Technology

**October 8-11, 2007**  
**Hampton Inn and Conference Center**  
**Ottawa, Ontario**

Online conference registration payment is by

**CREDIT CARD ONLY**

Please have your Credit Card ready before starting  
American Express, Diners, Discover, MasterCard and Visa accepted

Registration questions or concerns contact Diana Krynski  
+1800 810 4333 USA & Canada, or +1 732 981 3414  
iccst07reg@ieee.org

For hotel accommodations at the Hampton Inn and Conference Center:  
Reserve by calling Ms Valentina Gaca at the Hampton Inn and  
Conference Center +613-741-2300  
or email: Valentina\_Gaca@hilton.com

Room Rate: \$122.00 Cdn (\$115.00 US)\* single or double occupancy  
You must mention that you are attending the Carnahan Conference  
Group code **785**  
(\* Could change depending on currency exchange)

Room rates are subject to 15% tax per night occupancy fee  
The room must be booked by **SEPT 8th** to receive discount

Conference room rate is only available October 7th - 13th, 2007  
Tel: +1-613-741-2300 / +1-877-701-1281 Fax: +1-613-741-8689

The Hampton Inn accepts Visa, MasterCard and American Express  
Hotel check-in is 3:00 p.m. and check-out is 12:00 p.m.

Questions about the conference?

If you are interested in exhibiting at the Carnahan Conference, need  
more information about the Carnahan Golf Tournament, or have other  
questions please contact:

Shirley Reddick, Conference Secretary - sreddick@senstarstellar.com  
or  
Brian Rich, Conference Chair - brich@senstarstellar.com

Place  
Postage  
Stamp  
Here

**IEEE INTERNATIONAL CARNAHAN CONFERENCE  
ON SECURITY TECHNOLOGY 2007  
Ms. Shirley Reddick  
c/o Senstar-Stellar Corp.  
119 John Cavanaugh Drive  
Carp, ON K0A 1L0**

# 41<sup>st</sup> International Carnahan Conference on Security Technology 8-11 October, 2007

## CONFERENCE REGISTRATION FORM Hampton Inn & Conference Center Ottawa, Ontario CANADA

Please print or type all information, abbreviating as necessary

First Name: \_\_\_\_\_

Last Name: \_\_\_\_\_

Company/Institution: \_\_\_\_\_

Address: \_\_\_\_\_

City/State/Prov.: \_\_\_\_\_

Country, Postal Code/Zip: \_\_\_\_\_

Phone: \_\_\_\_\_

Fax: \_\_\_\_\_

Email: \_\_\_\_\_

IEEE Member No.: \_\_\_\_\_

### REGISTRATION FEES (All Fees in US\$):

*Registration fee includes: Copy of printed proceedings; Welcome Reception Monday; Continental Breakfast (Hotel guests only) Tuesday; Wednesday and Thursday. Lunch Tuesday, Wednesday and Thursday. Banquet on Wednesday and Optional Group Tour on Thursday (to be arranged). Exhibitor fee includes two registrations.*

	On/Before Aug. 15, 2007	After Aug. 15, 2007
IEEE Member	\$650.00	\$750.00
Non-Member	\$750.00	\$800.00
Military/Gov't Rate	\$650.00	\$750.00
Student	\$400.00	\$450.00
Exhibitors	\$1,500.00	\$1,800.00

**Speaker and Primary Authors \$400.00 (per paper)**

*Fee must be paid with or prior to paper submittal. The cut off for author registration is July 27, 2007. One conference registration per paper submitted. If fee is not paid, the paper will not be published. There are no refunds for authors.*

Paper Title: \_\_\_\_\_

### OPTIONAL ITEMS:

Registrants please select box if vegetarian meal is required

Additional Banquet ticket (Wed.) Qty \_\_\_\_\_ @ \$60.00

- One day registration includes lunch for that day \$275.00  
Please select day:  Tuesday  Wednesday  Thursday
- Golf Tournament October 8th includes lunch, cart, practice range and prizes. <http://www.themeadowsgolf.com> QTY \_\_\_\_\_ @ \$75.00
- Conference Tour - Please select box if you would like to attend the conference tour - Oct. 11th - Afternoon. Includes transportation and lunch. Details to follow, please visit website

Partner Program - Tuesday and Wednesday. Includes transportation and luncheon. Pricing and details to follow, please visit website

For information please go to the conference website below:  
[http://www.carnahanconference.com/Conferences/2007\\_Ottawa/2007\\_ottawa.html](http://www.carnahanconference.com/Conferences/2007_Ottawa/2007_ottawa.html)

**PAYMENT:**

Registration Fee	\$ _____
Optional Items	\$ _____
<b>TOTAL (US\$):</b>	\$ _____

**METHOD OF PAYMENT:**

- Check (in USD) made out to: **IEEE/07ICCST**
- Visa     MasterCard     Amex     Diners     Discover

---

Card Number & Exp. Date

---

Cardholder Name

---

Signature

**Wire Transfer**

*If you wish to pay by Wire Transfer please contact Diana Krynski for bank information. A copy of your wire transfer must accompany your conference registration and include all transfer fees.*

**PLEASE MAIL COMPLETED FORM AND PAYMENT TO:**

IEEE/CMS, ATTN: Diana Krynski  
445 Hoes Lane, Piscataway, NJ 08855-1331  
Phone: 732-981-3414 Fax: 732-465-6447  
E-mail: [iccst07reg@ieee.org](mailto:iccst07reg@ieee.org)

*All requests for refunds must be in writing, or email. No refund will be given After September 20, 2007. There will be a \$100.00 service charge on all refunds.*

For more information, please refer to Conference Website.  
<http://www.carnahanconference.com>



Place  
Postage  
Stamp  
Here

**IEEE INTERNATIONAL CARNAHAN CONFERENCE  
ON SECURITY TECHNOLOGY 2007  
Ms. Shirley Reddick  
c/o Senstar-Stellar Corp.  
119 John Cavanaugh Drive  
Carp, ON KOA 1L0**

# 41<sup>st</sup> International Carnahan Conference on Security Technology 8-11 October, 2007

## EXHIBITOR REGISTRATION FORM Hampton Inn & Conference Center Ottawa, Ontario CANADA

Please print or type all information, abbreviating as necessary

First Name: \_\_\_\_\_

Last Name: \_\_\_\_\_

Company/Institution: \_\_\_\_\_

Address: \_\_\_\_\_

City/State/Prov.: \_\_\_\_\_

Country, Postal Code/Zip: \_\_\_\_\_

Phone: \_\_\_\_\_

Fax: \_\_\_\_\_

Email: \_\_\_\_\_

IEEE Member No.: \_\_\_\_\_

### REGISTRATION FEES (Fees in US\$)

*Exhibitor fee includes: Copy of printed proceedings, Welcome Reception Monday, Continental Breakfast (Hotel guests only) Tuesday, Wednesday, and Thursday, Lunch Tuesday, Wednesday, and Thursday. Banquet on Wednesday, and Optional Group Tour on Thursday to be arranged. Exhibitor fee includes two registrations*

	<b>On/Before</b>	<b>After</b>
	<b>Aug. 15, 2007</b>	<b>Aug. 15, 2007</b>
Exhibitors	\$1,500.00 US\$	\$1,800.00 US\$

### EXHIBITOR FEE (Includes the following)

*8' draped table, two chairs, exhibitor sign 18"x24", wastebasket, one 500 watt electrical outlet, and two conference registrations. This is a table top show.*

*Exhibit set-up time is October 8th: 2:00 – 8:00 p.m. ; exhibit breakdown will be after 12:30 p.m. on the Oct. 11th. Exhibit area will be open 8:30 a.m. to 5:00 p.m. on Tuesday and Wednesday, Thursday .8:30 a.m. – 12:30 p.m. Room is secure during conference.*

### OPTIONAL ITEMS

Registrants please select box if vegetarian meal is required.

*Additional Banquet ticket (Wed) QTY \_\_\_ @ \$60.00*

Golf Tournament Monday, October 8th includes lunch, cart, practice range and prizes QTY \_\_\_ @ \$75.00

Conference Tour - Please select box if you would like to attend

Tour - Oct. 11th - Afternoon. Includes transportation and lunch.  
Details to follow, please visit website



Partner Program - Tuesday and Wednesday. Includes transportation and luncheon. Pricing and details to follow, please visit website

For information please go to the conference website below:

[http://www.carnahanconference.com/Conferences/2007\\_Ottawa/2007\\_ottawa.html](http://www.carnahanconference.com/Conferences/2007_Ottawa/2007_ottawa.html)

**METHOD OF PAYMENT:**

Check (in USD) made out to: **IEEE/07ICCST**

Visa     MasterCard     Amex     Diners     Discover

---

Card Number & Exp. Date

---

Cardholder Name

---

Signature

**Wire Transfer**

*If you wish to pay by Wire Transfer please contact Diana Krynski for bank information. A copy of your wire transfer must accompany your conference registration and include all transfer fees.*

**PLEASE MAIL COMPLETED FORM AND PAYMENT TO:**

IEEE/CMS, ATTN: Diana Krynski  
445 Hoes Lane, Piscataway, NJ 08855-1331  
Phone: 732-981-3414 Fax: 732-465-6447  
E-mail: [iccst07reg@ieee.org](mailto:iccst07reg@ieee.org)

*All requests for refunds must be in writing, or email. No refund will be given After September 20, 2007. There will be a \$100.00 service charge on all refunds.*

*For more information, please refer to Conference Website.*

<http://www.carnahanconference.com> or contact  
Shirley Reddick - [sreddick@senstarstellar.com](mailto:sreddick@senstarstellar.com) - Phone 613-839-5572  
Conference Chairperson – Brian Rich - Phone 613-839-5572



## CARNAHAN CONFERENCE ON SECURITY TECHNOLOGY

41st IEEE INTERNATIONAL CARNAHAN CONFERENCE ON SECURITY TECHNOLOGY  
OCTOBER 8-11th, 2007  
Ottawa, Ontario, Canada

### Hampton Inn and Conference Center Exhibitor Rules and Regulations

1. Exhibit space is allocated on a first-paid basis. Priority is determined by date of receipt of applications and full payment.
2. All payments must be received by September 15, 2007. All reservations made after that time must be followed by a payment within 3 working days. Reserved booths will be released if payment has not been made.
3. 50% refund will be given to those who supply a written notice of cancellation by September 20, 2007. No refunds will be made for cancellations received after this date.
4. Exhibit/booth fees include: 8' draped table, two chairs, an exhibitor sign 18" x 24", wastebasket with liner, one 500 watt electrical outlet, and two conference registrations. This is a table top conference ONLY, call for further information.
5. All exhibits must fit within the confines of their assigned space so as not to impede traffic flow, infringe on the space of other exhibitors or violate emergency exit routes set forth by the fire marshal.
6. The ICCST Executive Committee reserves the right to rearrange the floor plan based on unsold exhibit space.
7. Neither IEEE, nor the Hampton Inn and Conference Center shall be liable for the damage, loss, or destruction of exhibits due to fire, theft, accident, or their destructive causes. Exhibitors shall lease booth(s) at their own risk. Neither IEEE or the Hampton Inn and Conference Center nor any of their agents or employees will be accountable or liable for accidents to exhibitors, their agents or their employees.
8. The exhibitor shall be liable to the Hampton Inn and Conference Center for any damage to the building an/or fixtures and furniture, which occur through acts or omissions of the exhibitors, their agents, or their employees.
9. Exhibitor assumes the entire responsibility and hereby agrees to protect, indemnify, defend and hold harmless IEEE and the Hampton Inn and Conference Center, their officers, employees, and agents against all claims, losses and damages to persons and property, governmental charges or fines, and attorney's fees arising out of or caused by exhibitors installation, removal, maintenance, occupancy or use of the exhibition premises or any part thereof, including any outside exhibit areas.
10. IEEE and the Hampton Inn and Conference Center do not maintain and are not responsible for obtaining insurance covering exhibitor's property. Exhibitors should obtain business interruption and property damage and loss insurance to cover such occurrence.
11. No photography is allowed without the permission of the booth staff.
12. Exhibit set-up time is October 8th: 2:00 – 8:00 p.m.; exhibit breakdown will be after 12:30 p.m. on Oct. 11th
13. Exhibit area will be open 10:00 a.m. to 5:00 p.m. on Tuesday, October 9th and 8:30 a.m. – 5:00 p.m. on Wednesday October 10th, 8:30 a.m.-12:30 p.m., October 11th.

---

Exhibitor Company Name

---

Representative Signature

---

Date



## 2007 IEEE ICCST Program - Preliminary

**Monday, October 8, 2007**

09:00–14:00pm

**Annual ICCST Carnahan Cup Golf Tournament**

The Meadows Golf & Country Club

14:00–20:00pm

**Exhibitor Setup**

18:30–21:00pm

**Registration & Reception with light hors d'oeuvres**

**Tuesday, October 9, 2007**

08:00–09:00am

**Registration**

09:00–09:30am

**Opening Remarks & Introductions**

09:30–10:00am

**Keynote Speaker**

10:00–17:00pm

**Exhibits Open**

10:00–10:30am

**Morning Break**

10:30–12:00pm

**Session 1a: Security Program & System Design**

**Moderator:** Mr. Gene Greneker, USA

*It's All About the System: Changing The Way We Think About  
Designing Security Systems*

Kerrin A. Barrett - Sandia National Laboratories, USA

*Protecting the U.S. Chemical Sector*

Steven G. King, Thomas M. Wood - GSA, USA

*An Initiative to Improve the State of Information Security at Local  
Governments in Japan*

Davar Pishva, Naoshi Kitamura, Seiji Tsugawa, Keiji Takeda -  
Carnegie Mellon CyLab, Japan

**Session 1a: Security Program & System Design (Con't)**

*Critical Energy Infrastructure Protection in the Arab Gulf Using Multiple Technological Platforms*

Halim Abd El Halim, Martin Rudner, Roshdy H.M. Hafez - Carleton University, Canada

**Session 1b: Biometrics**

**Moderator:** Mr. Alfonso Bilbao, Spain

*Fake Fingerprint Detection Using Sample Quality Measures*

Stephen J. Elliott , Hakil Kim, Matthew R. Young, Shimon Modi - Purdue University, USA

*Increasing Security with Correlation-Based Fingerprint Matching*

Almudena Lindoso, Luis Entrena, Judith Liu-Jimenez, Enrique San Millán - University Carlos III of Madrid, Spain

*Vascular Biometric Systems & Their Security Evaluation*

Raul Sanchez-Reillo, Belen Fernandez-Saavedra, Judith Liu-Jimenez, Carmen Sanches-Avila - University Carlos III of Madrid, Spain

*Low Cost Multimodal Biometric Identification System Based on Hand Geometry, Palm & Fingerprint Texture*

Miguel A Ferrer, Carlos M. Travieso, Jesús B. Alonso - Universidad de Las Palmas de Gran Canaria, Spain

12:00-13:00pm

**Lunch Break**

13:00-15:00pm

**Session 2a: Security Risk Assessment**

**Moderator:** Dr. Mark Stroud, UK

*RFID Security Threats to Consumers: Hype vs. Reality*

Shantanu Rao, Nagaraja Thanthry, Ravi Pendse - Wichita State University, USA

*A Risk Management Method Based on the AS/NZS 4360 Standard*

Alejandro Castillo, Enrique Bilbao, Alfonso Bilbao - Universidad Politecnica de Madrid, Spain

*Securing Large Applications Against Command Injections*

Guy-Vincent Jourdan - University of Ottawa, Canada

*Implementing Known Shipper Supply Chain Security Solutions in the USA & Europe*

Marcus Hallside - Innovative Compliance Inc, USA

**Session 2b: Biometrics (Cont'd)**

**Moderator:** Mr. Rick Lazarick, USA

*Bacterial Survivability & Transferability on Biometric Devices*  
Christy Blomeke, Stephen J. Elliott, Thomas Walter, Brandt M. Davis, James E. Tollefson - Purdue University, USA

*Smart-Card-Based Face Verification System: Empirical Investigation on the Selection of Filtering Parameters & Number Of Eigenvectors*  
Thirimachos Bourlai, Josef Kittler, Kieron Messer - University of Surrey, UK

*Arbitrary Illumination Conditions for Facial Identification*  
Carlos M. Travieso, Jesús B Alonso, Miguel A. Ferrer - Universidad de Las Palmas de Gran Canaria, Spain

*Robust Biometric Identification Combining Face & Speech*  
Enric Monte-Moreno, Marcos Faundez-Zanuy - Universitat Politècnica de Mataró (UPC), Spain

15:00-15:30pm

**Afternoon Break**

15:30-16:30pm

**Session 3a: Border & Port Protection**

**Moderator:** Mr. Jack Veatch, USA

*Border Intrusion Detection - Thinking Outside the Perimeter*  
Dr. Keith Harman, Gord Loney - Senstar-Stellar Corporation, Canada

*PortSim - A Port Security Simulation & Visualization Tool*  
Dr. Daniel B. Koch - Oak Ridge National Labs, USA

*How to Increase Performance in Airport Security*  
Dr. Adrian Schwaninger - University of Zurich, Switzerland

*A New Worldwide Traceability Technology to Complement GPS*  
André Gagnon - Tektrap Systems Inc., Canada

**Session 3b: Biometrics & Communication Security**

**Moderator:** Mr. Ron Clifton, Canada

*Spectroscopic Approach for Aliveness Detection in Biometrics Authentication*  
Davar Pishva - Carnegie Mellon CyLab, Japan

*Indirect Human Computer Interaction-Based Biometrics for Intrusion Detection Systems*  
Roman V. Yampolskiy - University at Buffalo, USA

*Quantum Wireless Secure Communication Protocol*  
Tien-Sheng Lin, Sy-Yen Kuo - National Taiwan University, Taiwan

**Session 3b: Biometrics & Communication Security (Con't)**

*TacNet: Mobile Ad Hoc Secure Communications Network*

Loren E. Riblett, James M. Wiseman - Sandia National Laboratories, USA

**Wednesday October 10, 2007**

08:30–17:00pm

**Exhibits Open**

08:30–10:00am

**Session 4: Intrusion Detection Systems**

**Moderator:** Mr. Nigel Grist, Australia

*Conductive Sensor Cables for Perimeter Intrusion Detection*

Dr. Mel Maki - Senstar-Stellar Corporation, Canada

*Seismic-Based Personnel Detection*

Dr. Lindamae Peck, James Lacombe - US Army Engineer Research & Development Center (CRREL), USA

*Benefits of Wide Area Intrusion Detection Systems*

Walker Butler - ICx Radar Systems – STS Radars, USA

*The Secure Perimeter Awareness Network (SPAN) at JFK International Airport*

Ann Barry, David S. Mazel, John O'Neil - Technology Service Corporation, USA

10:00–10:30am

**Morning Break**

10:30–12:00pm

**Session 5: Intrusion Detection System Developments**

**Moderator:** Mr. Dan Pritchard, USA

*Wide Area Surveillance Employing Millimeter Wave Radar*

Pierre Poitevin, Alan Browne - ICx Radar Systems Inc., Canada

*Experience with the Latest Generation Electric Field Sensors*

Jeremy Weese, Eugene Kozar - Senstar-Stellar Corporation, Canada

*Recent Developments in Ground Based Millimeter Wave Radar*

André Gagnon - KG Spectrum Inc., Canada

*Experience with Ranging Buried Cable Sensing*

Bill Hodgins, Dr. Keith Harman - Senstar Stellar Corporation, Canada

12:00–13:00pm

**Lunch Break**



13:00–15:00pm

**Session 6: Information Technology**

**Moderator:** Dr. Gordon Thomas, UK

*Video Encryption for Security Surveillance*

Jun Huang - GenieView Incorporated (CRC), Canada

*Towards Privacy in Enterprise Directory Services : A User-Centric Approach to Attribute Management*

William Claycomb - Sandia National Laboratories, USA

*Secure Routing Protocols for Wireless Sensor Networks*

Hiren Kumar Deva Sarma, Avijit Kar, - Manipal Institute of Technology and Jadavpur University, India

*Reference Material for Assessing Forensic SIM Tools*

Wayne Jansen, Aurelien Delaitre - National Institute of Standards and Technology, Canada

15:00–15:30pm

**Afternoon Break**

15:30–17:00pm

**Session 7: Information Technology (Con't)**

**Moderator:** Mr. Milos Klima, Czech Republic

*Cooperating Systems for Global Intrusion Detection & Tolerance*

Amel Meddeb-Makhlouf, Yacine Djemaiel, Noureddine Boudriga  
– Lab.CNAS, SUPCOM, Tunisia

*Network Intrusion Detection Technology & Virus Protection*

Toshihiko Kamon - National Police Agency, Japan

*An Efficient Authenticated Group Key Agreement Protocol*

Dr. Yong-Zhong HE, Zhan Han - Beijing Jiaotong University, China

*IP Traceback by Packet Marking Method with Bloom Filters*

Hosoi Takurou - The University of Tokyo, Japan

18:00-18:30pm

**Transportation to the Annual Carnahan Banquet**

Canadian Aviation Museum

18:30-19:30pm

**Refreshments And Self Guided Tour Of The Museum**

19:30-21:30pm

**Annual Carnahan Banquet**

**Thursday October 11, 2007**

08:30-12:00pm

**Exhibits Open**

08:30-10:00am

**Session 8: Video Surveillance Systems**

**Moderator:** Dr. Adrian Schwaninger, Switzerland

*The Use of Thermal Imagery with Video Motion Detection Systems at Her Majesty's Prison*

Raj Chowdhury - Home Office Scientific Development Branch (HOSDB), UK

*Can CCTV Reliably Detect Gun Crime?*

Iain Darker, Alastair Gale, Leila Ward, Anastassia Blechko - University of Loughborough, UK

*Threat Image Projection in CCTV*

Nicola Thomas, Bob Baker - Home Office Scientific Development Branch, UK

*An Efficient Face Identification Method in a Transformed Domain*

Marcos Faundez-Zanuy, Virginia Espinosa-Duró, Juan Antonio Ortega - Technical University of Catalonia, Spain

10:00-10:30am

**Morning Break**

10:30-12:00pm

**Session 9: Security & Detection Systems**

**Moderator:** Dr. G. Dan Smith, USA

*A Neutron Based Vehicle Borne Improvised Explosive Device Detection System*

D. Koltick, Y. Kim, S. McConchie, I. Novikov - Purdue University, USA

*Detection of Terrorist Threats in Air Passenger Luggage: Expertise Development*

Xi Liu, Alastair Gale, Tao Song - University of Loughborough, UK

*License Plate Detection & Recognition Using a Dual-Camera Module in a Large Space*

Chin-Chuan Han, Cheng-Ta Hsieh, Gang-Feng Ho, Chang-Lung Tsai, Kuo-Chin Fan - National United University, Taiwan

*Experimental Verification of a Posteriori Quality Enhancement of Security Images*

Milos Klima, Karel Fliegel, Jan Svihlik - Czech Technical University in Prague, Czech Republic

*CARNAHAN CONFERENCE ON SECURITY TECHNOLOGY*

12:00–12:15pm

**Final Remarks**

12:30–16:00pm

**Afternoon Tours (Optional)**

Includes transportation and lunch

## Back-Up Papers

*Investigating Training and Transfer Effects Resulting from  
Recurrent CBT of X-Ray Image Interpretation*

Saskia Koller, Diana Hardmeier, Stefan Michel,  
Dr. Adrian Schwaninger - University of Zurich, Switzerland

*On-Line Signature Verification by Dynamic Time Warping and  
Gaussian Mixture Models*

Oscar Miguel-Hurtado, Luis Mengibar-Pozo, Michael G. Lorenz,  
Judith Liu-Jimenez - University Carlos III of Madrid, Spain

*Secure Routing Protocol for Wireless Sensor Networks - Overview  
and Analysis*

Hiren Kumar Deva Sarma, Avijit Kar - Manipal Institute of Technol-  
ogy and Jadavpur University, India

*An Image Quality Assessment Method based on HVS*

Wu Wei - Center of Aviation Safety Technology CAAC, Beijing,  
China

*Open Surveillance: Service-Oriented Architecture (SOA) to Inte-  
grate Security Systems and Processes*

Prof. Stephané Gagnon - Université de Québec en Outaouais,  
Canada



**IEEE INTERNATIONAL CARNAHAN CONFERENCE  
ON SECURITY TECHNOLOGY 2007  
c/o Senstar-Stellar Corp.  
119 John Cavanaugh Drive  
Carp, Ontario K0A 1L0**