



9th International Conference on FRONTIERS OF PLASMA PHYSICS AND TECHNOLOGY (FPPT-9)

8-12 April 2019, Colombo area, Sri Lanka
Hosted by University of Kelaniya, Dalugama, Kelaniya 11600, Sri Lanka

Theme: Promoting sustainable research and technology in developing countries through international cooperation

Conference directors: Tara Desai (Chair, FPPT-9) and P.V. Patil.

National Organizing Committee: M.W.J.M. Samaranayake (Chair), K.R. Koswattage (Co-chair), K.M.D. Jayathilaka and A.R. Gamini Kumarasinghe.

International Advisory Committee: R. Fedosejevs (Chair, Canada), F. Beg (USA), V. Fortov (Russia), Yu Gu (PR China), K.A.K.D.D.D. Jayasuriya (Sri Lanka), B. Sinha (India) and L. Soto (Chile).

International Scientific Committee: D. D. Hoffmann (Chair, Germany), L. Cao (PR China), M. N. Kaumal (Sri Lanka), H. Sakagami (Japan) and B. Sharkov (Germany).

Conference is organised in cooperation with: International Atomic Energy Agency - IAEA, Vienna (Austria), International Centre for Theoretical Physics-ICTP, Trieste (Italy), Instituto de Fusión Nuclear, Madrid (Spain), Int. J. Laser and particles beams (UK), Kelaniya University, Kelaniya (Sri Lanka), Universidad Politécnica de Madrid, Madrid (Spain), Technical University, Darmstadt (Germany).

Purpose: The 9th International Conference on the Frontiers of Plasma Physics and Technology (FPPT-9) is being organized in Sri Lanka during 8-12 April 2019. Earlier eight conferences in the series were held in India (Bangalore-2002 and Goa-2005), Thailand (Bangkok-2007), Nepal (Kathmandu-2009), Singapore (2011), Botswana (Gaborone-2013), India (Kochi-2015) and Chile (Viña del Mar-2017). Success of the preceding conferences in Asia, Africa and Latin America has given us a deep satisfaction and encouragement to further our mission.

Mission of the FPPT series in organizing the conferences in different developing countries has been to provide an opportunity to local, young and enthusiastic researchers to have a close interaction with international experts and acquaint with the latest research areas. The real challenge is to achieve the goal in a meaningful and significant way to feed the intellectual young minds budding in developing countries with limited resources and to position them in a global scenario.

International cooperation has a crucial role to play in enhancing parity linking the developing and developed countries. We are trying to tackle this problem within our capability with the help of likeminded international experts in Plasma Physics.

The enthusiasm, endeavour and accomplishment of the FPPT series team has been well admired for the past 18 years by the delegates from developing and developed countries including the sponsors.

Thematic areas and topics covered but not restricted to: Emphasis of the conference will be on all the frontier topics of plasma physics and technologies and classified in the following three tracks but not limited to.

Track I. Fundamental plasmas: Astrophysical, cosmic and space plasmas, condensed and extreme state matter, high energy density matter, laboratory astrophysical, planetary, supernova, turbulent plasmas, physics of natural disasters, etc.

Track II. Advances in Nuclear Energy: Magnetically confined plasmas, inertial fusion plasmas, nuclear physics under transient state, recent progress in fusion studies, target and reactor physics, unconventional energy sources, z pinch, hybrid (fission plus fusion) reactors, etc.

Track III. Innovative trends in applications and technologies: Technological innovations leading to newer applications, Generation of novel plasma, neutron, laser and x-radiation sources, advances in particle /photon acceleration, progress in nanotechnologies, laser-plasma interaction, development of high accuracy diagnostics, applications in biology, chemistry, health, industries, safety, climate and environment, physics of natural disasters and management, present and future of nuclear waste management, etc.

There will be keynote, plenary, invited, oral lectures and poster sessions.

Preliminary list of the confirmed speakers include: A. Bartnik (Poland), Y. Baturin (Russia), F. Beg (USA), J. Bizarro (Portugal), A. Bret (Spain), L. Cao (PR China), U. Cvelbar (Slovenia), T. Donné (Germany), Z. Fan (PR China), R. Fedosejevs (Canada), V. Fortov (Russia), A. Fukuyama (Japan), D. Graves (USA), F. Haas (Brazil), D. Hoffmann (Germany), P. Jain (Botswana), D. Jaroszynski (UK), C. Kuranz (USA), K. R. Koswattage (Sri Lanka), W. Kraeft (Germany), M. Masek (Czech Republic), J.T. Mendonca (Portugal), P. Mishra (India), W. J. Miloch (Norway), B. Nagler (USA), T. Ozaki (Canada), F. Pegoraro (Italy), M. Perlado (Spain), R. Piriz (Spain), A. Ravasio (France), C. Riconda (France), H. Sakagami (Japan), B. Sharkov (Germany), B. Sinha (India), E. Son (Russia), V. Stancalie (Romania), C. Stehle (France), G. Throumoulopoulos (Greece), S. Vinko (UK), R. Walter (USA), B. Zelenar (Russia) etc.

Abstract format: Paper size: Standard, 21 cm × 29.7 cm (A4). Page set-up: Margins: top 2.5 cm; bottom 2.5 cm; left/right 2.5 cm. Title of the abstract in capital letters, bold, centred using Times new roman with font size 14. Leave 2 line spaces. Authors name in font size 12 and centred. Leave 1 line spaces. Institute's name in font size 10 and centred. 2 line spaces before commencing the abstract with font size 12 (justified). Text size should be within 160 x 210 mm with single spacing. References if any should be given in Arabic number in square bracket. Please provide Address, Fax number and e-mail of the corresponding author at the end of the abstract. Kindly prepare the abstract as per the guidelines in editable MS Word or equivalent software for the ease of necessary editorial work. All the abstracts will be peer reviewed under the supervision of scientific program committee.

Abstract Submission: One page abstract to be submitted electronically to the conference Secretary prior to 15th Nov. 2018 and invited speakers are requested to submit the abstract of their talk not later than Dec. 15, 2018 to the conference secretary on: office@fpptseries.org

Forth coming important dates:

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| ● Preliminary registration | Nov. 01, 2018 |
| ● Abstract submission | Nov. 15, 2018 |
| ● Author notification on the abstract | Dec. 15, 2018 |
| ● Request for financial support* | Dec. 20, 2018 |
| ● Early registration fee (Euro 500, details will follow) | Jan. 10, 2019 |
| ● Information on grant to the applicants | Jan. 25, 2019 |
| ● Final announcement and scientific programme | Mar. 01, 2019 |
| ● Late reg. fee Euro 550 cash / TC on desk | Apr. 08, 2019 |
| ● Submission of presentations for the conference proceeding on the desk | Apr. 08, 2019 |

*Applicable to young researchers from developing countries. Application should be made in the appended prescribed form along with a letter of recommendation from the supervisor.

Conference registration fee: Conference is self-financed. Delegates are requested to make their own financial arrangement.

International Delegates

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|--------------------------|------------------------------|
| ● Early Registration | : Euro 500/ |
| ● Late Registration | : Euro 550/ |
| ● International students | : Euro 300/ |
| ● Sri Lankan Delegates | : Euro 450 equivalent in LKR |
| ● Sri Lankan students | : Euro 250 equivalent in LKR |

Registration fee covers attendance to all the sessions, conference material, daily two coffee breaks during the conference, welcome reception, conference banquet.

Financial assistance: Conference is self-financed and funds are limited. However, partial travel grants or living expenses to a few deserving participants from the developing countries may be provided. Young aspirants requiring such grant may send their request on the enclosed prescribed form to director@fpptseries.org before Dec. 20, 2018.

Conference venue and accommodation: Organizers are making an effort in finalizing a suitable conference venue and accommodation which will be communicated later.

Visa to Sri Lanka: Visitors to Sri Lanka must obtain an Electronic Travel Authorization (ETA) prior to/ or on arrival. All visitors must hold a passport valid for 6 months. Delegates are requested to apply online via the official Sri Lanka government site <http://eta.gov.lk/> Delegates and accompanying persons requiring additional information should contact Prof. Kaveenga Rasika Koswattage, email: koswattagekr@appsc.sab.ac.lk

Sri Lanka Time zone: Sri Lanka is 3 and half hours ahead of CEST (DST) in April, i.e. 5 and half hours ahead of GMT (UTC).

Climate: The climate is tropical and warm due to the moderating effects of ocean winds. The average high is 32°C and 25°C low in Colombo region, and evenings are pleasant with light clothes. A waterproof top is advised to avoid likely precipitation. The sea temperature is lovely at 30°C while humidity is very high. A high UV level requires sun cream.

Banking in Sri Lanka: Banking system is modern and easily accessible. Credit and debit cards are widely accepted in Sri Lanka even in smaller towns. Visa and Master Card are the most commonly accepted cards. Currency exchange on Airport exchange counter and at an ATM is possible for major currencies. ATMs are common and most of them work with Visa (Plus), Master Card (Cirrus and Maestro). Remember to let your bank know the dates when you will be abroad if necessary. At present, 1-US dollar is approximately 180 Sri Lankan rupees (LKR). Travellers' cheques rarely have attractive rates in Sri Lanka. The limit of bringing or taking out of LKR is 5,000.

General information about Sri Lanka: Sri Lanka is an island country in south Asia located in the Indian Ocean. The word "Sri" carries honour and social standing - akin to "majestic" or "royal", where as "Lanka" means "island". Sri Lankans are called as Sinhalese meaning 'of Lions' in Sanskrit. They are an Indo-Aryan speaking ethnic group native to Sri Lanka and descendants of settlers who came to the island in 543 BCE from Sinhapura, in India led by Prince Vijaya. They constitute about 75% of the Sri Lankan population and are predominantly Theravada-Buddhists and a small percentage along the coast follow branches of Christianity although the present society is a culmination of many cultures, languages and ethnicities. Sri Lanka's documented history spans over 3,000 years.

Sri Lanka was colonised first by Portuguese in 1517, by Dutch in 1660 and later by British in 1796. With the fall of Kandyan Kingdom on 14 February 1815, British ended 2300 years of Sinhalese monarchy rule. Finally Sri Lanka proclaimed independence on 4 February 1948 and follows a Non-Aligned Foreign Policy. It is the oldest democracy in Asia.

Sri Lanka is one of the 25 biodiversity hotspots in the world and it has the highest biodiversity density in Asia and home to a wide range of native species such as Asian elephants, leopards, sloth bears etc. Its diverse attractions include; citadel Sigiriya, ancient capital Anuradhapura, Dambulla Cave Temple, Yala National Park, Ancient City Polonnaruwa and many other 2000 years old ruins.

Present population is about 20 million and official languages are Sinhala, Tamil and English. Its geographic location and deep harbours have made it strategically important from the time of ancient Silk Route to modern Maritime Route; it is a melting pot of culture and cuisine. Sri Lankans are very friendly and hospitable. A trip to Sri Lanka is a great choice; a delight during every visit. For an exciting visit please check: <http://www.srilanka.travel>

Contact details: Web site: <https://www.fpptseries.org>

- Prof. Tara Desai (Conference Director): director@fpptseries.org
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- Prof. Janaki Samaranayake (Chair, NOC): janaki@kln.ac.lk
- Prof. Kaveenga Rasika Koswattage (Co-chair): koswattagekr@appsc.sab.ac.lk
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Fax: +49 32223 946346

Looking forward to meeting you in Sri Lanka

**9th International Conference on
FRONTIERS OF PLASMA PHYSICS AND TECHNOLOGY (FPPT-9)**

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Hosted by University of Kelaniya, Dalugama, Kelaniya 11600, Sri Lanka**

Registration Form

(Last date for the receipt of the registration form is Nov. 01, 2018)

1. Name of the participant

- Family name:
- First name:
- Middle name:
- Title (Prof. Dr. Mr Ms.)

2. Nationality:

3. Address for Correspondence:

- Institute address:
- Fax:
- Tel:
- E-mail:

4. Gender (Male / Female):

5. Title of the Abstract (Tentative):

6. Track of the Topic I/II/III:

7. Date of payment of registration fee:

8. Name(s) of the accompanying person(s):

Kindly send the registration form to the conference secretary, office@fpptseries.org

Further announcement will be sent to all the registered participants.

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Financial request form

Applicable only for young researchers from developing countries

(Last date for the receipt of the form is Dec. 20, 2018)

1. Name of the participant

- Family name:
- First name:
- Middle name:

2. Nationality:

3. Address for Correspondence:

- Institute address:
- Fax:
- Tel:
- E-mail:

4. Date of Birth:

5. Gender (Male / Female):

6. Title of the Abstract:

7. Track of the Topic I/II/III:

8. Date of payment of registration fee:

9. Financial request for

- a. Travel: Full / Partial
- b. Living: Full / Partial
- c. Registration fee: Full / Partial

Due to very limited available resources only deserving requests shall be considered for partial support for either a, or b or c.

Kindly send the finance request form to director@fpptseries.org
