



The Abdus Salam
International Centre for Theoretical Physics



Joint ICTP-TWAS Workshop on Entrepreneurship for Physicists and Engineers from Developing Countries

Organizer(s): Directors: Surya Raghu, Dipali Bhatt-Chauhan, Joseph Niemela
Trieste - Italy, 23 - 27 April 2012

Venue: Leonardo da Vinci Building Main Lecture Hall

Programme

Monday 23 April 2012 (Room:Leonardo da Vinci Building Main Lecture Hall)

Chairperson: Morning: Beth Taylor - Afternoon: Claudio Tuniz

23 April 2012

- 08:30 - 10:00** (Room: Leonardo da Vinci Building, Lobby)
--- Registration ---
All Speakers and Participants are required to complete registration formalities
- 10:00 - 10:45** **Dipali Bhatt-Chauhan (IOP), Surya Raghu (Advanced Fluidics LLC), Joseph Niemela (ICTP), Beth Taylor (IOP), Peter McGrath (TWAS Programmes Officer)**
Welcome Remarks
Brief introduction of Speakers and Organizers. Workshop objectives. 15-second participant self-introductions.
- 10:45 - 11:00** (Room: Leonardo da Vinci Building, Lobby)
--- Coffee Break ---
- 11:00 - 12:30** **Duncan Moore / University of Rochester, New York, USA**
Opportunities and barriers for commercialization
- 12:30 - 14:00** --- Lunch Break ---
- 14:00 - 15:00** **Dawood Parker / Melys Diagnostics Limited, UK**
Scientists and Engineers as Entrepreneurs

15:00 - 16:30 **Richard Brooks / *FD Solutions, London, UK***
Making a business case of an idea - a classroom exercise

16:30 - 17:00 (Room: Leonardo da Vinci Building, Lobby)
--- Coffee Break ---

17:00 - 18:00 **All Speakers**
Group Project and Open Forum

18:00 - 18:15 **Surya Raghu, Dipali Bhatt-Chauhan**
Wrap-up for Day 1

Tuesday, 24 April 2012 (Room:Leonardo da Vinci Building Main Lecture Hall)
Chairperson: Morning: D. Bhatt-Chauhan - Afternoon: D. Moore

08:30 - 09:30 **Beth Taylor / *IOP, London, UK***
Effective communication skills for entrepreneurs

09:30 - 10:45 **Duncan Moore / *University of Rochester, New York, USA***
Investors' perspectives on start-up funding

10:45 - 11:00 (Room: Leonardo da Vinci Building, Lobby)
--- Coffee Break ---

11:00 - 12:30 **Yumiko Hamano / *WIPO, Geneva, Switzerland***
Concept of intellectual property and its significance for starting a high-tech company
IP: Patents, trade secrets and trademarks; Who is the inventor and who is not?; Who owns the rights to an invention - you or your organization/company?; Publications vs. patents.

12:35 - 13:50 --- Lunch Break ---

13:50 - 14:00 --- Group Photo ---

14:00 - 15:15 **Yumiko Hamano, Rakesh Roshan, Surya Raghu**
Classroom exercise on patenting an idea, legal documents and product launch

15:15 - 16:30 **Richard Brooks / *FD Solutions, London, UK***
Business plan fundamentals
Introduction to financial terminology, short quiz on financial terminology. Suggested content for scientific business plan.

16:30 - 16:45 (Room: Leonardo da Vinci Building, Lobby)
--- Coffee Break ---

16:45 - 17:45 **Stephen Taylor / *Strategic Technology Transfer, AREA Science Park, Trieste***
Technology trend forecasting and opportunity assessment

17:45 - 18:15 **All Speakers**
Project updates from groups and Open Forum

18:15 - 18:30 **Dipali Bhatt-Chauhan, Surya Raghu**
Wrap-up for Day 2

Wednesday 25 April 2012 (Room:Leonardo da Vinci Building Main Lecture Hall)

Chairperson: Morning: Dawood Parker - Afternoon: Yumiko Hamano

25 April 2012

- 08:30 - 09:45** **Surya Raghu** / *Advanced Fluidics LLC, Ellicott City, USA*
Taking the inventions to market
Evaluating the Technology Readiness Level (TRL) of an invention for commercialization, processes involved and estimates of time required to develop a product from an invention.
- 09:45 - 11:00** **Anthony Bunn** / *MRC Innovation Centre, Cape Town, South Africa*
Commercializing your innovation
Decision to form your own start-up, license or sell your technology? How does a single inventor/university team/small company make these decisions? Who is the customer? How viable is the technology and how receptive is the market?
- 11:00 - 11:15** (Room: Leonardo da Vinci Building, Lobby)
--- Coffee Break ---
- 11:15 - 12:15** **Richard Brooks** / *FD Solutions, London, UK*
Start-up financing options for an entrepreneur
- 12:15 - 13:30** --- Lunch Break ---
- 13:30 - 14:30** **Rakesh Roshan** / *Isis Innovation Ltd., Oxford, UK*
Inventions to start-ups
How it is done at Oxford and what experience can be translated to developing countries
- 14:30 - 15:30** **Anthony Bunn, Dawood Parker**
Lessons from start-ups and spin-offs
30 minutes each
- 15:30 - 15:45** (Room: Leonardo da Vinci Building, Lobby)
--- Coffee Break ---
- 15:45 - 16:45** **Participants (TBD)**
Case Studies
- 16:45 - 17:45** **All Speakers and Participants**
Project updates and Open Forum
- 17:45 - 18:00** **Dipali Bhatt-Chauhan, Surya Raghu**
Wrap-up for Day 3

Thursday 26 April 2012 (Room:Leonardo da Vinci Building Main Lecture Hall)

Chairperson: Morning: D. Bhatt-Chauhan - Afternoon: R. Brooks

26 April 2012

- 09:00 - 10:00** **Duncan Moore** / *University of Rochester, New York, USA*
Marketing
- 10:00 - 10:30** (Room: Leonardo da Vinci Building, Lobby)
--- Coffee Break ---
- 10:30 - 11:30** **Richard Brooks** / *FD Solutions, London, UK*
Social Media for Entrepreneurship

- 11:30 - 12:30** **Rakesh Roshan / Isis Innovation Ltd., Oxford, UK**
Open Innovation and Entrepreneurship for Sustainability
- 12:30 - 14:00** --- Lunch Break ---
- 14:00 - 15:00** **Surya Raghu / Advanced Fluidics LLC, Ellicott City, USA**
Key decisions in starting a company
- 15:00 - 17:00** **Project Work**
All Speakers available for consultation on projects
15.30-17.00: Introducing Entrepreneurship and Business Skills in Science Curriculum (Optional) (Dipali Bhatt-Chauhan & Surya Raghu)
- 15:15 - 15:30** --- Coffee Break ---

Friday 27 April 2012 (Room:Leonardo da Vinci Building Main Lecture Hall)
Chairperson: Joseph Niemela

27 April 2012

- 09:00 - 09:30** **Panel / All Speakers and Local Representatives**
Participants' idea/business plan presentations to a panel of experts for critique
Introduction of the panel of judges
- 09:30 - 11:00** **Session 1, Groups 1, 2 and 3**
- 11:00 - 11:15** (Room: Leonardo da Vinci Building, Lobby)
--- Coffee Break ---
- 11:15 - 12:45** **Session 2, Groups 4, 5 and 6**
- 12:45 - 14:00** --- Lunch Break ---
- 14:00 - 15:00** **Session 3, Groups 7 and 8**
- 15:00 - 15:30** **All panelists, all participants**
Feedback to the participants on their plans. Feedback from participants to the organizers (written and informal)
Moderator: Richard Brooks
- 15:30 - 16:00** **Dipali Bhatt-Chauhan, Surya Raghu, Joseph Niemela & Peter McGrath**
Concluding Remarks
- 16:00 - 16:30** **Distribution of Certificates after handing out the written evaluations**