

2nd WINTER SCHOOL IN SPORTS ENGINEERING
WINTER SPORTS EQUIPMENT EVALUATION
for SAFETY & PERFORMANCE
4th – 9th MARCH 2012
San Vito di Cadore – Cortina d’Ampezzo (Italy)

DESCRIPTION:

Following the success of the first edition, the University of Padova, Chemnitz University of Technology & ISEA (International Sports Engineering Association) are proud to announce the 2nd Winter School in Sports Engineering that will be held in the valley of Cortina d’Ampezzo (Italy), in the heart of the Dolomites.

The School will focus on **Winter Sports Equipment Evaluation for Safety and Performance**, providing participants with the opportunity to enhance their knowledge and expertise on **ski, snowboard, cross country ski and other Winter sport disciplines**.

The School will combine theoretical lectures, read by expert Professors active in the field of Sports Engineering, technical sessions with a hands-on approach to the application and use of sensors and systems for Winter sports equipments, and field test sessions on the slopes, where equipments and data collection systems will be used in the snow, taking advantage of the seasonal snow and the unique environment of Cortina d’Ampezzo’s valley.



ORGANIZING COMMITTEE:

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Prof. Veit Senner (TUM Munchen)

Sports Equipment and Materials Department
Technical University Munchen (Germany)

SCHOOL LOCATION:

The Winter School will be held in San Vito di Cadore (Italy), a Winter resort in the Dolomites, at about 10 km from Cortina d'Ampezzo.



TRAINING LOCATION and FACILITIES:

The School will be hosted in the **Study Centre for Alpine Environment of the University of Padova**. The Centre has a long tradition in research and teaching, initially focused on Forestry and Ecology, and hosts courses all year long.

At the Centre a large lecture hall with multimedia equipment, a computer lab with internet connection, as well as additional rooms will be at the students' disposal for lectures, field data analysis, report preparation and practical sessions involving equipment and instrumentation. (<http://www.tesaf.unipd.it/Sanvito/home.asp>)



The Centre



The Main Lecture Hall



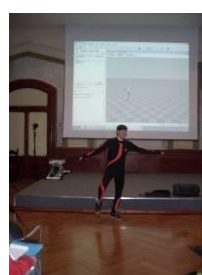
The PC Lab



Shots from the 2011 Winter School...

ACCOMMODATION for Students and Teachers :

Students and teachers will be hosted at **Hotel Park des Dolomites** (<http://www.parkdesdolomites.it>) in San Vito di Cadore (Italy). Breakfast and dinner will be served at the Hotel, which is 5 minutes' walk from the Training Centre.



Students will be hosted in shared rooms (2-4 beds) with toilet, separated for males and females. The single room option will be possible by adding +20% to the shared room costs.

COSTS and REGISTRATION

The course **fee for ISEA students** is **250 Euro**. It will cover the accommodation costs from March 4th to 9th (5 nights, breakfast and dinner included) at Hotel Park des Dolomites. (The fee is **270 Euro for non-ISEA students**: 1 yr membership included)

The course **fee for Professionals or Industrial representatives** is **500 Euro**. It will include the accommodation costs from March 4th to 9th (5 nights, breakfast and dinner included) at Hotel Park des Dolomites.

PLEASE NOTE:

- A special price for the daily ski-pass will be agreed with local sponsors (www.skiareasanvito.com).
- Ski equipment (boots, skis, snowboards) will be provided by NORDICA & BLIZZARD (www.nordica.com, www.blizzard.com) upon the participants' notification of their own foot size, height, mass and skill level (Beginner/Intermediate/Expert).
- Snowboard group lessons can be booked on the first three days and will be given by an expert instructor from company *6punto9* (www.6punto9.com).

- Travel costs are not included in the fee. A public bus shuttle from Venice Airport can be booked if required.
- For additional nights at Hotel Park des Dolomites (48 Euro per night, shared room, breakfast and dinner included), please notify your request while applying for the Winter School and add the corresponding amount to the fee.

ACCOMMODATION AND TRAVEL INFORMATION:

For further information about the course, travel and accommodation, please contact Dr. Nicola Petrone (University of Padova):

E-mail: nicola.petrone@unipd.it

SPONSORS

- The Winter School will be supported by:



UNIVERSITÀ
DEGLI STUDI
DI PADOVA



CHEMNITZ UNIVERSITY OF
TECHNOLOGY



Technical Sponsors:



Sensori,
strumenti
e sistemi
di misura



Sponsorships from Companies

Two sponsorship models will be offered to companies:

- Golden Sponsor 1000 EUR
- Silver Sponsor 500 EUR

Sponsoring partners will be presented at the Winter School website and be mentioned in official publications about the Winter School.

Golden Sponsors will be given the opportunity to give a presentation of app. 30 min. about winter sport related technology in their products.

WINTER SCHOOL PROGRAMME: (to be confirmed)

	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
MORNING	Arrival	Skiing Session on the Slopes Equipment Description and Classification	Test Session 1 on the Slopes (Groups) 1. <u>SKI</u> 2. <u>BOOTS</u> 3. <u>BINDINGS</u> 4. <u>BOARDS</u> 5. <u>EVALUATION</u>	Test Session 2 on the Slopes (Groups) 1. <u>SKI</u> 2. <u>BOOTS</u> 3. <u>BINDINGS</u> 4. <u>BOARDS</u> 5. <u>EVALUATION</u>	Group Work: Preparation of the Group Project Results	Ski & Snowboard competition Free skiing
AFTERNOON	WELCOME PARTY Dinner	Teaching Session 1 Lecture <ul style="list-style-type: none"> ▪ <i>Ski-snow interface</i> (Groups) <ul style="list-style-type: none"> ▪ <i>Presentation of Group Projects</i> ▪ <i>Group Preparation of first test session</i> 	Teaching Session 2 Lecture <ul style="list-style-type: none"> ▪ <i>Ski-boot technology</i> Field Data Analysis (Groups) <ul style="list-style-type: none"> ▪ <i>Analysis of the collected data</i> 	Teaching Session 3 Lecture <ul style="list-style-type: none"> ▪ <i>Ski-snowboard technology</i> Field Data Analysis (Groups) <ul style="list-style-type: none"> ▪ <i>Analysis of the collected data</i> 	<ul style="list-style-type: none"> ▪ Conclusive Workshop: Presentation of Group Project Results	Free skiing FAREWELL PARTY
EVENING	Social Evening	Technical Discussion	Social Evening	Technical Discussion	FAREWELL PARTY	

TEACHING SESSIONS:

Time spent in the classroom: teachers will give presentations about their expertise related to Winter Sport equipments. Teaching session will include:

Lectures

Equipment Design, Winter Sport Materials, Field Data Collection Techniques, Winter Sport Biomechanics, Inertial sensors for Field Motion Capture.

Techniques

Experimental Methods (Ski-Snowboard Load Cells, Pedar Insoles, EMG, Ski – Boot – Snowboards Comparative Evaluation, Xsens Sensors)

Field data Analysis

Upload of the data collected during the field tests and preliminary analysis in the Computer Lab: teachers will assist in the re-analysis of the data collected on the field.

TEST SESSIONS:

Time spent on the slopes, divided into groups. Field data collection and equipment comparative evaluation.

(Ski-snowboard load cells, Pedar Insoles, EMG, Xsens sensors...)

(Ski - Boot - Snowboards comparative evaluation..)

HOW TO GET THERE

Home :: Contacts :: Short presentation :: Forest ecology field stations

By Car

From Venezia-Mestre, take motorway A27, direction Belluno, until the exit (Pian di Vedoia). Then take the SS51, direction Cortina d'Ampezzo (about 45 km).
Total distance 140 km, lasting about 2 hours.

By train/bus

From Venice or Padova take the train to Calalzo di Cadore. There take the bus to Cortina d'Ampezzo. Lasting at least 4 hours.



Italy - via F. Ossi, 41 - 32046 San Vito di Cadore (BL), phone +3904369311, fax +390436890048, email: ambiente.alpino@unipd.it



SKIAREA SAN VITO

Sconti ed agevolazioni
Discount prices and facilities

IMPORTO SKIPASS	ALTA STAGIONE	BASSA STAGIONE
Giornaliero Daily rate	€ 25,00	€ 22,00
Giornaliero ridotto Junior daily rate* *max. 15 anni e gruppi entro 15 giorni dal 1° maggio 2011	€ 20,00	€ 17,00
Matutino Half day (morning)	€ 20,00	€ 17,00
Pomeridiano Half day (afternoon)	€ 20,00	€ 17,00

WI-FI SULLE PISTE!
WiFi ON SKI SLOPES!
Tra la Baia Ciastel-Sogginova / Tamboras / Baia Sun Bar e Baia Donarè.
Per abbonamenti / to sign up:
LIFE WiFi di San Vito di Cadore
Tel. +39 0436 9119 - servizio@infodolomiti.it

Legenda / Legend

- 1 Scivolo Donarè / Skifitt Donarè
- 2 Soggiòva Tamboras / Chairlift Tamboras
- 3 Soggiòva S. Marco / Chairlift St. Marco
- 4 Pista Donarè / Ski slope Donarè
- 5 Pista Caprioli / Ski slope Caprioli
- 6 Pista Ciastel / Ski slope Ciastel
- 7 Pista Broccas / Ski slope Broccas
- 8 Pista Tamboras / Ski slope Tamboras
- 9 Pista Bianca / Ski slope Bianca
- 10 Pista Cino Menegus / Ski slope Cino Menegus
- 11 Pista Serpentina / Ski slope Serpentina
- 12 Parco Giochi / Playground
- 13 Campi Scuola principianti / Beginner's ski area
- 13 Baia Donarè (Half Inverno / Sea Inverno)
- 14 Ski Bar Tamboras (Half Inverno / Sea Inverno)
- 15 Rifugio Scottar (Half Inverno / Sea Inverno)
- 16 Baia Ciastel (Half Inverno / Sea Inverno)
- 17 Baia Sunbar (Half Inverno / Sea Inverno)
- 18 Rifugio Alpa di Seras (Half Inverno / Sea Inverno)
- 19 Rifugio Larin (Half Inverno / Sea Inverno)
- 20 Baia Prà Soffo (Half Inverno / Sea Inverno)

- ☐ Percorso Ciagge / Snowshoe routes
- ☐ Sci alpino / Ski mountaineering
- ☐ Pista di Fondo / Cross-country trails
- ☐ Passaggio / Walks
- ☐ Slittino / sled
- ☐ Facile / Easy
- Medio / Medium
- Difficile / Difficult
- ☐ Skibus / skibus
- ☐ Ufficio informazioni / Information office
- ☐ Ufficio Skipass / Skipass office

San Vito di Cadore: sciando al sole

Il comprensorio di San Vito di Cadore offre 20 km di piste di discesa che garantiscono la possibilità di praticare lo **SCI** e lo **SNOWBOARD**. La **SKI AREA** si trova in una posizione panoramica e soleggiata con svariati punti di ristoro, rifugi e baite dall'atmosfera calda ed accogliente.

San Vito di Cadore: skiing in the sunshine

The San Vito di Cadore ski resort offers 20 km of downhill pistes with amazing opportunities for **SKIING** and **SNOWBOARDING**. The **SKI AREA** is set in a delightfully sunny spot, with stunning views and plenty of places to recharge your batteries with drinks, snacks or meals in cosy, welcoming mountain refuges.



IMPIANTI SCOTER S.R.L.

San Vito di Cadore
Corso Italia, 23
Tel. +39 0436 800645
Fax +39 0436 800463
www.skiareasanvito.com

TARIFE SKIPASS

IMPORTO SKIPASS	ALTA STAGIONE	BASSA STAGIONE
Giornaliero Daily rate	€ 28,00	€ 25,00
Giornaliero ridotto Junior daily rate* *max. 15 anni e gruppi entro 15 giorni dal 1° maggio 2011	€ 22,00	€ 19,00
Matutino Half day (morning)	€ 22,00	€ 19,00
Pomeridiano Half day (afternoon)	€ 22,00	€ 19,00

*I biglietti di San Vito e Cortina sono collegati ed è possibile arrivare da Belluno, grazie per l'operatore di Skipass a Dolomiti Card, con i busper i percorsi di movimento hotel. The San Vito and Cortina ski areas are linked by an efficient railway service, two for Dolomiti Card holders, two for skippers from the mountain hotels.