

# SUMMER SCHOOL ON IMAGE PROCESSING

1993 – 2006

# SSIP – What is it for?

- to give lectures to the students interested in image processing and its applications,
- to have exercises in solving different interesting problems,
- to bring together young people and lecturers of the field.

# How to realise it ?

- Very good students
- Good organisers
- Interesting topics
- Computers
- 10-12 days
- Lot of money ?
- Infinitely many !
- Excellent !
- We have a lot !
- Not so bad.
- If it is necessary ...
- Almost nothing.

# Program of SSIP

- Lectures
- Team works
- Test
- Students' Session
- Social program

# Lectures

- About image processing (not research talks)
- During the mornings
- By the teachers of the participating universities
- Presentations are on the home page of SSIP  
/ Copies of the slides are available

# Team work

- International teams of 4 students
- Interesting projects with input data are available
- During the afternoons
- Presentation at the end of SSIP
- International jury
- Great prizes --)

# Test

- Simple questions from the talks
- 70 % or more – you are successful
- Certificate (recognition by several universities as an MSc or PhD course)

# Social Program

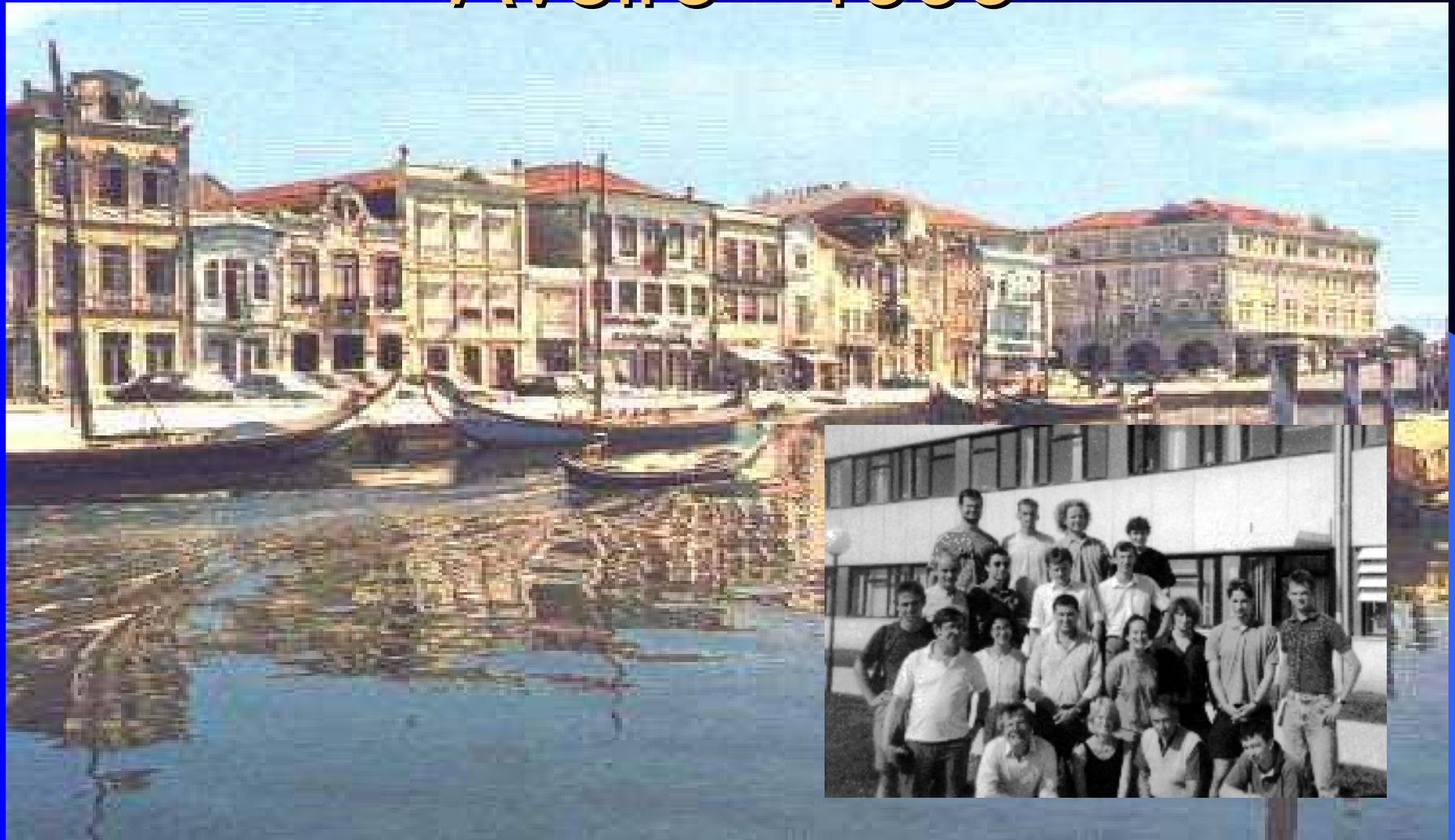
- Discussions during SSIP
- Closing dinner on the last day
- Excursion



# How did it start?

- TEMPUS SJEP 1991-1994
- Image Processing with Applications in Robotics and Medicine
- Participants:  
U. Szeged, UC London, Inst. G. Roussy (Paris), U. Aveiro, U. Ljubljana, U. Lodz

# Let's have a nice place – Aveiro - 1993



# Zooming ...



Andrew  
Todd-Pokropek

László  
Nyúl

# Szeged



Good, isn't it?

# Szeged – 1994



Marian  
Surma

Jay  
Udupa

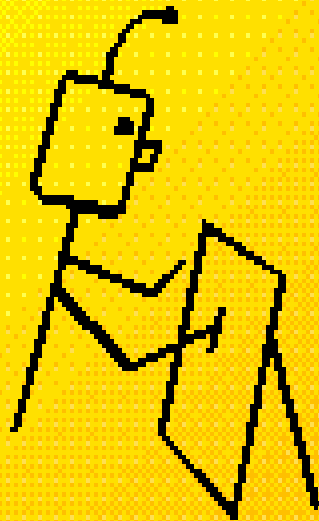
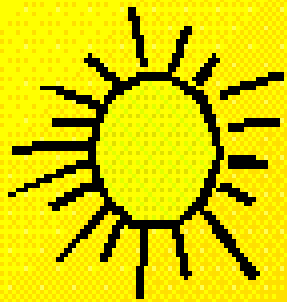
Attila  
Kuba

# Szeged – 1994

## Project 11:

- **11. User interface and game representation for 3-D GO.**
- **Input-** Creation of 'game' including GUI and rules! for extension of Japanese game GO to 3-D.
- **Output-** playable game Coding- as desired
- **Remarks-** Difficulty depends on project team

# Szeged - 1995



**SSIP'95**

**3rd Summer School  
in Image Processing  
Szeged, Hungary  
4-9 September 1995**

# Participants - 1995

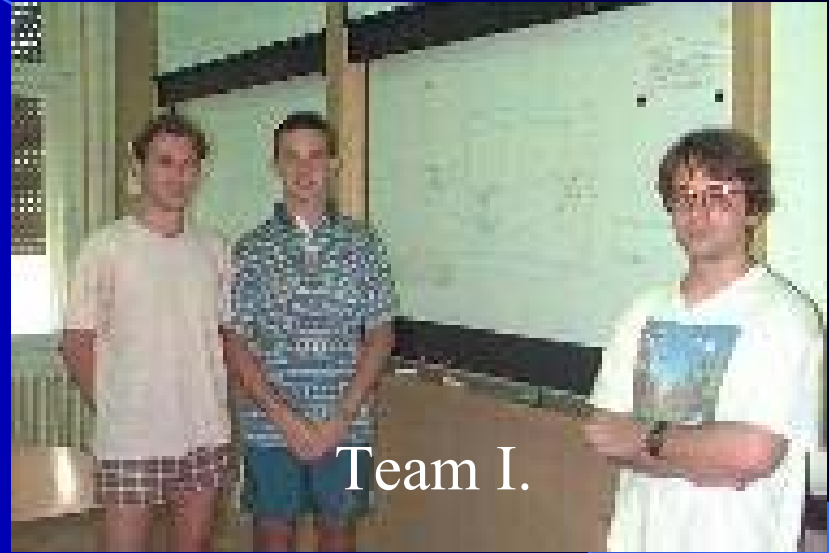




# Szeged - 1996



Andrew  
Todd-Pokropek



Team I.



Team II.

# Participants - 1996



András  
Hajdú

Judit  
Verestóy



István Marosi

# Szeged - 1997



# Two questions from the Test of 1997

Continue the series

10, 11, 12, 13, 14, 15, 16, 17, 20, 22, 24, 31,  
100, 121, 10000

Why can't you get a drink of Coca Cola in a  
Kentucky Fried Chicken?

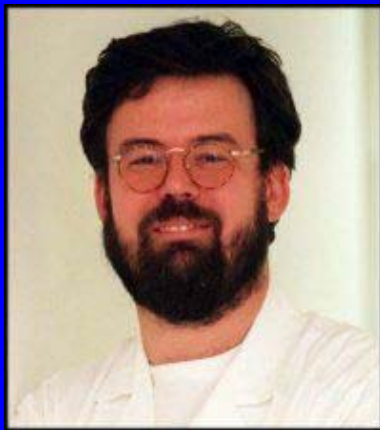
# Debrecen - 1998



Organiser:  
A. Fazekas

# Debrecen – 1998 - Lectures

- **Tuesday (14th of July)**
- **E. Sorantin: CAD in Mammography**



# Szeged - 1999



Antal  
Nagy  
organiser

Gabor T.  
Herman

# A Sunday in tanya in the puszta





# Zagreb - 2000



Organiser:  
S. Loncaric

# An Interesting Project

- Project: Simulation of throwing dice (input of real video images) to generate image from which score determined.
- **Team B Members:**
  - Ivan Ceskovic
  - Balázs Erdőhelyi
  - Kristijan Macek
  - Rafal Zyto

# 2001 Szeged



University of Szeged



László Nyúl



# Budapest 2002



Eötvös Loránd University



Dmitry  
Chetverikov

# An interesting view



# Timisoara - 2003

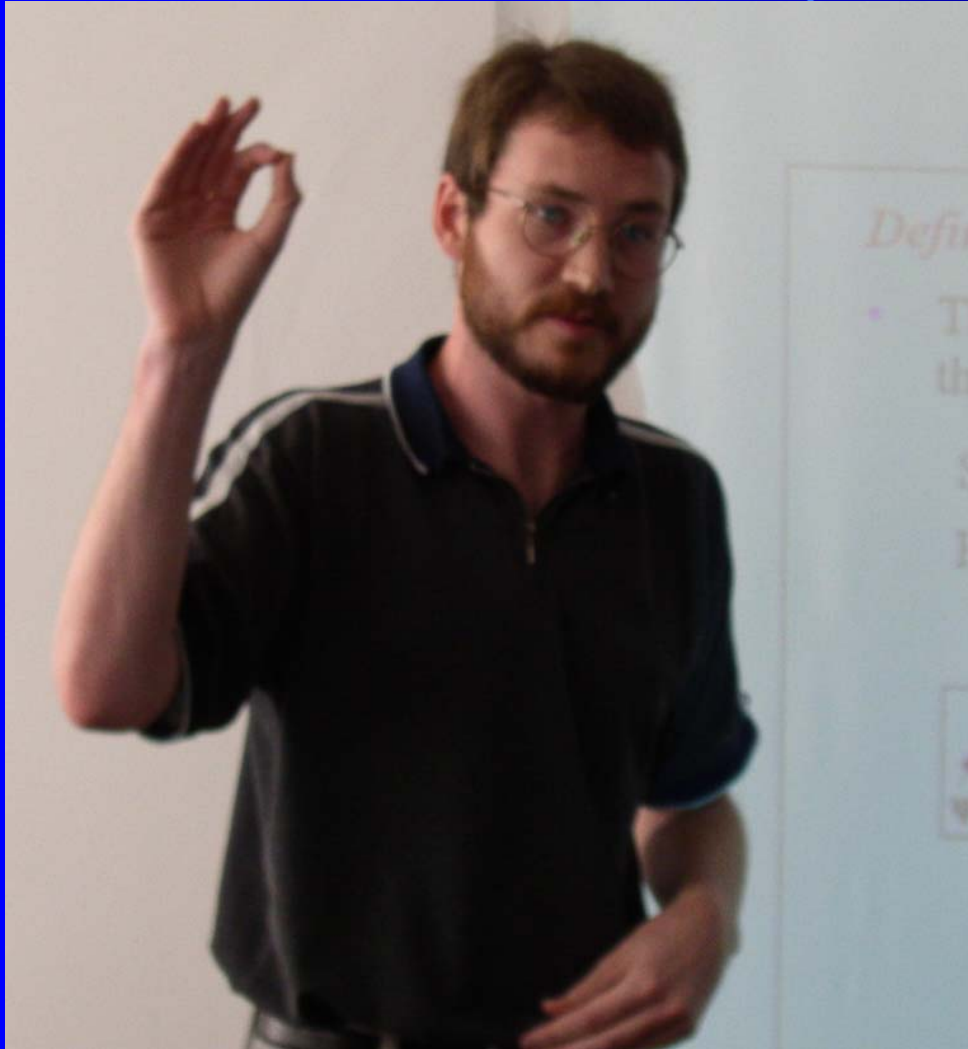


University of West Timisoara



Lucian Cucu

# Temesvár - 2003



Allan Hanbury

[Vienna University of Technology](#)



# Graz - 2004



Erich Sorantin



Medical University Graz

# Project 5 Traffic simulation

- Input: model of city street or highway map
- Aim: simulation of traffic flow, with intersection control
- Additional feature: driver performance-aggressive/ cautious behaviour
- Output: graphics of traffic flow+ traffic light control strategy

Note: Try to simulate a reasonable section of a town and not just a grid.

# Szeged - 2005



Kálmán Palágyi

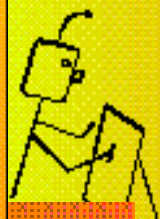


### SSIP'95

3rd Summer School  
in Image Processing  
Szeged, Hungary  
4-9 September 1995

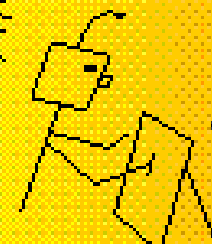
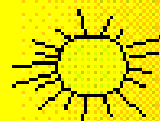
### SSIP'96

4th Summer School  
in Image Processing  
Szeged, Hungary



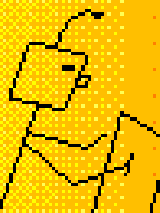
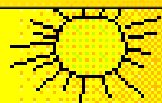
### SSIP'97

5th Summer School  
on Image Processing  
Szeged, Hungary  
14-19 July 1997



### SSIP'98

6th Summer School  
on Image Processing  
Debrecen



# SSIP 2006

14th Summer School on Image Processing  
29 June - 8 July 2006 • Szeged, Hungary

4-13 July 2002 • Budapest, Hungary

### SSIP 2003

11th Summer School on Image Processing  
3 - 12 July 2003 - Timișoara, Romania



### SSIP 2004

12th Summer School in Image Processing  
July 2004, Graz - Austria



### SSIP 2005

13th Summer School on Image Processing  
30 June - 9 July 2005 • Szeged, Hungary



# Small Statistics

Venue	Students	Lecturers	Countries
1993 Aveiro	17	3	5
1994 Szeged	36	11	9
1995 Szeged	22	12	5
1996 Szeged	38	10	7
1997 Szeged	36	10	9
1998 Debrecen	38	14	7
1999 Szeged	42	12	10
2000 Zagreb	33	14	10
2001 Szeged	46	21	14
2002 Budapest	36	15	10
2003 Timisoara	36	9	8
2004 Graz	36	24	11
2005 Szeged	32	9	16
2006 Szeged	33	12	12

# What we expect from you....

- To take part on SSIP during the whole period
  - to listen talks, to ask questions if you have,
  - to work in your team on the selected project,
  - to write the test.

# What you can expect from SSIP ...

- To learn more about image processing
  - to listen interesting talks,
  - to get some practice in understanding, modeling, solving, and applying image processing problems and methods,
  - to know some people from the field of image processing.

We wish you  
an interesting  
14th SSIP and a  
pleasant stay in  
Szeged