Presentation of research paper entitled

# "Research Based Pedagogical Tool (RBPT) to Teach Medicinal Plants at Undergraduate Level"

In

# XVIII IOSTE SYMPOSIUM FUTURE EDUCATIONAL CHALLENGES FROM SCIENCE & TECHNOLOGY PERSPECTIVES

## held during

AUGUST 13-17, 2018

at
Malmo University, Malmo, SWEDEN

### Convener

#### Anna Jobér

Chair of the Conference Committee
Assistant Professor
Faculty of Education and Society
Malmo University, Malmo, Sweden

#### Venue

City center Malmö university Niagara, Nordenskiöldsgatan 1,

### Presented by

# Dr. Dinesh Dayaramji Khedkar

Associate Professor
Department of Botany
Shri Shivaji Science College
Amravati – 444 603 (Maharashtra)





## To whom it may concern

It is with great honour that I hereby certify that Associate Professor Dr. **Dinesh D. Khedkar** at Shri Shivaji Science College, Shivaji Nagar, Amravati, Maharashtra, India is invited to present the research paper *Research Based Pedagogical Tool (RBPT)* to Teach Medicinal Plants at Undergraduate Level at the conference XVIII IOSTE Symposium 2018.

The theme of this international research conference is Future Educational Challenges from Science & Technology Perspectives. The conference will be held at Malmö University, Sweden, between Aug  $13^{\rm th}$  – Aug  $17^{\rm th}$  2018.

Please contact me if further information is required.

Malmö 2018-04-18

Anna Jobér

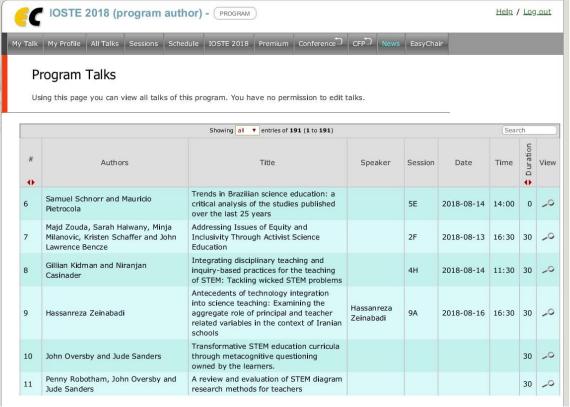
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Faculty of Education and Society

7/13/2018 Program Talks



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7/13/2018 Program Talks

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#	Authors	Title	Speaker	Session	Date	Time	Duration +	View	
110	Guaracira Gouvêa, Rosilene Gonçalves and Carmen Irene Correia de Oliveira	Technic as portrayed in Brazilian Physics Textbook's Images		9D	2018-08-16	16:30	30	_0	
113	Margaret Kit Yok Chan, Purna Bahdur Subbab, Siew Eng Ling, Pierre Clément and Kim Leong Lai	Preliminary Results on Bhutanese Teachers Conception of Evolution		3C	2018-08-14	09:00	30	_0	
114	Jeongwoo Park, Sun-Kyung Lee, Han Su Shim, Gyeong-Geon Lee and Myeong-Kyeong Shin	Characteristics of Participant Students' Modeling with the Blackbox Simulation Program and Their Epistemic Criteria		1B	2018-08-13	15:00	0	_0	
116	Dinesh Khedkar, Rajendra Shinde, Manjiri Bhave and Uma Chaurasiya	Research Based Pedagogical Tool (RBPT) to Teach Medicinal Plants at Undergraduate Level		1C	2018-08-13	15:00	0	_0	
117	Gerd Johansen	Differences and similarities between the knowledge practices in school science and vocational education	Gerd Johansen	8D	2018-08-16	11:00	30	_0	
118	Lena Hansson and Lotta Leden	Human aspects of science – for everyone? An analysis of "ordinary" science textbooks and textbooks adjusted for students in need of special education		5E	2018-08-14	14:00	0	_0	
119	Narendra Deshmukh	The Use of the Drawing Method for Eliciting Students' Ideas and Understanding in Life Science: Diagnostic Assessment Strategy for Teachers	Narendra Deshmukh	9F	2018-08-16	16:30	30	_0	
121	Ann-Marie Pendrill, Urban Eriksson, Lassana Ouattara, Moa Eriksson and Kim Svensson	Trampoline bouncing – the experience of the body meets mathematics, visual observations, electronic data collection and analysis.		7D	2018-08-16	09:30	30	_0	
122	Iann Lundegård, Leena Arvanitis and Karim Hamza	INTEGRATING FACTS AND VALUES IN UPPER SECONDARY STUDENTS' DELIBERATIONS ON GENE-TECHNOLOGY ISSUES		8A	2018-08-16	11:30	30	-0	

analysis allow us to infer that it is possible for the teacher, through a critical analysis of the projects, to add value to the project in terms of the individual / collective dimension.

15:00 <u>Dinesh Khedkar, Rajendra Shinde, Manjiri Bhave</u> and <u>Uma Chaurasiya</u>

Research Based Pedagogical Tool (RBPT) to Teach Medicinal Plants at Undergraduate Level

ABSTRACT. Pedagogical tools to teach any course content will definitely facilitate better learning. Every teaching tool has the potential to deliver a particular set of skills. Hence a teacher has to select a tool and strategy precisely from available. The crucial emphasis of teacher needs to be on learner's participation in the learning process. In the Indian context, efficacy of predominant chalk and talk method is a timetested one, but may fail to inculcate multiple skills in the students to make them competent and ready to face the challenges all the way while building their careers. Pedagogical advancement advocated RBPTs are as, all inclusive, most effective and resourceful strategies to develop competence in students. This investigation was aimed at designing RBPTs with an objective to teach medicinal plants and chemotaxonomy at undergraduate level. The group discussion helped to formulate the title as "Diabetes: Herbal remedies, Substitute to Allopathic Medicines". The context hinted at elaborations over diabetes as a global issue, considering the allopathic medicines available and their side effects. The problem to be assigned as "Is there a prospective herbal candidate for safer and affordable remedies?". The methodology proposed was, formulate five groups of students showing students' diversity. The tasks assigned to each are: First: Data collection on diabetes, questionnaire designing for patients, doctors and pathology labs, data analysis Second: Literature review on therapies available, screening, shortlisting of anti-diabetic plants, phytochemical exploration and developing artificial key on phytochemicals Third: Plants collection, identification having anti-diabetic prospects, herbarium preparation and digitization Fourth: Prospective candidates selection, preliminary phytochemical screening, result compilation Fifth: Its Mentor including group working for group cohesion, coordination and assessment based on presentations, posters, group discussions and report submissions. This RBPT will help to build up multiple skills like data handling, questioning, chemotaxonomy, plant collection, identification, classification, hands-on research and experimentation.

15:00 Kalle Saastamoinen and Antti Rissanen

Evolution or extinction? - A history of web pages and projects from 2001 to the present