



Pune Knowledge Cluster (PKC) in collaboration with the District Institute of Education and Training (DIET), Pune Presents

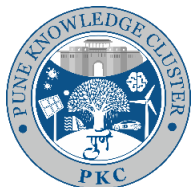
Course on Concepts in Science and Skill Development Program

विज्ञान विषयातील संकल्पना आणि कौशल्य विकसन कार्यक्रम

Organized By	Pune Knowledge Cluster (PKC)
In Collaboration With	District Institute of Education and Training (DIET), Pune
Date	<ul style="list-style-type: none">Start Date: 18th October 2021End Date: 17th January 2022
Location	The course will be conducted on an online platform
Course Duration	12 online sessions. These sessions are planned for every Monday from 11.00 am to 12.30 pm from October 2021 to January 2022.
Course Description	<p>Pune Knowledge Cluster (PKC) and District Institute of Education and Training (DIET) had surveyed school teachers in the Pune district. The survey focuses on understanding the concepts that the teachers feel difficult in teaching. Over 1500 teachers responded to the survey and the data received was analyzed and the following training module was designed.</p> <p>The Pune Knowledge Cluster (PKC) in collaboration with the District Institute of Education and Training (DIET) is planning to conduct the course on “विज्ञान विषयातील संकल्पना आणि कौशल्य विकसन कार्यक्रम.”</p> <p>The event will be inaugurated on Monday, 18th October by Prof. Raghunath Mashelkar (emeritus Professor) and Prof. Ajit Kembhavi (Principal Investigator of PKC), Mr. Ayush Prasad (a video message) (CEO, Zilla Parishad), Dr. Shobha Khandare (Principal, DIET) and Mrs. Dipali Jogdand, (Head of the department of Science division at DIET).</p>
For whom	School teachers from the Pune district
Potential Gains	The course module focuses on attaining a conceptual understanding of the selected topics and the most suitable pedagogical method to teach that topic. For every session, a pre-test and post-test were conducted to understand the impact of the course.



Trainers	<ul style="list-style-type: none"> • Dr. Deepti Sidhaye, S. P. Pune University, Pune • Dr. Sneha Ogale, Modern college, Pune • Dr. Neeraja Dashaputre, Indian Institute of Science Education and Research, Pune • Dr. Anupama Harshal, MANAV, Indian Institute of Science Education and Research, Pune • Ms. Prajakta Pethe, Parle Tilak Vidyalaya Association's Sathaye College • Dr. Dilip R Thube, New Arts Commerce and Science College, Parner, Ahmednagar • Ms. Sukruta Pethe, Parle Tilak Vidyalaya Association's Sathaye College • Dr. Apurva Barve, Education Officer, Office of Climate Education • Dr. Manjiri Bhawe, G N Khalsa College, Mumbai • Dr. Asim Auti, Indian Institute of Science Education and Research, Pune • Dr. Dheeraj Dhiman, Gokhale Education Society's Arts, Commerce and Science College Jawhar, Dist Palghar
Number of Seats	<ul style="list-style-type: none"> • The course is open to all school teachers across Pune district. • A Thousand teachers will be selected on the first cum first serve basis
Registration Fees	There is no registration fees
Course Enrolment Details	The registration is open to all the teachers in the Pune district.
Course coordinators	Prachi Pasalkar, Assistant Programme Manager, Pune Knowledge Cluster (PKC) Gayatri Kshirsagar, Assistant Programme Manager, Pune Knowledge Cluster (PKC) Disha Sawant, Assistant Programme Manager, Pune Knowledge Cluster (PKC) Shital Nagpure, Technical Assistant, Pune Knowledge Cluster (PKC)



Schedule for the course “Concepts in Science and Skill Development Program”

Day & Date	Topic	Speaker
Monday, 18 th Oct 2021	Electricity, generator, working of electric motor	Dr. Deepti Sidhaye S. P. Pune University, Pune
Monday 25 th Oct 2021	Protein synthesis, hormonal coordination	Dr. Anupama Harshal MANAV, Indian Institute of Science Education and Research, Pune
Monday 15 th Nov 2021	Types of chemical reactions, chemistry numerical problems	Dr. Neeraja Dashaputre Indian Institute of Science Education and Research, Pune
Monday 22 th Nov 2021	Genetics, heredity, mitosis meiosis	Dr. Sneha Ogale Modern college, Pune
Monday 29 th Nov 2021	Glycolysis, electron transport system, metallurgy	Dr. Anupama Harshal MANAV, Indian Institute of Science Education and Research, Pune
Monday 6 th Dec 2021	Electricity and Magnetism, Faraday's Law, Fleming's Rule	Ms. Prajakta Pethe Parle Tilak Vidyalaya Association's Sathaye College
Monday 13 th Dec 2021	Atoms, periodic table, chemical bond	Dr. Dilip R Thube New Arts Commerce and Science College, Parner, Ahmednagar
Monday 20 th Dec 2021	Current electricity, ohms law,	Ms. Sukruta Pethe Parle Tilak Vidyalaya Association's Sathaye College
Monday 27 th Dec 2021	Structure of the human body with circulation, human, excretion, nervous system	Dr. Apurva Barve Education Officer, Office of Climate Education
Monday 3 th Jan 2022	Classification of plants and animals	Dr. Manjiri Bhawe G N Khalsa College, Mumbai
Monday 10 th Jan 2022	Science 2 transcription, translation, translocation	Dr. Asim Auti Indian Institute of Science Education and Research, Pune
Monday 17 th Jan 2022	Light, the reflection of light, lenses	Dr. Dheeraj Dhiman Gokhale Education Society's Arts, Commerce and Science College Jawhar, Dist Palghar

About the trainers



Deepti Sidhaye (Assistant Professor, Department of Physics, S. P. Pune University, Pune -7)

She is as an academican, am actively involved in Science education, Communication, popularization and works as Asst. Professor in Dept. of Physics, S. P. Pune University, Pune. She has teaching Experience of 10+ years and research experience of more than a decade. Teaching Experience of 10+ years and research experience of more than a decade. She is also Science columnist in a newspaper: dramatized articles explaining concepts of science.



Dr. Sneha Ogale (Head of the department, Microbiology, Modern college, Ganeshkhind, Pune)

She is working as Associate Professor at Modern College, Ganeshkhind Pune. She has more than 24 years of teaching experience. She has been awarded with Adarsh Pradhyapika award by Progressive Education Society and also Maniratna Shikshak Gaurav Award by Padmashree Dr. Manibhai Desai Manav Seva Trust. She is the Coordinator of DBT-CTEP outreach program: 'SciReach'. She is life member of Society for Biological Chemists (India) and also a member of Association of Microbiologists of India (AMI).



Dr. Neeraja Dashaputre (Principal Technical Officer, Indian Institute of Science Education and Research, Pune)

She is working as the Principal Technical Officer, Indian Institute of Science Education and Research, Pune. She also worked as a faculty at Claremont University, USA for her doctoral studies. She has over six years of teaching experience in India, and USA completed her undergraduate studies in chemical technology from Institute of Chemical Technology, Mumbai. After which, she obtained a doctoral degree in organic chemistry at University of Maryland, USA. During her Ph.D. she recognized her love for teaching and completed the University Teaching and Learning Program at Maryland University. Her research interests are in pedagogy development for teaching chemistry. She loves participating in various science workshops as a workshop trainer as well as a delegate and interacting in students and teachers alike.



Ms. Prajakta Pethe (Parle Tilak Vidyalaya Association's Sathaye College)

She is working as Assistant Professor at physics department at Parle Tilak Vidyalaya Association's Sathaye College. She has completed M.Sc. Physics from Pune University Teaching Digital Electronics and B.Ed. Maths and Science from Pune University. She is also teaching Electronics and Telecommunication for Class FY B.Sc. and Demonstrating Practicals for FY B.Sc. (Physics) and FY B.Sc. (Information Technology)



Dr. Apurva Barve (Education Officer, Office of Climate Education)

She is working as Education Officer, Office of Climate Education, France. She has been working in the area of science education and teacher training for over 7 years. She has taught biology at the college level and created content for online courses in life sciences. . She was involved in designing curriculum of courses for early- & in-service college teachers and coordinated the activities of the Centre of Excellence in Science and Mathematics Education (CoESME), at Indian Institute of Science Education and Research (IISER) Pune.



Dr. Dilip R Thube (New Arts Commerce and Science College, Parner, Ahmednagar)

He is the Vice Principal, Professor and Head, Department of Chemistry and Research Centre, New Arts Commerce and Science College, Parner Dist.- Ahmednagar. He is also a member, BOS in Chemistry, Savitribai Phule Pune University, SPPU, Pune. He is Brain Pool International Post-Doctoral Fellow at Korea Research Inst. of Chemical Technology, (KRICT), Daejeon, South Korea. He has various international research publications. He is also member of Indian Association of Chemistry Teacher (IACT), Chemical Research Society of India (CRSI), Indian Science Congress Association (ISCA), International EPR Society, (IEPRS) and Materials Research Society of India (MRSI).



Ms. Sukruta Pethe (Parle Tilak Vidyalaya Association's Sathaye College)

She is working as Assistant Professor in the department of Physics in Parle Tilak Vidyalaya Association's Sathaye College. She has completed M.Sc. with specialisation in LASERS and Material Science in 1997. She has experience of teaching in 10 educational institutes. She initiated and run a Physics related Column namely "Café Weekly" from 2005 to 2008.



Dr. Anupama Harshal (Consultant - Science Communication and Public Engagement for project MANAV, Indian Institute of Science Education and Research, Pune.

She worked as the Consultant for Science Communication and Public Engagement for project MANAV, Indian Institute of Science Education and Research, Pune. She is an educator with a teaching expertise of 19 years and a certified trainer for STEM teachers training on Research Based Pedagogy. She is a UGC-CSIR Scholar and has accomplished her Doctoral thesis from Hindustan Lever Research Centre in collaboration with Topiwala National Medical College & B. Y. L. Nair Hospital, Mumbai. She has contributed to several regional RBPT workshops (funded by DBT /DST and CoESME, IISER Pune) across the country, as a subject expert /observer.



Dr. Manjiri Bhawe (G N Khalsa College, Mumbai)

She is working as Assistant Professor at G N Khalsa College, Mumbai. She is also a visiting faculty at Nutraceutical Sc. She has more than 7 years of teaching experience at UG/PG level. She has completed Ph.D in botany and also topped in University of Mumbai for masters level. She worked as research fellow at Agharkar Research Institute Pune, central Institute of Research on Cotton Technology, Mumbai and National Facility for Biopharmaceuticals, Mumbai. She has also worked as trainer for Teacher Training workshops organised by IISER, Pune.



Dr. Asim Auti (Coordinator, Maharashtra State Development of Educators and Enhancement in Delivery (MS-DEED), Indian Institute of Science Education and Research, Pune)



He is working as the Coordinator, Maharashtra State Development of Educators and Enhancement in Delivery (MS-DEED) at IISER, Pune. He has been teaching science at UG level for past 10+ years. He has taught various branches of biology at the college level and has been a part of curriculum designing for SPPU affiliated colleges. He has a keen interest in developing and implementing various pedagogical tools centred on Active Learning classrooms for 12+ levels. He has been part of diverse workshops and conferences organised by CoESME and others for educators and learners. He has developed science content for school and college teachers and students.



Dr. Dheeraj Jogindersingh Dhiman (Gokhale education society's arts, commerce and science college jawhar, Dist Palghar).

He is working as an assistant professor in physics at Gokhale education society's arts, commerce and science college jawhar, Dist Palghar and has 10 years of teaching experience teaching students of UG/PG. He has done his masters in physics from SPPU, Pune and currently pursuing Ph.D. From SPPU. Recently, he has obtained an international patent (Australian) on application of phosphor based phosphate for solar cell applications. He is extensively working in the field of outreach activities teaching science, science practical & mathematics for the tribal students, especially striving for maximum representation of girls in STEM education. He has developed physics departments in various schools/ ashram schools & colleges. He has also organised various workshops & seminars for students and also attended various teacher training programmes and faculty development programmes.



	<p>About the organiser: The Pune Knowledge Cluster (PKC) has been established by the Office of the Principal Scientific Adviser to the Government of India. The aim is to bring together academia, R&D institutions and the industry of Pune and its surrounding areas, to address the challenging problems of the region through innovative means, using scientific knowledge and engaging highly skilled human resources. Furthermore, PKC aims to foster capacity building and promote skills development and entrepreneurship among the students and professionals of the city. All relevant organizations and experts will be partners and consulted to identify sustainable solutions to the problems of the city and improve its liveability and prosperity. While the PKC is administered by the Inter-University Centre for Astronomy and Astrophysics (IUCAA), it is a project of and for the whole city. In the initial phase, PKC would focus on air, water, health, and sustainable mobility. For more information, visit: https://www.pkc.org.in/</p>
	<p>For education in India, the District Institute for Education and Training (DIET) are district-level educational institutes which have been established in each district of India by the Indian government. They help in coordinating and implementing government policies at district level. About 3 million primary and elementary teachers need recurrent orientation to innovations in teaching and learning at the school level. The DIET has been charged with this responsibility. The DIET –Pune was established in 1995. Recognized by the Government of Maharashtra and affiliated to the National Council of Educational Research and Training, the Institute offers a flagship two-year Diploma in Education course (D.Ed).</p>