

Chapter 11

International Students, Programs and Partnerships

Executive Summary

The multifarious benefits of the system of education at Dayalbagh Educational Institute extend far beyond the artificial barriers of geographical separation or national origin. The objective of this chapter is to present the aspects of the Institute's plan towards providing open and accessible education to entire humanity, without discrimination or distinction on any grounds. In particular, the plan for inclusion of the international students, as well as the focus programs and international partnerships has been discussed here. The salient features of this chapter are:

- A discussion on the courses, programs and partnerships that would be of special interest to the international community.
- The several innovations that the Institute has already undertaken through decades of international programs and partnerships.
- A strategic plan for expanding the existing involvement and inclusion of the international community over the next fifteen years through international off-campus and the use of technology interventions.



Fig. 11.1 A Pictorial Summary of the Modes of Internationalization of Education at DEI.

11.1. Introduction

The Mission objective of founding Educational institutions at Dayalbagh was as stated in the Educational policy-- to evolve a 'complete man', that is, a well-rounded person whose hallmarks are intellectual strength, emotional maturity, truthfulness, general knowledge, aptitude, sense of duty and discharge of obligations, high moral character, simple living, scientific temper, interdisciplinary outlook and societal commitment. The seeds of Education in Dayalbagh were sown in 1917 with the establishment of the Radhasoami Educational Institute as a Middle school which later grew into a Degree College in 1947. One of the major aims enlisted in its Vision plan is that it becomes a world-renowned institution offering courses that are relevant to the international community as well as providing a broad-based, integrated, multifaceted, interdisciplinary, value based, well-rounded and world-class education with emphasis on academic excellence and holistic development.

In 2011, DEI laid down its vision for the next twenty years i.e. from 2011-2031, outlining the path towards becoming a top international university. Vision 2031 identifies potential for excellence in broad, trans-disciplinary areas, skilling and entrepreneurship. Today India is a rapidly growing country at the center of a technological revolution. The need of the hour is, Quality Education at low cost, an education that is all-encompassing and diverse, and one that gives students exposure to a dazzling diversity of cultures and languages. Since it was granted the Deemed University status in 1981, the Institute has been collaborating with the best Universities in the world through Exchange programmes (Faculty and students) and research collaborations.



International Students, Programs and Partnerships

Technology Intervention based joint international courses and research.

- Joint course with the University of Maryland
- Discussion on expansion of collaboration with Michigan State University
- Research discussion with Stanford University

Innovative Computer Science Technologies
What Technology can/can't do for you
Ashok K Agrawala
University of Maryland
College park, MD 20742
Agrawala@cs.umd.edu
(301) 405-2525
March 2010

Michigan State University

Stanford University

Fig. 11.2 Technology Intervention based joint International Courses and Research

11.2. Modes of Internationalization

The Institute has adopted a multi-modal three-pronged approach towards extending the benefits of its programs to the international audience, and also to cater to its own students through interactions with international students and faculty.

The various modes of internationalization have been illustrated in Fig. 11.1.

11.2.1. Technology Interventions

Dayalbagh Educational Institute has championed the use of technology for interactions with international faculty and students. While these technologies have been in use at the Institute for even longer, the first formal joint course offering was with the University of Maryland starting in 2006. after an agreement for academic cooperation was signed. The number of agreements that DEI has had since the one with the University of Maryland, College Park have risen significantly and technology interventions are regularly used for teaching and learning across borders, as well as for collaborative research.

Fig. 11.2 shows some samples pictures of international collaborations in teaching and research with some globally leading institutions.

11.2.2. International Off-campus

The Institute currently has six off-campus (currently known as ICT campuses) with a special focus on the rural and tribal population. It is proposed to develop nine off-shore campuses proposed through the 15-year strategic plan, the details for which are provided in the chapter on Faculty Recruitment and also later in this chapter.

11.2.3. Exchange Programs

Joint activities have been established with several international partners, the pertinent ones of which are listed later in this chapter. These projects are undertaken to enhance the exchange of scientific knowledge and cultural traditions at the globe level, in keeping with the commitment of Dayalbagh Educational Institute, as well as its partners, to international scientific and cultural exchanges.

Within the agreed fields, the partners seek to engage in exchange of faculty and students for research, teaching and study; exchange of scholarly publications and other information in areas of interest to both parties, including library collections and services; joint research activities; and exchange of scholars for seminars, conferences and other academic meetings.

The zero-economic liability and need blind system of education is one of the cardinal features of Dayalbagh Educational Institute. This is also reflected in the international programs and student exchanges, where the fee agreements require that students need to pay for tuition only at their home institute, based on the principle of even exchange. International students at DEI can also avail of the several models for subsidizing education available to home students, such as industry co-operative programs, entrepreneurship, earn-while-you-learn and the like.

11.3. Credit Equivalence and Credit Transfer

The Institute offers a flexible choice-based credit-based system, where the students have the liberty to choose courses based on their program requirements, their academic performance and completion of pre-requisites, and their own preference.

The coursework is graded on a relative 11-point scale that is at par with the existing international standards with an easy translation to any other system of grading (such as percentage, 4-point CGPA system, etc).

The institute has a reputation for an open and welcoming culture at all levels and students who may have partially completed the program requirements at another recognized institute would easily be able to transfer their credits to the DEI system to complete the remaining degree requirements.

11.4. Academic Programs

Several academic offerings at DEI would be of tremendous interest to international students. The institute offers short-term modular and diploma courses on Consciousness and Theology, Yoga and Meditation, Ayurveda, Renewable Energy, Hindi Studies, Sanskrit studies, Music (Vocal (Classical and Folk), Sitar, Tabla, Dance, Fine Arts), Creative Writing, Sanskrit, Hindi and other regional language Courses. These courses reflecting the essence of Indian culture and practices would be suited to the needs of learners with an interest in these areas. The Institute may offer Winter courses in Textile Designing and Printing, Hindi, Sanskrit and regional languages. Besides these offerings, the entire breadth of courses proposed in the chapter on academic plan would also be available to the international audience.

The admission of international students to academic programs would be fair and transparent, as discussed in the chapter on student admissions policy and plan.

While the Institute does not propose to restrict admissions to any program by any means, it is expected that students from developing economies would be attracted to the local need based skilling programs while specialized programs on eastern civilization studies would be of considerable interest to students from developed economies.

11.5. Research Collaborations

Dayalbagh Educational Institute has several successful international research collaborations, the details for which have been described in a later section in this chapter and in the chapter on networking and collaborations. As described in the chapter on research plan, the interdisciplinary research divisions being proposed (Agriculture; Entrepreneurship; Classical Studies; Digital Life; Life and Mathematics; Esoteric Art and Science; Sustainability (Six Sigma); Thinkism; and Maintenance Network would also invoke significant international interest.

11.6. The Complete Spectrum: From Rural and Tribal to International

A significant attraction for international audience at DEI – both for academics and research is the rarity that perhaps no other institution currently offers. DEI caters to a complete spectrum, and therefore provides another avenue for holistic education through a complete exposure to rural and tribal life to the most elite of international audience.

While the developing world faces an overwhelming challenge in its ability to reach out to rural and backward communities, in terms of catering to some of the most basic human needs. The conundrum of social inclusion, need for amelioration of the human condition, and alleviation of the inequalities is even more pronounced for the marginalized rural and tribal population residing in remote areas. India, for example, has identified some of the most backward communities as scheduled tribes, which account for approximately 16% of the country’s population, who are among the most impoverished. The educational institutions in Dayalbagh, through over a hundred years of service to humanity and a deep commitment towards ensuring accessibility regardless of any social, financial and geographical barriers have developed model solutions towards the cause of equal opportunity. The Dayalbagh Educational Institute has been actively contributing to social upliftment through education, healthcare, vocational training, agriculture, financial assistance, social reform, employing several modern day and cutting edge technology solutions as enablers. This work in progress is encouraged and supported by collaborations with some of the leading Universities in the world.

11.7. The Strategic and Implementation Plan

Plan Period	2018 – 2022	2023 – 2027	2028 – 2032
International Off-Campuses	2	4	9
Gross Engagement of International Students	1600 (10% of total)	3500 (~15% of total)	8000 (~25% of total)
Expected International Students at Main Campus	200	400	500
Expected International Students at International Off-campuses	600	1500	4000
Expected International Students at Domestic Off-campuses	100	100	200
Expected International Students in Exchange Programs	100	300	800
Expected International Students in Technology Intervention Programs	600	1200	2500
International Partnerships	30	65	100
Office of International Affairs	An on-campus office and offices at off-campuses	Offices at new off-campuses	Offices at all off-campuses and a Central International Liasoning Center

A numeric summary of the fifteen-year strategic plan has been presented in the preceding table. The Institute plans to create nine international off-campus at Atlanta, Chicago, New York, San Francisco, Toronto, London, Sri Lanka, Dubai and Nepal.

The complete strategic plan in 5-year phases, along with the implementation plan for the next five years has been described in the subsections below.

11.7.1. Strategic and Implementation Plan for Phase – I (2018 – 2022)

The Institute envisages to expand its global outreach through strengthening of existing partnerships with several world-class institutions and forging new partnerships with leading institutions around the world. The Institute already has International student exchange programs with several international partners, including the University of Kiel, Germany and the University of Maryland, College Park, USA.

2018: Dayalbagh Educational Institute has already received an expression of interest from several world-class Universities for collaborative partnerships, including the University of Hong Kong, Hong Kong and the University of Calgary. By the end of 2018, the number of formal agreements that Dayalbagh Educational Institute has would be 15. The Institute already has a significant reach in Sri Lanka through various programs, which will be strengthened and expanded through offering of additional programs to meet local needs. The main campus would also be open to admitting international students.

2019: The first international off-campus of Dayalbagh Educational Institute would be established in Sri Lanka (Colombo), which is the site of several activities of the Institute in that country already. Several international students find interest in solving social problems, particularly those involving the marginalized rural and tribal population. To facilitate this, the Institute would also open admission and engagement for international students at the remotely located domestic off-campus of the Institute. Academic and research activities would also be strengthened in Nepal, which is of significant interest to the international community. An office of international affairs would also be set up on the main campus.

2020: Dayalbagh Educational Institute is currently ranked at the highest grade ‘A’ awarded by the National Assessment and Accreditation Council (NAAC), which is recognized by most other countries. The Institute would also seek accreditation from other reputed and globally recognized international bodies to facilitate a reverse transfer of credits, including those earned through the technology enabled programs.

2021: The second international off-campus of the institute would be established in Nepal, a neighboring country with economic and academic conditions much like those of rural India. This off-campus would serve a social purpose similar to those of rural India, catering to the local needs of the population.

2022: The number of formal international agreements by the end of this year would be 30, and several international partners for this have either already been identified or are under

PLAN FOR INTERNATIONAL STUDENTS AND FACULTY

consideration. The total international student population at the end of this phase would be 1600, spread over the main campus, domestic and international off-campuses, exchange programs with partner institutions and students enrolled through technology intervention programs.

11.7.2. Strategic Plan for Phase – II (2023 – 2027)

Entering into the second phase of the strategic plan, DEI would already be recognized as a strong international academic force to reckon with, eliciting interest from new international partners, as well as the student community at large. During this phase, the number of international students would grow to 3500 (break-up provided in the table). Off-campuses during this phase would be set up in San Francisco and New York, with a branch of the office of international affairs at each one of the off-campuses. The international partner institutions at the end of this phase is expected to be 65.

11.7.3. Strategic Plan for Phase – III (2028 – 2032)

An increase in the number of course and interdisciplinary and transdisciplinary research offerings, coupled with a strong international reputation would make the programs of the institute even more attractive for international audience. During this phase, off-campuses would be set up at Atlanta, Chicago, New York, Toronto, London and Dubai. The institute already offers some of its certification programs at these locations. The number of international students in various modes, as detailed in the table, would grow to 8000, and the number of international institutional partners would grow to 100. A central office for international liaison would be set up for coordination between various international off-campuses and other international centers of learning.

11.8. Case Studies: History of International Partnerships

Dayalbagh Educational Institute has a long history of international partnerships with leading Institutions worldwide. While informal relationships and programs with international partners have existed for several decades, the first formal Institute-wide agreement was signed with the University of Maryland in 2006.

This section describes some of the salient outcomes from existing international partnerships and programs at DEI. The design and implementation an Internet-based world-wide distributed video streaming network at the Multimedia Laboratory, DEI pre-dates many of the existing well-known technology enabled learning platforms. As a result, besides being a centre for research on content distribution and media technologies, the Multimedia Laboratory is a central location for accessing and disseminating course content through this network. This facility is also used for reception and transmission of live lectures and interactive sessions with students in remote classrooms both in India and abroad on a regular basis.

The promotion of international diversity on campus not only provides an avenue to international students to learn about the Indian civilization and culture but also helps promotes learning opportunities about diverse cultures for students at DEI.

11.8.1. University of Maryland, USA

The University of Maryland, College Park, USA (UMD) is the longest serving formal international partner of DEI. Through the technology enabled classrooms, students at DEI are able to regularly participate in two-way interactive video-conferencing courses from the UMD, along with their peers from that University, e.g., courses on operating systems and computer networks. Students from both Universities also participate in a course on Information Centric Design, which is offered jointly by UMD and DEI. An illustrative picture of a course being offered from UMD to students at DEI is shown in Fig. 11.2.

The DEI and UMD have successfully completed a DST–NSF Collaborative Project on “Transition Metal Oxide based Nanoarchitectures for Photoelectrochemical Hydrogen Generation,” under the Material World Network Programme.

The collaborations between the two Institutions have led to exchange of several students and faculty from across multiple departments and joint publications in reputed journals. A picture of graduate students from Computer Science in DEI visiting UMD for the summer term, 2013 is shown in Fig. 11.3.



Fig. 11.3 Graduate Students in Computer Science from DEI participating in Summer Term, 2013 with Prof. Ashok Agrawala, University of Maryland, College Park, USA.

11.8.2. University of Waterloo, Canada

An agreement between the Dayalbagh Educational Institute and the University of Waterloo, Canada (UW) was signed in July 2008 in a unique video-conferenced ceremony. There has been considerable progress under the umbrella of the MoU, in the form of joint research, publications, faculty and student visits, joint colloquia and conferences, joint authorship of books and undergraduate student exchange in the form of internships, co-operative visits and entrepreneurship.

There has been a steady stream of visitors both ways since then. DEI and UW jointly initiated the Indo-Canadian Research Colloquium, UW and DEI: Education and Research in Dialogue in summer 2016 and summer 2017 respectively. The colloquia elevated the flourishing relationship and long-cherished association between our Institutions to even loftier horizons. A picture of the colloquium in 2016 is shown in Fig. 11.4



Fig. 11.4 Indo-Canadian Research Colloquium in Summer, 2016 UW and DEI: Education and Research in Dialogue.

11.8.3. Michigan State University, USA

Dayalbagh Educational Institute signed an agreement for academic cooperation with the College of Engineering, Michigan State University (MSU), in 2012. The agreement has led to joint collaborative projects of social value, multiple exchange visits by faculty, students and delegations; joint supervision of research; collaborative projects of social value and joint publications. A new collaborative research project on developing pathogen sensors has also recently been initiated, towards which two joint proposals are also being submitted for funding. A list of collaborative activities with MSU has been provided in Annexure 11.1.

The agreement has been renewed in 2017 and also includes the College of Agriculture and Natural Resources and the College of Education. A news article on the visit of delegation from DEI to MSU for renewal of agreement is shown in Fig. 11.5.

Agreement Signed with the Michigan State University

A multidisciplinary delegation from Dayalbagh Educational Institute was invited to visit Michigan State University from June 11 to June 20, 2017. The visit included meetings with the President of the University; Deans of the College of Engineering, the College of Agriculture and Natural Resources, the College of Education and the Eli Broad College of Business; Directors of Asian Studies Center, School of Packaging; Department Chairs, other administrators, faculty and potential collaborators across various Colleges and Departments. An International Agreement for Academic Cooperation with the College of Engineering, College of Agriculture and Natural Resources and the College of Education was also signed, which includes provisions for exchange of materials in education and research, publications,



and academic information; exchange of faculty and research scholars; joint research and meetings for education, research and outreach; technical assistance; student exchanges; and joint curriculum development in support of K-12 education and joint development of innovative teaching methods.

Fig. 11.5 News Article on visit of delegation from Dayalbagh Educational Institute to Michigan State University for renewal and expansion of agreement.

11.8.4. Kiel University, Germany

Kiel University, Germany (CAU) and Dayalbagh Educational Institute have a long history of partnership, even though a formal agreement between the Universities was signed only in 2016. The details of the collaborative activities in Engineering, Sciences, Humanities and Languages have been provided in Annexure 11.2.



Fig. 11.6 Faculty and Student Exchange with Kiel University, Germany

The collaboration between the two Universities also extends to pre-University level. Department of English Studies, DEI, successfully organized the “DEI- KIEL Faculty –Students Exchange Programme” from 9th March to 28th March 2015 as an initiative towards the internationalization of English language and literary studies. The visiting team from CAU comprised of a faculty member and two students of MA (English). During the three-week exchange program, the visiting faculty conducted three workshops for the students of MA and PhD on themes of contemporary relevance in literature which include “Hermeneutics: Cultures of Making Sense”, “Poststructuralism: The Function of Literature”. The visiting students attended

PLAN FOR INTERNATIONAL STUDENTS AND FACULTY

classes, presented seminars and conducted a 3 day workshop on “Learning English Through Personal Maps: Biographies Sketched” at the (i-c-n-c-) TALL for the students of eighth grade of the Prem Vidyalaya Girls’ Intermediate College. A picture of this exchange is shown in Fig. 11.6.

11.8.5. University of Arkansas, USA

The Dayalbagh Educational Institute and the University of Arkansas have recently entered into an agreement, whereby the two institutions have started working towards programs for exchanging academic, research and other educational materials. This includes research reports, reprints and other publications. Information about faculty specialties and program offerings are also made available to each institution. The agreement entails programs for exchanging students between the two institutions, either on the basis of reciprocal exchange of benefits or through fees set for the participation in the specific programs. The institutions are also exploring avenues to develop financial resources to support educational activities, including joint grant proposals.

11.8.6. Oakland University, USA

Oakland University (OU) entered an agreement with Dayalbagh Educational Institute in 2015. The two Institutes have jointly organized two conferences: ICAM 2014 at Oakland University and ICAM 2015 at KNIT Sultanpur and now are in the process of organizing a third conference ICAM 2017 at IIT BHU Varanasi in December 2017. A collaborative research project is also under consideration.

11.8.7. Stanford University, USA

Stanford University has research collaborations with DEI in Physics with DEI. The two institutions also partner in programs of social relevance, with a special focus on rural and tribal population in India, particularly in frugal innovation. The frugal science project aims at nurturing curiosity and nurturing scientific temperament among students in economically challenged settings, as a practical extension of the Sci-High program. The two institutions also routinely use technology interventions for research collaborations and discussions and for reaching out to the marginalized population. Some pictures from this collaborative program are shown in Fig. 11.7.



Fig. 11.7 The “Frugal Science” Project with Stanford University USA for nurturing curiosity and promoting scientific temperament in rural and tribal areas.

11.8.8. University of Hong Kong, Hong Kong

The University of Hong Kong, Hong Kong is one of the highest ranked Universities in the Asian continent, and plans to extend joint exchange programs with Dayalbagh Educational Institute. These programs would be of tremendous interest to students from the western continents who have an inclination towards the eastern civilization and philosophy, Asian studies, oriental culture, etc. This partnership would extend a full spectrum to the western audience, with expert faculty as well as immersive programs specializing in both south-east Asian and central Asian traditions and studies. Following initial discussions, the Vice President of the University of Hong Kong visited DEI with a member of the Faculty to visit various departments and facilities, and meetings with students, faculty and administration to finalize the details of the pilot exchange program that is scheduled to begin in 2018. A picture from this visit is shown in Fig. 11.8.



Fig. 11.8 Administration and Faculty from The University of Hong Kong discussing proposal for exchange programs with the administration at DEI.

11.8.9. Other Partnerships

Dayalbagh Educational Institute has several other active collaborations and partnerships with premier Universities globally, including a Indo-U.S. 21st Century Knowledge Initiative awards (formerly known as the Obama-Singh 21st Century Knowledge Initiative) on photo-electro-chemical splitting of water with the University of Arizona, USA, faculty exchange with the University of Washington, St. Louis, USA, joint supervision of research with the National Institute for Materials Science, Japan and similar academic partnerships with Harvard University, USA, Hokkaido University, Japan, University of Missouri, USA, HAN University of Applied Sciences, Netherlands and the University of British Columbia, Canada.

11.9. Existing International Programs

11.9.1. International School on Quantum and Nano Computing Systems

The Annual International School on Quantum and Nano Computing Systems and Applications (QANSAS) organized by the Dayalbagh Educational Institute towards the end of November every year since 2008 attracts some of the most acclaimed researchers in the fields of quantum and nano computing from across the globe, including past attendances by Nobel laureates. This school now also features a ‘Special Forum on Consciousness: Integrating Eastern and Western Perspectives’. A representative picture from QANSAS 2016 is shown in Fig. 11.9.



Fig. 11.9 The International School on Quantum and Nano Computing Systems and Applications has been organized at DEI annually since 2008.

11.9.2. East-West Integration Forum at Consciousness Conference

The Centre for Consciousness Studies at DEI has carved out a niche for itself in the annual conference of consciousness researchers all over the world, the ‘Toward a Science of Consciousness’ (now called ‘The Science of Consciousness’) (TSC) series. The tradition in the TSC-series has been to hold it in alternate years at Tucson, Arizona, USA and every other year anywhere else in the world. Soon after visiting DEI in 2011 for Quantum-Nano School QANSAS 2011, Prof. Stuart Hameroff, chief architect of the TSC-series decided to hold the TSC 2013 conference at DEI, and also invited participation on behalf of DEI in the then forthcoming TSC 2012 at Tucson, Arizona. DEI rose up to the occasion and organized an Eastern Philosophy Forum at TSC 2012 at Tucson in video-conferenced mode with DEI, Dayalbagh very successfully which confirmed its bid for holding TSC 2013. The Centre hosted the Twentieth International Conference on Toward a Science of Consciousness (TSC 2013) from March 3-9, 2013 with over 400 leading scientists and researchers from all over the world. The East-West Integration Forum has been organized by the Dayalbagh Educational Institute at TSC conferences regularly since

2012, at Tucson Arizona, USA in 2012, 2014, 2016 (and also proposed in 2018) and at Dayalbagh Educational Institute in 2013, Helsinki, Finland in 2015 and San Diego, California, USA in 2017.



Fig. 11.10 The East-West Integration Forum at the Consciousness Conference has jointly been organized by DEI since 2012.

A representative picture of the TSC East-West Integration Forum organized jointly by Dayalbagh Educational Institute since 2012 is shown in Fig. 11.10.

11.9.3. Programs in Srilanka

In December 2010, the first move was made to explore the possibility of starting Distance Education activity in Sri Lanka. An exploratory team surveyed the scene and by early May 2011, the concept starting materializing. Two one year Certificate-Level Vocational programs were identified. One was the Motor Vehicle Mechanic (Four Wheeler) and the other was the Modern Office Management and Secretarial Practice. During Summer, 2011 the draft of an application for the registration of DEI Study Centre in Colombo was finalized in Chennai and filed soon after the Tertiary and Vocational Education Commission (TVEC), Government of Sri Lanka for the two certificate program to start during 2011-12. The mentor and facilitator terms were set up and training was arranged for both these programs at the MTV Puram and Chennai under the novel Training-the-Trainers (TOT) program.

Through the sustained efforts of the Sri Lankan team a number of MOUs were signed. These included two premises. One with the Arul Study Circle, which has since moved to its own premise and the other with the Vocational Training Authority of the Sri Lanka Government for the Practical Training to be given to the MVM students. The DEI Study Centre was inaugurated later in summer, 2011 and the motor vehicle mechanic vocational program was launched in Autumn of the same year. Starting winter 2012, the vocational program in modern office

PLAN FOR INTERNATIONAL STUDENTS AND FACULTY

management and secretarial practice has also been running successfully. The Government of Sri Lanka has accorded approved to all programs run by the Dayalbagh Educational Institute.

With a view to also promote international industry linkages, DEI has entered into an agreement with Lanka Ashok Leyland and also offers programs in Telematics and renewable energy.

11.9.4. Other International Programs

The institute also offers programs through technology interventions and in hybrid mode to several international centers in North America, Europe, Australia and the middle east in Indian music, Indian culture, various skill development courses (e.g. textile design and printing, apparel design, etc.), besides certification and post graduate diploma programs in theology and consciousness studies.

Annexure 11.1 Collaborative Activities with Michigan State University, USA

1. Prem Sewak Sudhish visited Biometrics Research Group at MSU during Summer 2011 when a meeting was organized with the Dean of the College of Engineering, MSU at that time, Prof. Satish Udpa (now Executive Vice President for Administrative Services). A video-conferencing session was organized with DEI, where some members of the faculty and administration presented the several initiatives being undertaken at DEI. The two parties agreed to enter into an agreement for collaboration.
2. An MoU for a duration of five years between the College of Engineering, MSU and DEI was signed in January, 2012. This agreement has recently completed its term and is in the process of renewal.
3. Two PhD students from MSU – Brendan Klare and Soweon Yoon visited DEI in April, 2012 delivered lectures and interacted with students.
4. A delegation from DEI visited MSU in April 2012 to explore collaborative opportunities between the two Universities. The delegation consisted of the following:
 - i. Prem Sewak Sudhish, Faculty of Science
 - ii. Dr. C M Markan, Faculty of Science
 - iii. Dr. Ranjit Satsangi, Faculty of Education
 - iv. Dr. Sona Ahuja, Faculty of Education
 - v. Dr. Siddharth Agarwal, Faculty, Para-medical programs
 - vi. D Swanti, DEI Women's Polytechnic
 - vii. Bharat Agrawal, Student, Faculty of Engineering

The delegation had several meetings with faculty and administration of MSU and a video-conferencing session was also organized for other members of the faculty and administration at DEI.

5. Prof. Anil K. Jain, University Distinguished Professor visited DEI in March 2013 and delivered an invited talk.
6. Prem Sewak Sudhish visited MSU again in Summer 2012, Fall 2014 and Summer 2015 for collaborative research and also jointly taught an advanced undergraduate course on Biometrics in Fall 2014 with Prof. Arun Ross, MSU.
7. A four-way collaborative project between MSU, DEI, Saran Ashram Hospital and NEC Corporation on biometric identification of infants and toddlers was undertaken from the duration March 2015 – March 2016. The outcomes of the project are now being used to drive government policy on the age at which biometric traits of children are registered in the Aadhaar (UID) program. As part of this project, Prof. Anil K. Jain, University Distinguished Professor and two PhD students – Sunpreet Singh Arora and Lacey Best-Rowden visited DEI in March and September, 2015 and in January and March, 2016. They also delivered lectures in March 2015 and presented the findings of the research in March 2016. The project was featured on the homepage of MSU and also featured in several articles and reports in the popular media, e.g.:
<http://msutoday.msu.edu/news/2016/identifying-children-and-saving-lives-one-thumbprint-at-a-time/>
<http://www.forbes.com/sites/jenniferhicks/2016/09/22/new-study-shows-a-childs-fingerprint-doesnt-age/>
<https://www.goodnewsnetwork.org/identifying-children-thumbprints-save-lives-future/>
8. Prem Sewak Sudhish and Dr. Anjoo Bhatnagar visited MSU in April 2016.

PLAN FOR INTERNATIONAL STUDENTS AND FACULTY

9. Prof. Ajit Srivastava, Professor, Department of Biosystems & Agricultural Engineering, MSU visited DEI in November 2016 and met several faculty members, administration and students. Several new collaborations are also under consideration since Prof. Srivastava's visit. He will be coordinating the renewed MoU for MSU.
10. Ms. Niti Prasad, an undergraduate student at MSU visited DEI in December 2016 and participated in the Winter Camp.
11. A delegation from DEI visited MSU in June 2017 to strengthen collaborative opportunities between the two Universities. The delegation consisted of the following:
 - i. Prof. AK Saxena, Dean, Research and Development and Head, Department of Electrical Engineering
 - ii. Prof. PK Dantu, Dean, Outreach (Agriculture)
 - iii. Dr. Sona Ahuja, Dean's Nominee, Faculty of Education
 - iv. Dr. K Soami Daya, Potential Collaborator
 - v. Dr. T Prem Saran, Potential Collaborator
 - vi. Mr. Prem Sewak Sudhish, MoU Coordinator

The delegation had meetings with the President, Michigan State University, the Deans of College of Engineering, College of Agriculture and Natural Resources, College of Education and the Eli Broad College of Business. The delegation also met with the Director of Asian Studies Center, Director of School of Packaging, Department Chairs, other administrators, faculty and potential collaborators across various Colleges and Departments. An international agreement for academic cooperation was also signed with the College of Engineering, College of Agriculture and Natural Resources and the College of Education.

12. A delegation from MSU visited DEI in December 2017 for a special joint DEI-MSU plenary session on "Feeding ten billion: A Systems Approach" at the IEEE sponsored XLI National Systems Conference, and to strengthen collaborative opportunities between the two Universities, with a special focus on agriculture, dairy and food sciences. The delegation consisted of the following:
 - i. Dr. Amirpouyan Nejadhashemi, Associate Professor in the Department of Biosystems and Agricultural Engineering, College of Engineering and the Department of Plant, Soil and Microbial Sciences, College of Agriculture and Natural Resources.
 - ii. Dr. Maria Melissa Rojas-Downing, Postdoctoral Research Associate in the Department of Biosystems and Agricultural Engineering, College of Engineering.
 - iii. Mr. Proteek Chandan Roy, Graduate Student in the Department of Computer Science and Engineering, College of Engineering.
 - iv. Mr. Ian Meyer Kropp, Graduate Student in the Department of Biosystems and Agricultural Engineering, College of Engineering.
 - v. Prof. Kalyanmoy Deb, Professor and Koenig Endowed Chair, Electrical and Computer Engineering; BEACON Center for the Study of Evolution in Action; Computer Science and Engineering; and Mechanical Engineering also delivered a video plenary talk at the conference.

The delegation visited several facilities and labs on land at the Institute and had meetings with the administration, faculty and students at DEI to explore potential areas for future collaborations.

13. Ms. Niti Prasad, undergraduate student in the Department of Computer Science and Engineering at Michigan State University is scheduled to visit DEI on an exchange program for the Spring Semester, January – May, 2018 and to participate full-time in the Bachelor of Vocation in Internet of Things program offered by the Department of Physics and Computer Science.

14. The following joint publications have resulted from collaborations between the two universities:
- i. Prem Sewak Sudhish, Anil K. Jain, and Kai Cao, "Adaptive fusion of biometric and biographic information for identity de-duplication", *Pattern Recognition Letters*, vol. 84, pp.199-207, 2016.
 - ii. Anil K. Jain, Sunpreet S. Arora, Kai Cao, Lacey Best-Rowden, and Anjoo Bhatnagar, "Fingerprint Recognition of Young Children", *IEEE Transactions on Information Forensics and Security*, no. 99, 2016.
 - iii. Anil K. Jain, Sunpreet S. Arora, Lacey Best-Rowden, Kai Cao, Prem Sewak Sudhish, Anjoo Bhatnagar, and Yoshinori Koda, "Giving Infants an Identity: Fingerprint Sensing and Recognition", *International Conference on Information and Communication Technologies and Development*, Ann Arbor, MI, USA, 2016.
 - iv. Anil K. Jain, Sunpreet S. Arora, Lacey Best-Rowden, Kai Cao, Prem Sewak Sudhish and Anjoo Bhatnagar, "Biometrics for Child Vaccination and Welfare: Persistence of Fingerprint Recognition for Infants and Toddlers", *Michigan State University Technical Report, MSU-CSE-15-7*, 2015.

PLAN FOR INTERNATIONAL STUDENTS AND FACULTY

Annexure 11.2 Collaborative Activities with Kiel University, Germany

Collaborative research work between Faculty members from DEI and Kiel has been going on for several years now. This has been made possible due to the many visits undertaken from each side by several Faculty members in the past decade or so.

Faculty members from DEI who have visited Kiel University on academic visits are as follows.

S.No.	Name	Year of visit
1	Prof C Patvardhan	2001, 2008, 2009, 2010, 2012, 2013, 2014
2	Prof K Hans Raj	2005, 2006, 2008, 2011, 2014, 2017
3	Prof Surat Kumar	2008
4	Prof K Maharaj Kumari	2006, 2014
5	Dr C Vasantha Lakshmi	2013, 2014
6	Dr Ashish Mani	2011
7	Dr Bani Dayal Dhir	2012
8	Mr Arsh Dhir	2012
9	Prof Gursaran	2014
10	Prof GP Jandial	2014

Faculty members and Doctoral / Post Doctoral Students who have visited DEI from University from Kiel are as follows.

S.No.	Name	Year of visit
1	Prof Anand Srivastav	Every year from 2008 at least one visit
2	Prof Anna Horatchek	2013, 2014, 2015, 2017
3	Prof Jens Heber	2012
4	Prof J Zimmerman	2014, 2015
5	Dr Lasse Kliemann	2011, 2013, 2014
6	Dr Mourad El Quali	2013
7	Mr Christian Giessen	2013
8	Dr Volkmar Sauerland	2014

A consolidated report of some active collaborations are given below.

Collaboration between the groups of Prof A Srivastav, Kiel and Prof C Patvardhan & Prof. K. Hans Raj, DEI

The two groups have been collaborating for several years now with visits from both sides fortifying the collaboration. The general area of common interest has been Combinatorial Optimization and Parameter Estimation problems in “The Future Ocean” project being pursued at Kiel University. The output from these collaborative efforts is summarized below. The efforts are continuing within the work being pursued through the joint PhDs being supervised at DEI and at Kiel and otherwise.

Joint Indo – German (DST – DFG) Project “Quantum-inspired Evolutionary Algorithms for hard Combinatorial Optimization Problems”, April 2012 – April 2014.

Status: Successfully Completed.

Joint PhDs in Progress (with Prof A Srivastav and Prof C Patvardhan as Supervisors) in the area of Combinatorial Optimization

Sulabh Bansal
V Prem Prakash (both registered at DEI)
Mayank (registered at Kiel)

Talks delivered at CAU, Kiel

Talks by Prof C Patvardhan, DEI

June 11, 2008, “Evolutionary and Quantum Evolutionary Algorithms for Search and Optimization”, Computer Science Department, Kiel University.

June 2009, “Evolutionary and Quantum Evolutionary Algorithms for Engineering Optimization”, Department of Electrical Engineering, Kiel.

May 27, 2010, “Quantum Evolutionary Algorithms for Search and Optimization”, Department of Computer Science, CAU, Kiel,

June, 2012, “Quantum-inspired Evolutionary Algorithms for Engineering Applications”, Mathematische Seminar, CAU, Kiel.

June 18, 2013, Invited Talk, “Quantum-inspired Evolutionary Algorithms” Mathematische Seminar, Kiel.

April 4, 2014, “On the development of Robust QIEAs”, Mathematische Seminar, Kiel University.

Talks by Prof. K. Hans Raj, DEI

Application of Genetic Algorithms for Hypergraph coloring Problem, 2005.

Evolutionary Algorithms for Optimization of Manufacturing Processes, 2006.

Agile Manufacturing and Computer Aided Design, 2008.

Genetic Evolutionary Simulated Annealing for Constrained Optimization, 2011.

Agile Manufacturing, Agile Software Development and Quantum Inspired Evolutionary Algorithms, 2014.

Finite Element Modelling of Severe Plastic Deformation, 2017.

Talks by Prof. K. Maharaj Kumari

Prof . K Maharaj Kumari visited Kiel University in June 2014. She delivered an Invited talk on “Aerosol Chemical Characterization: An Indian perspective”.

Talks by Dr C Vasantha Lakshmi

June 18, 2013, Invited Talk, “Feature Selection for OCR of Indian Scripts using Genetic Algorithms” Mathematische Seminar, Kiel.

April 4, 2014, “Towards Optimal Feature Selection”, Mathematische Seminar, Kiel University.

Book Chapter

L Kliemann, O Kliemann, C Patvardhan, V Sauerland and A Srivastav, A New QEA Computing Near-Optimal Low-Discrepancy Colorings in the Hypergraph of Arithmetic Progressions, Experimental Algorithms, Proceedings 12th International Symposium, SEA 2013, Rome, Italy, June 5-7, 2013, Series: Lecture Notes in Computer Science, Vol. 7933.

PLAN FOR INTERNATIONAL STUDENTS AND FACULTY

Joint Publications

Names of all the authors as appear in the Paper	Title of the paper	Name of the Journal / Proceedings, Volume, year and page
J. Rückelt, V. Sauerland, T. Slawig, A. Srivastav, B. Ward and C. Patvardhan	Parameter optimization and uncertainty analysis in a model of oceanic CO ₂ uptake using a hybrid algorithm and algorithmic differentiation	International Journal on Nonlinear Analysis: Real World Applications, Volume 11, Issue 5, October 2010, Pages 3993-4009.
C. Patvardhan, V. Prem Prakash A. Srivastav	Novel Quantum-inspired Evolutionary Algorithms for the Quadratic Knapsack Problem	International Journal of Mathematics in Operations Research, Inderscience Publications ISSN (Online): 1757-5869 - ISSN (Print): 1757-5850, Vol. 4-2, 2012, pp 114 – 127.
C Patvardhan Sulabh Bansal Anand Srivastav	Solution of ‘hard’ knapsack instances using Quantum Inspired Evolutionary Algorithm	International Journal of Applied Evolutionary Computation (IJAE), 2014.
C Patvardhan Sulabh Bansal Anand Srivastav	Quantum-Inspired Evolutionary Algorithm for Difficult Knapsack Problems	International Journal on Memetic Computing (Under revision)
C Patvardhan Sulabh Bansal Anand Srivastav	Solving the 0-1 Quadratic Knapsack Problem with a competitive Quantum Inspired Evolutionary Algorithm	Journal of Computational and Applied Mathematics, 2015.
C Patvardhan Sulabh Bansal Anand Srivastav	Towards right amount of randomness in Quantum-inspired Evolutionary Algorithms	Soft Computing (Under second revision)
Lasse Kliemann Ole Kliemann C Patvardhan V Sauerland A Srivastav	A New Quantum-Inspired Evolutionary Algorithm Computing Near-Optimal Low-Discrepancy Colorings for Arithmetic Progressions	Evolutionary Computing (Communicated)
C. Patvardhan, Sulabh Bansal, Anand Srivastav	Balanced Quantum-Inspired Evolutionary Algorithm for Multiple Knapsack Problem	International Journal of Intelligent Systems and Applications (IJISA) (Accepted) ISSN: 2074-904X (Print), ISSN: 2074-9058 (Online) (IF 0.10)
C Patvardhan V Prem Prakash A Srivastav	Novel fast heuristics for solving large instances of Euclidean Bounded Diameter Minimum Spanning Tree Problem	Journal of Computational and Applied Mathematics (Communicated in June, 2014)
C. Patvardhan, V. Prem Prakash and A. Srivastav	A Quantum-inspired Evolutionary Algorithm for solving the Quadratic Knapsack Problem	Joint International Conference on Applied Systems Research and XXXIII National Systems Conference, DEI, Agra, November 2009
C. Patvardhan, V. Prem Prakash and A. Srivastav	A Novel Quantum-inspired Evolutionary Algorithm for the Quadratic Knapsack Problem	Proc. of the International Conference on Operations Research Applications in Engineering and Management (ICOREM), Tiruchhirappalli, India, May 2009, pp 2061-2064.

Lasse Kliemann C Patvardhan V Sauerland A Srivastav	Systematic Algorithm Design with Algorithm Engineering: Hypergraph Matching and Coloring	Joint International Conference on Applied Systems Research and XXXIII National Systems Conference, DEI, Agra, November 2009
C Patvardhan V Sauerland A Srivastav	Systemic Studies on Large Natural Systems: An efficient Quantum Evolutionary Algorithm for Marine CO ₂ –Simulation	Joint International Conference on Applied Systems Research and XXXIII National Systems Conference, DEI, Agra, November 2009
C. Patvardhan, V. Prem Prakash and A. Srivastav	Parallel Heuristics for the Bounded Diameter Minimum Spanning Tree Problem	IEEE INDICON, Pune, December 2014
V. Astuti K. Hans Raj A Srivastav	A Quantum inspired evolutionary computational technique with applications to structural engineering design	JCSE International Journal of Computer Sciences and Engg., Vol. 5, Issue 5, pp. 20-33.

Collaborative work done by Prof K Hans Raj with Kiel University

Dr. K. Hans Raj visited University of Kiel, Germany in the year 2005 and had spent a period of one month working on Evolutionary algorithms and their application to Hypergraphs. This resulted in a joint research paper along with Prof. Anand Srivastav of University of Kiel, Germany.

Ref.: K. Hans Raj and Anand Srivastav, “Evaluating the Discrepancy of Hypergraphs with Hybrid Evolutionary Technique”, International Conference on Differential Geometry and Topology in the Perspective of Modern trends (DGTPMT-2006), February, 18-19, 2006.

Dr. K. Hans Raj visited University of Kiel, Germany in 2006, 2008 and 2014 and during his visits he delivered seminars on Finite Element Modelling of Metalforming, Computer Aided Design of Aerostat, Computer Aided Design of Radome, Hybrid Stochastic search techniques and their application to optimization of manufacturing processes, and Quantum inspired algorithms with application to engineering design and optimization of manufacturing processes. He also delivered a talk on Three Qubit Modelling of Personality using extended Jung’s model at the department of Humanities, University of Kiel.

In future Dr. K. Hans Raj will collaborate with Prof. Anand Srivastav and Dr. Lasse Kliemann on difficult optimization problems of engineering design and process optimization whose fitness evaluation involves large finite element codes and multiple objective functions. He is also intending to work with faculty of humanities (Prof. Bober from Theology) at University of Kiel on modeling of personality with soft computing techniques (ANN, Fuzzy and Neuro-Fuzzy modeling) and correlation to professional competence including modeling of consciousness integrated personalities with Qubits and validation through psychological instruments and meditational practices.

Teaching and research cooperation of the Department of English Studies at Dayalbagh Educational Institute (DEI) (Deemed University), Agra, India, with the English Department at the Christian-Albrechts-University (CAU) at Kiel, Germany

Genesis

Dr. Bani Dayal Dhir as Co-Convener invited Prof. Dr. Anna-Margaretha Horatschek, CAU Kiel, Germany, as a speaker for the “Towards a Science of Consciousness 2013” - Conference at DEI (Deemed University) from March 3 – 9, 2013. During her visit to the department of English and an informal meeting with Prof. S.K. Chauhan (Head of Department), Prof. J.K.Verma, Dr. V. Prem Lata (Vision 2031 Coordinator), Dr. Bani Dayal Dhir, and other faculty members at the Department of English Studies at DEI, possibilities of cooperation were discussed tentatively.

PLAN FOR INTERNATIONAL STUDENTS AND FACULTY

First Initiative – “Indo-German Lecture Exchange Series- 2013”

As a first incentive for future cooperation, “Indo-German Lecture Exchange Series” was initiated during the winter semester 2013/14. Prof. Dr. Horatschek’s lecture “Constellations of Consciousness in British Literature from Shakespeare to the Present” was transmitted per live-stream from CAU to DEI.

Prof. Dr. A. Horatschek received funds from CAU Internationalisation Fund for collaborative projects with DEI and to visit DEI in March 2014. In May 2013, Prof. Dr. A. Horatschek applied at the CAU Internationalisation Fund for financial support of the negotiation and establishment of a program for collaborative projects; the DEI Department of English issued a Letter of Approval, suggesting a variety of areas for collaboration. The CAU Internationalisation Fund granted means for a student help (Hiwi), as well as the travel expenses (tickets, accommodation etc.) for Prof. Dr. A. Horatschek and Prof. Dr. J. Zimmermann to take part in the “Vision 2031-workshop at Department of English” at DEI in March 2014 as delegates of the CAU English Department. More funds are available to extend the cooperation in 2014.

Two Lectures by the guests from CAU, Germany, for the DEI faculty, PhD and Masters Students, with discussion.

Prof. Dr. A. Horatschek: “Concepts of Consciousness in East and West: A Very Short History of British Literature”

Prof. Dr. J. Zimmermann: “Slavery as a Transnational Phenomenon in US and Canadian Literature”

Indo – German Exchange lecture Series – 2014

As part of the exchange lecture series programme Dr Gurpyari Jandial’s recorded lecture was transmitted on consciousness studies and literature on 28th May 2014 for the Masters’ students of Department of English Studies, Kiel University.

In September transmission of one lecture on British literature and Consciousness studies from Kiel is scheduled and transmission of two lectures from the Department of English is planned.

Joint Editorship of ‘Literary Paritantra (Systems). An International Journal on Literature and Theory’
Prof. Dr. A. Horatschek and Prof. Dr. J. Zimmermann have joined the editorial board of the journal, which is published at DEI Department of English Studies.

Agenda and Vision Plan: Regarding Cooperation between the Department of English Studies at Dayalbagh Educational Institute (DEI) (Deemed University), Agra, India, and the English Department at Christian-Albrechts-University (CAU), Kiel, Germany.

It is the long term aim of DEI and CAU to design courses collaboratively and teach these courses per live stream in lectures and/or shared seminars, via faculty exchange, and/or in workshops at DEI or CAU attended by students from DEI and CAU. Many areas of overlapping interests in teaching have been found between DEI and CAU. These include British Literature (especially Modernism); North-American Literatures (especially Afro-American Literatures); Indian English Fiction; in the fields of Literary Criticism and Theory: Identity and Alterity Studies (Postcolonial Studies, Gender Studies, Women’s Studies); Indian Aesthetics; Neurotheology, Systems Theory; Consciousness Studies, Literature and Religion; Literature and Psychology; Literature and Mysticism; Eco-poetics.

Eventually the courses taught in cooperation shall form a part of the respective obligatory curricula of the DEI Department of English Studies and of the CAU English Department. Special attention has to be paid to problems of time schedules in India and Germany.

Shared Seminars

Seminars shared online can only take place during the winter semester due to the lack of overlapping semester blocks in summer. The first shared seminar of this format is scheduled for the winter semester 2014/15.

Teaching format

One Masters seminar per winter semester will be offered at DEI and CAU simultaneously. The topic will be taken from the overlapping fields of interest in DEI and CAU. They should fit into the curricula of the English Departments at DEI and CAU. Students in DEI and CAU will read identical texts. Three sessions during the overlapping weeks will be transmitted so that students in CAU and DEI can discuss prepared (seminar presentations, guiding questions etc.) aspects of the respective topic online. The capacities of the Computer Center will restrict the number of student participants to probably around 20.

Exchange of Graduate Students

1-2 students per year shall be sent from CAU to DEI, and from DEI to CAU for one semester. As the DEI Department of English Studies educates women exclusively, only women students are eligible for this exchange. The courses taken shall be mutually accepted for the respective curricula.

DEI will accommodate the exchange students from CAU in the women's hostel of DEI, a mentor will be assigned to them. The CAU will accommodate the DEI students in students' houses, a mentor will be assigned to them.

Funding possibilities from the German (DAAD, other funding institutions in Germany and India) as well as the Indian side have to be explored yet. If possible, the first students from CAU to DEI shall be sent in February/March 2015 for 2-3 weeks for exploratory studies

Joint Mentoring of Theses

Masters theses : Masters theses of CAU and DEI students which are of mutual interest shall be mentored and evaluated jointly by DEI and CAU faculty.

PhD theses : PhD theses of mutual interest for CAU and DEI shall be mentored and evaluated jointly by DEI and CAU faculty.

(D) Collaborative work done / planned by Prof K Maharaj Kumari with Kiel University

Prof K Maharaj Kumari visited Kiel University in June 2014. She delivered an Invited talk on "Aerosol Chemical Characterization: An Indian perspective" and had discussions for collaborative research with Prof. Hermann W Bange and Prof Bridget Quack and Prof. Christa Marandino of Marine Biogeochemie. They are interested in potential collaboration with us involving measurements in Indian Ocean.

Scientists of GEOMAR will be measuring trace gases that are commonly believed to be the precursors of aerosols in the marine environment, namely DMS and isoprene. They would like to see if there are any sulfate or secondary organic aerosols that we may measure in Agra that could be derived from the trace gases they measure. The typical back trajectories during monsoon, for our area, come from over the Indian Ocean. In addition, they are interested in how these gases, among others, are transported aloft by the convective center that sits above the Bay of Bengal, the air passes directly over central India. Therefore, we may be able to compare the two datasets and arrive at aerosol and trace gases transport chemistry.

PLAN FOR INTERNATIONAL STUDENTS AND FACULTY

RECON 2015

“DEI CAU Research and Education Connect – RECON 2015”

An Indo – German Workshop “DEI CAU Research and Education Connect – RECON 2015” was organized by Faculty of Engineering, DEI from February 17 – 19, 2015 at the International Seminar Hall Complex, DEI. The following were the visiting CAU Faculty:

Prof. Dr. Anja Pistor-Hatam, Vice President

Prof. Dr. Jeffrey McCord, Institute for Materials Science

Dr. Martina Schmode, International Relations

Prof. Dr. Jutta Zimmermann, Center of North American Studies

Prof Anna Horatschek, Department of English

Prof Anand Srivastav, Department of Computer Science

The workshop consisted of paper presentation sessions, campus visit, class visits, interaction with students to disseminate information about CAU and German education system etc. The Inaugural Session had presentation on DEI by Prof Anand Mohan, Registrar, DEI and on CAU by Prof Anja Pistor-Hatam, Vice President, CAU. Director, DFG, New Delhi had sent a message for the workshop as he was unable to come personally and the message was read out by his representative, Dr. Hariharan Krishnan. A Letter of Intent for collaboration was signed by DEI and CAU in the Inaugural Session.

The technical sessions were on English (2), Islamic Studies (1), DEI’s potential for Excellence in Consciousness and Entrepreneurship (1), Computer Science (1) and Electrical Engineering and Physics (1). 5 speakers presented their work from CAU side. 17 speakers presented their work from DEI side. The highlights were the presentations on DEI’s Potential for Excellence in Consciousness and Entrepreneurship which were appreciated by one and all.

In the valedictory session on February 19, 2015, the visiting delegates were effusive in their praise of the work they saw in DEI during the campus visit and the workshop presentations. They also appreciated the hospitality and the culture of DEI. The Vice President formally invited DEI for a visit to CAU.

The workshop provided an excellent opportunity for both parties i.e. DEI and CAU to explore potential areas of collaboration. Some areas have already been identified and many more ideas are being pursued. This workshop would be followed by a similar workshop at CAU, Kiel, Germany.