

## RESEARCH CENTRES

### Advanced Institute for Contemporary China Studies

With its focus on frontier research in China's social, economic, environmental and cultural developments, Advanced Institute for Contemporary China Studies (ACCS) is an integral part of our University's *Vision 2020*. Thanks to external donations, it also carries out a range of projects on Hong Kong history and Sino-foreign relations. Its members and fellows are all active researchers with extensive research networks and outstanding publication records.

ACCS now works closely with the Faculty of Social Sciences which strongly encourages transdisciplinary studies of cutting-edge creativity. In the coming years, it will pay particular attention to several major transdisciplinary research areas, including Sports and Public Health, Urbanization and Regional Economic Development, and Gender Issues and Contemporary Chinese Society. These initiatives synergize the existing strengths of departments under the Faculty and generate research-based undergraduate and postgraduate courses.

Moreover, the institute will continue to cultivate young scholars and post-doctorates through faculty-wide activities. In the long run, it will extend collaboration to other faculties by seeking their involvement in themes such as China Business and Contemporary Chinese Culture.

The ACCS conducts the following activities:

1. Elite Visitorship Programme for mainland and overseas scholars to visit HKBU;
2. Elite Visitorship Programme for HKBU staff to visit mainland institutes;
3. Post-doctoral Fellow and Honorary Research Fellow;
4. Consultancy and contract research for governments, social and community institutions, trade and industry associations and enterprises;
5. Conferences, seminars and workshops that promote transdisciplinary research and teaching.

### Asian Energy Studies Centre

The Asian Energy Studies Centre (AESC) (renamed in September 2014; previously the Hong Kong Energy Studies Centre) is a research centre of the Faculty of Social Sciences at Hong Kong Baptist University. AESC aims to be an internationally recognized hub for sustainable energy studies on the Asian region and adheres to the core governing principles of independence and transparency.

#### *Objectives*

We are committed to pursuing excellence in academic research in the areas of sustainable energy, with particular focus from the perspectives of governance in the Asian context. We promote informed energy decision-making and improve energy policies in the Asian region including Hong Kong in the following ways:

1. Creating new knowledge;
2. Providing practical policy recommendations;
3. Promoting knowledge exchange;
4. Facilitating stakeholder engagement; and
5. Undertaking interdisciplinary collaborative research projects and organizing academic workshops, public seminars and other engagement events.

#### *Research*

##### Working Paper Series

The AESC Working Paper Series aims to provide a forum for work-in-progress, conference papers, and early versions of papers to be submitted to international journals.

##### Research Fellows and Honorary Advisors

Scholars and industry professionals in the field of sustainable energy have been invited to serve as AESC Research Fellows and Honorary Advisors. We hope to reflect the multidisciplinary research field of sustainable energy studies and provide a platform to interact with the wider community on critical energy issues in the Asian context. To date, there are 24 Research Fellows and 2 Honorary Advisors. Some Research Fellows are based at internationally and nationally renowned institutions.

To learn more about AESC and our current research projects, please visit <http://aesc.hkbu.edu.hk/>.

### The Beijing–Hong Kong–Singapore Joint Centre for Nonlinear and Complex Systems

The Centre was established to provide a template to integrate the regional strength for collaborative researches on important problems in nonlinear and complex systems. Four regional institutions, Beijing University, Beijing Normal University, Hong Kong Baptist University and National University of Singapore participated in the joint centres. Since July 2012, the Centre has become one of the constituent research centres of the newly established Institute of Computational and Theoretical Studies.

### Centre for Applied Ethics

The Centre for Applied Ethics was formally inaugurated on 13 May 1992. It is the first of its kind to be established in China and one of the first in Asia. The development of ethical centres is urgently needed in Hong Kong as it is undergoing unprecedented rapid economic and socio-cultural changes. There is a real problem of ethical tension and disorientation. Although there are similar centres in Europe and North America, the results of their research are not always immediately useful to Asian societies in general and to Hong Kong in particular. At the same time, their social-ethical issues are not always the same as ours. The Centre, while seeking to formulate ethical solutions on the basis of universal principles, will be culturally sensitive in its endeavours.

#### *Missions*

1. To stimulate critical thinking about fundamental ethical concerns in contemporary society
2. To raise awareness of moral values
3. To further strengthen the University's commitment to research and whole-person education

#### *On-going Research Programmes*

1. Cross-Cultural Bioethics
2. Cross-Cultural Ethics of War and Peace
3. Confucian Ethics in Cross-Cultural Perspectives

#### *Major Publications*

1. *Chinese Just War Ethics: Origin, Development, and Dissent* (2015)
2. *The Common Good: Chinese and American Perspectives* (2013)

3. 《生命倫理學的中國哲學思考》(2013)/ *Bioethics: A Reflection from Traditional Chinese Philosophy* (2013)
4. Focus Section on Just War in Classical Chinese Thought, *Journal of Religious Ethics*, Volume 40, Issue 3 (September 2012), pp. 404-446, 447-472 and 473-502 (all three essays in the Focus Section are authored by our Centre researchers).
5. *Ritual and the Moral Life* (2012)
6. *International Journal of Chinese and Comparative Philosophy of Medicine* (1998–present)

## Centre for Child Development

The Centre for Child Development (CCD) was established in September 1991. The Centre is the first of its kind established in a higher institution in Hong Kong which signifies the recognition of the concern for our children. It also signifies the convergence of care for children from academics across various disciplines and people from different walks of life.

### Aims

As its goals, CCD works to: (1) initiate collaborative research on children, youth, families and schools; (2) disseminate research information on child development to academic and community professionals, policy makers, parents, and others interested in children and families; and (3) offer training and learning experiences to children, youth, parents and community professionals.

### Services

CCD strives to provide information and learning experience in ways appropriate and convenient for different audiences. The following are some examples:

1. For community professionals  
Newsletters, research reports, conferences and seminars.
2. For legislators and government agencies  
Consultation meetings, seminars, workshops, current research on child development.
3. For academic community  
Articles in professional journals, conferences, seminars, workshops, and current research on child development.
4. For parents, children and the public  
Informative pamphlets, media interviews, workshops on positive development and parenting issues, and educational programmes.

### Current Development

At present, the research focus of the Centre includes moral development, moral education and whole person education. Below are two ongoing projects:

1. Whole Person Development of Children: An Integrated Approach to Moral and Emotion Education in Kindergarten
2. How Human Relationships Affects Moral Decision: A Pilot Study

## Centre for China Urban and Regional Studies

The Centre for China Urban and Regional Studies (CURS) aims at conducting high quality research and cultivating academic exchange on China's urban and regional developmental issues. Research fellows of CURS include faculty members of the University from a variety of disciplinary backgrounds who share a common interest in urban and regional research on China. It is the objective of CURS to enhance the University's status as an academic hub for the study of China's cities and regions.

Research conducted by CURS research fellows covers a wide range of intellectual and policy-oriented domains: housing privatization and housing market segmentation, transportation and land use, regional disparities, environmental management and sustainable development, social problems and social service provision, cultural landscapes, inter-regional and rural-urban migration, social stratification, quality of life, and urban modelling, including the application of geographic information systems and remote sensing techniques in the study of urban and regional change. Centre directors and fellows have pioneered in several areas of China urban studies including residential change, housing preferences, built environment and behaviour analysis in Chinese cities, etc. Since founding, CURS has established collaboration with research institutions in Mainland China, Hong Kong, and elsewhere, such as the Centre for Urban and Regional Studies at Sun Yat-sen University (Guangzhou), the Center for Modern Chinese City Studies of East China Normal University (Shanghai), and the Center for Research and Planning of Smart Cities of the Peking University, the Centre of Urban Studies and Urban Planning of the University of Hong Kong, the Urban China Research Network of the University at Albany, New York, the Urban China Research International Network of Cardiff University, Wales, and the Urban and Regional Research Centre of the University of Utrecht, the Netherlands.

## Centre for Chinese Cultural Heritage

The Centre for Chinese Cultural Heritage is set up with the mission to develop researches in and to promote traditional Chinese culture, aspiring to be a centre of excellence in this field of study. The aims of the Centre are:

1. To foster researches in traditional Chinese culture;
2. To provide a platform for international academic exchange and collaboration in traditional Chinese culture;
3. To consolidate various research methodologies related to traditional Chinese culture; and
4. To promote traditional Chinese culture and arts to the community.

The Centre works closely with the Department of Chinese Language and Literature and other local/overseas academic institutes to organize international conferences and to encourage academic exchange at different levels. Internationally acclaimed scholars as well as postgraduate students will be invited to host lecture series and to have short-term studies.

"Literature and Religion" and "Classics" are the two main research themes of the Centre. For the former, the Department of Chinese Language and Literature has set a solid foundation by organizing a series of international conferences and published books on "Literature and Religion" since 1998, assuming a leading role in this field of research. The latter is chosen as a response to the recent swift resurgence in the study of classics, one of the most important research areas in traditional Chinese scholarship, in the mainland. Significant contribution in shaping the direction of the field has been made by our colleagues with their in-depth research and international fame, and the Centre will make use of the special position of Hong Kong to consolidate researches between China and the world. Besides research fellows from the Department of Chinese Language and Literature, renowned scholars are also invited to be visiting research fellows. The research outcomes will be published and the Centre seeks to build up a databank in the long run.

A culture transmission workshop is set up to promote traditional Chinese culture by organizing classes and seminars on *guqin* (古琴), *kunqu* (崑曲), classics, rituals and other forms of Chinese cultural heritage. It provides training in traditional Chinese cultural and art forms on the one hand, and develops a strategic platform for the transmission of Chinese cultural heritage on the other.

## Centre for Corporate Governance and Financial Policy

The Centre for Corporate Governance and Financial Policy was established in November 2004 by the School of Business. The mission of this cross-disciplinary centre is to improve the quality of public debates and policy on major corporate governance (CG) and related financial policy issues, and to promote best practice in the area. These will be achieved through high-quality research, publications, education, executive training, assessment, and consultancy activities covering Hong Kong, mainland China and other nearby economies. It aspires to be a centre of excellence on corporate governance in the region.

### *Major Activities*

1. Building the needed infrastructures and platforms for supporting various activities;
2. Promoting, assisting and undertaking in-depth academic and policy research on corporate governance and related financial policy issues;
3. Recruiting and promoting scholars and experts to participate in the Centre's activities and to facilitate scholarly exchanges;
4. Developing benchmarking and best practice guidelines for corporate governance;
5. Organizing and participating in forums, seminars and international conferences, etc. in Hong Kong and mainland China;
6. Organizing professional training and senior executive programmes for promoting and disseminating relevant knowledge and skills;
7. Undertaking consultancy projects and contracted studies;
8. Sponsoring and publishing quality research reports, journal articles, case studies, books, and working papers; and
9. Promoting exchanges and collaborations among academics, practitioners, research centres, corporations, professional organizations, regulators, policy makers, and other stakeholders.

### *Capacity and Competitive Edge*

Among all business schools in Hong Kong and in the region, HKBU seems to have the largest group of academics with an expertise in different aspects of corporate governance and financial policy. In the School of Business, there has been a Focused Research Area on corporate governance and financial reporting since 1999. These researchers come from different business disciplines: accounting, law, finance, economics and management. Most of them have extensive research, publication and consulting experience in the areas. For instance, they have published CG topics in leading international journals.

The School has successfully launched the MSc in Corporate Governance and Directorship programme in 2005. Via the Centre, these colleagues will be further linked together and their joint efforts will produce visible significant contributions to the teaching, research and consulting of corporate governance. It is expected that HKBU will become a truly cross-disciplinary centre of excellence in corporate governance.

### *Networks*

We will take an active approach to develop our local, China and international network, in order to enhance the relevance of our research work, and impacts of our research findings, policy recommendations and training programmes. Currently, the Centre is a founding member of an international corporate governance academic network consisting of 10 institutions.

## Centre for Geo-computation Studies

Geo-computation is "the Art and Science of Solving Complex Spatial Problems with Computers". It tries to enrich geography by using a variety of methods to model and analyse a range of highly complex, often non-deterministic socioeconomic and natural problems. The Centre for Geo-computation Studies (CGS) was established in 2009 to develop alliances between worldwide organizations, companies and individuals interested in geo-computation studies. The Centre also aims to advance the applicability and adaptability of geo-computation theories, methods and tools.

The basic objective of the Centre is to develop inter-institutional collaboration, knowledge sharing and joint research student education. Studies will be focused on advanced geo-computation and spatial analysis not only on their scientific principles, but also the implementation in related software research and engineering. The Centre will also undertake research in geo-computation applications used in studies of natural resources and the environment, as well as regional socio-economic development, by taking a multi-disciplinary approach.

### *Goals and Objectives*

1. To form a platform to integrate research in Hong Kong, the mainland and with international institutions.
2. To develop inter-department and inter-institutional collaboration in fields of computerized geographical analysis. The collaboration will greatly contribute to the advancement of GIS&T applications in broader application fields.
3. To establish joint postgraduate education programmes by developing joint research student scholarships and postgraduate programmes. The joint education programmes will broaden opportunities and improve efficiency in postgraduate studies.
4. To establish international collaborative links in the form of research partnerships and on-line knowledge sharing.

## Centre for Global Sport & Recreation Studies

### *Mission*

The CGSRS aims to create an integrated research and learning environment to produce relevant and timely research that analyze and resolve the challenges within the global sport and recreation industries and that promote sustainable community development.

### *Vision*

CGSRS's vision is to become an epicenter global of excellence for innovative and cross-disciplinary and cross-cultural research to sport and recreation industries by building connections among academia, local community and industry through research in Hong Kong and internationally.

### *Balanced Scorecard Objectives (BSO)*

#### Internal Process Perspective

1. Becoming a source for pertinent information for all affiliated faculty and student members.
2. Integrating various departmental and non-departmental faculty across the University into a collective intellectual community.

#### Learning Growth Perspective

1. Providing a platform to the junior staff to strengthen individual research profiles.
2. Improving knowledge, skills, and local and international partnership and networks of affiliated staff through joint research activities.



#### Customer Value Perspective

1. Explicitly focusing on interpretive research methods and critical theories of the body to bolster the research culture of the Department, the Faculty, and the University.
2. Contributing to the development of sport industry in Asia, especially in Hong Kong via academic research.

#### Financial Perspective

1. Boosting the number of publications in highly prestigious journals in the fields of sport and recreation management.
2. Generating funded grant proposals for research activities in the Centre.
3. Raising funds necessary to support the CGSRS's research activities and to attract excellent Masters, Ph.D. students and Postdoctoral researchers.

### **Centre for Health Informatics**

Continuous population growth/ageing and socioeconomic development have called for an urgent attention to the increasing demand for strategic development of e-health, covering clinical services, public and personal healthcare. The Centre for Health Informatics was established with the objectives to develop: (1) a critical mass with expertise on computational methodologies needed for advanced health IT (including big data analytics, multi-agent systems modelling, machine learning and ubiquitous computing); (2) a solid foundation in terms of (i) specialized computing environments and systems, (ii) collaboration experience with healthcare units and professionals (both local and international), and (iii) unique experience in delivering health IT training.

The Centre is directed by Prof Liu Jiming, Associate Dean of the Faculty of Science and Chair Professor of the Department of Computer Science.

### **Centre for Human Resources Strategy and Development**

The Centre for Human Resources Strategy and Development (CHRSD) was established in 2006 by the School of Business. The Centre's mission is to undertake academic and applied research on human resources (HR) management that produces insightful and practical guidelines for public decision makers and corporate executives alike. The Centre aims to speak to such issues as the impact of government policies on the quality of human capital, types of employment relationships, factors influencing the adoption of state-of-the-art management practices, and the impact of human resources practices on organizational performance. By conducting research on recent educational, employment and management issues, the findings generated and exposure during the process would offer practical and updated learning material for sharing with the professional community. The Centre also works with internationally known faculty and leading local consultants to deliver programmes and services that broaden the perspective and strengthen the skills necessary to prepare client companies to meet the challenges ahead.

#### *Mission*

The Centre for Human Resources Strategy and Development, a member institute of the School of Business of Hong Kong Baptist University, is a premier institute building excellence in human resource research and education. Our mission is to enhance the quality of human capital in Hong Kong and Mainland China by introducing and promoting state-of-the-art human resources management (HRM) practices.

#### *Objectives*

1. To undertake scientific and applied research in HRM;
2. To conduct policy research that stimulates intellectual discussion on current employment and related issues;
3. To publish and report the latest trends of best HRM practices;
4. To provide a platform allowing various stakeholders to exchange ideas and views on best management practices;
5. To facilitate the integration of theory and practice of HRM through interactions among researchers, business executives, and other stakeholders;
6. To transfer the state-of-the-art HR knowledge to practitioners through training and consultancy.

#### *Approaches*

#### Knowledge Discovery

1. Supports HR scholars to conduct research in HRM and related fields;
2. Collaborates with other institutes/centres and professional bodies, both locally and overseas, to conduct research and develop programmes to enhance HRM standards;
3. Conducts employment related surveys and research for organizations;

#### Knowledge Sharing

4. Organizes seminars, forums, conferences and symposiums that help disseminate state-of-the-art HRM practices to corporate leaders and HR professionals;
5. Holds public events to facilitate the sharing of best management practices among government officials, corporate leaders, academicians, and management professionals;
6. Publishes research reports, case studies, and executive articles relevant to HRM practices and employment policies;
7. Conducts annual pay-level surveys in Hong Kong and Mainland China;

#### Knowledge Transfer

8. Delivers educational or training programmes in response to the need of upgrading the competency of HR professionals;
9. Provides business and management consulting services to organizations in order to enhance their operational effectiveness and performance;
10. Assists business corporations to recruit and select senior HR executives and corporate leaders.

### **Centre for Mathematical Imaging and Vision**

Current developments in new image processing hardware, the advent of multisensor data fusion, and rapid advances in vision research have led to an explosive growth in the interdisciplinary field of imaging science. This growth has resulted in the development of highly sophisticated mathematical models and theories.

The Centre for Mathematical Imaging and Vision (CMIV) emphasizes the role of mathematics as a rigorous basis for imaging science. Emphasis is placed on innovative or established computational, mathematical and statistical techniques applied to vision and imaging problems in a novel way, as well as new developments and problems in mathematics arising from these applications. The CMIV serves two main purposes:

1. To promote basic and applied research in mathematical imaging and vision, computational imaging methods and image analysis and recognition;
2. To provide a research environment for faculty and graduate students with research interests in the aforementioned areas. Faculty members from various departments are involved in the CMIV and the CMIV facilitates their interaction with each other, domestic and international visitors from universities and industry. The CMIV is the site for several seminars and conferences for representatives from other universities.

## Centre for Media and Communication Research

Established in the autumn of 2001, the Centre for Media and Communication Research (CMCR) promotes and coordinates research on media and communication in the University. It identifies and conducts research of theoretical or applied value across all the sub-disciplinary areas of the School of Communication. The Centre is committed to quality and integrity in the research and activities it conducts.

Operation of the Centre is administered by a Director and two Associate Directors. Faculty of both the University and other institutions are invited to participate in various projects and activities arranged and organized by the Centre.

Projects and activities of the Centre are:

1. To promote and conduct research in and out of the School of Communication;
2. To organize symposia and conferences;
3. To bid for and to assist faculty to bid for research funding;
4. To publish research outcomes in local, regional and international venues in Chinese and English language;
5. To engage in academic exchanges with key sister institutions in Hong Kong, mainland China, Taiwan and overseas;
6. To identify new areas for research development; and
7. To publish a refereed journal, *The Chinese Journal of Communication and Society* (with CUHK) to foster cutting-edge publication in the field of communication and media.

CMCR takes on the role to foster the research community in the School. Its Research Programme is an initiative aiming to enhance faculty members' networks, attract reputable scholars for collaborative works, promote a rich and stimulating research environment, and to strengthen connections with the local and international scholarly and professional community. To that end, the Centre coordinates research projects related to media and communication such as cross-cultural communication, film, television and culture studies, public relations, advertising, branding, new technology and public opinion survey.

The funded research programmes may have the following possible results: organizing international workshops, seminars, symposia, and conferences; generating external grants and attracting international cooperation; and involving and nurturing strong collaboration between individuals, departments, schools, universities, regions, countries, and disciplines.

## Centre for Nonlinear Studies

The Centre for Nonlinear Studies was established to further interdisciplinary research in nonlinear science and complex systems. Since its inauguration in 1996, the Centre has been a meeting place of ideas for scientists from interdisciplinary research areas and has contributed to fostering research and education in nonlinear science in the region. The Centre holds a regular seminar series and has held workshops and conferences in nonlinear dynamics and complexity. There is also an active visitors' programme, and collaboration with many similar centres in the world has been established. Since July 2012, the Centre has become one of the constituent research centres of the newly established Institute of Computational and Theoretical Studies.

The research at the Centre has covered several directions in nonlinear science, such as statistical physics, condensed matter physics, biophysics, and nonlinear optics. Currently, the Centre focuses on combining the approaches of mathematical modeling, computer simulations and analysis of experimental or empirical data to achieve a more quantitative and global understanding of dynamical processes of various complex systems. One important research direction in the Centre is analysis and modelling of complex network structure and activity in neural systems in close

collaboration with neuroscientists, covering broad scales from network of neurons to interacting functional brain regions and cognitive performance.

The research activity in the Centre includes but not limited to the following topics:

1. Complex neural networks and structure-function relationship
2. Self-organized activity and information processing in complex neural networks
3. Complex brain activity and cognitive variability
4. Synchronization in complex networks
5. Individual vs. collective human dynamics

## Centre for Quantitative Systems Biology

The Centre for Quantitative Systems Biology was established to explore complex dynamic behaviours of biological systems and various regulatory processes in a quantitative manner. Instead of studying isolated individual components as in the reductionist approach of traditional biology, we seek a systemic approach by combining experiments, which simultaneously measure and analyse multiple components in a biological pathway/network, with computational modelling and theoretical analysis, in an attempt to achieve a quantitative and global understanding of cellular dynamics, organization and development.

The major goals of the centre include:

1. To develop advanced computational and modeling methodologies for analysing complex biological data;
2. To build a central web lab facility for live cell imaging and microbiology experimentation.

## Centre for Sino-Christian Studies

The Centre for Sino-Christian Studies was established in July 2001 to support advanced research in Christian studies in the Chinese context, and to augment academic exchanges with Chinese scholars from mainland China. Since the 1990s the importance of Sino-Christian studies has been widely recognized by leading academic institutions. Many similar research institutes have been recently established in mainland China and Taiwan. This trend clearly reflects the recognition within academia of the contemporary significance of the study of Christian thought, which is integral to European and other cultures influenced by Christian religions, and is considered to be integral to the renewal and modernization of Chinese culture. Being the only local tertiary institution with a strong Christian heritage and commitment, our university is well positioned to support this research centre in Sino-Christian studies. Consequently, our Centre continues to advance Christian scholarship and sustain the vitality of the University's heritage of Christian higher education within our distinctive Chinese cultural setting.

The Centre seeks to explore the meaning and significance of Christianity in modern and contemporary Chinese cultures and to promote inter-disciplinary dialogues between Christian studies and other academic disciplines as well as inter-religious dialogue within the current post-secular Chinese setting. It endeavours, as far as possible, to integrate theological, philosophical, historical, cultural and socio-political perspectives into its research projects, so as to provide a broad multi-disciplinary approach to Christian studies. It also aims to establish and coordinate regional and international networks of Christian studies within the "Cultural China" initiative. The Centre is a pioneer in the fields of "Christianity and Public Values", "Science and Religion Dialogue" and "Christianity, Sinology and Missionary-Scholars" in the region. For more than ten years, we provided special opportunities in Summer Schools for Chinese graduate students and young PhDs to interact with internationally known Christian scholars on various themes.

The on-going cross-cultural research programmes of the Centre include:

1. Civil Society and Christian Religion in Greater China
2. Justice and Charity in a Secular Age: Philosophical, Ethical and Theological Perspectives
3. Christian Family-Marriage Values and Secular Age Multidisciplinary Explorations
4. International Conference in Commemoration of the Fifth Centenary of the Birth of St. Teresa of Avila: "In Union with God: St. Teresa of Avila and the Contemporary World"
5. Ultimate Concern: Paul Tillich, Confucianism and Buddhism Conference
6. Chinese Christianity and its Spiritual Disciplines
7. Religious Dialogue between Christianity and other Chinese Religious Traditions
8. Modern and Contemporary Sinologists' Classical Translations and Chinese Works
9. Religion, Moral Development and Liberal Society

### Centre for Translation

The Centre for Translation (CTN) is a centre committed to academic research, to translation projects covering material from diverse fields, as well as to promoting the discipline of translation to match the rapid development and needs of the present day world.

The Centre aims to collect and preserve in its archives significant documents relevant to the promotion of the discipline of translation for study and research.

The Centre is established to make available translations mainly from English to Chinese and Chinese to English of archival, documentary, research and other related material. Through this important work, the Centre hopes to contribute to international research and scholarship, and to build up a body of work in translation previously inaccessible to scholars because of the language barrier.

Contributing to the work of the Centre will be:

1. Student research assistants;
2. Academics specializing in translation within the University;
3. International scholars and researchers in the translation field; and
4. Academics and scholars from related disciplines.

### Centre for Youth Research and Practice

The Centre for Youth Research and Practice was established in November 2005 to advance and synchronize research and practice in relation to youth studies and youth work. The Centre, though located in the Hong Kong Baptist University, does not restrict its research focus only on youth studies within the territory. Rather it has started to position itself as a centre of research significance in the East Asian region.

The themes of the Centre are three-fold, namely youth culture, youth policy and youth work practice. The work of the Centre includes: (1) to conduct research on selected youth issues which are related to the themes; (2) to organize conferences/seminars to promote professional/academic exchanges; (3) to provide training workshops on narrative therapy and other working approaches in relation to youth work; and (4) to publish research reports, working papers and training packages.

In the past years, the Centre has conducted training courses on narrative therapy and other counseling approaches for social workers and other helping professionals. In collaboration with the

Dulwich Centre in Adelaide, Australia, the Centre has launched a one-year Postgraduate Certificate in Narrative Practice since September 2011. A number of seminars on youth culture and youth service in Hong Kong have also been conducted for the local social work community. Besides, annual training workshops have been organized for social workers from the Taiwan Fund for Children and Families. All these training courses and seminars have received very positive feedbacks from amongst the professional community in Hong Kong. Besides, Fellows of the centre have also conducted research in the areas of youth deviant behaviour, cultural consumption among young people, school disaffection among secondary school students, review of youth services in Hong Kong, as well as social capital and social exclusion of young people. Centre Fellows have also conducted commissioned research projects for Government departments in Hong Kong and Macau as well as various NGOs in Hong Kong.

### Chemical Testing Services

The Chemical Testing Services (CTS) is established under the Faculty of Science, Hong Kong Baptist University. CTS serves the community with aims to provide sorts of chemical analyses through the state-of-art instrumentation and equipment. CTS is developed and led a group of by distinguished professionals and scientists with positive culture.

### Comparative Governance and Policy Research Centre

The Comparative Governance and Policy Research Centre (CGPC) was established in June 2009. By the endeavour of department colleagues, the Department of Government and International Studies (GIS) has developed its research strength in the area of comparative policy research. Besides getting well-known by developing academic programmes, the Department proposed to establish the CGPC which can let the community further understand the research focus of the Department. In addition, with the establishment of the Centre, it is hoped that the Centre membership can be offered that will enhance the Department's ability to compete for government and non-government policy research.

#### Goals

The Centre is established to provide a branding platform for research and consultancy to the members of GIS Department, its affiliated and associated colleagues in academia and the community. It also enables and enhances co-operation and management of resources for research and consultancy inside HKBU and in the outside community.

#### Objectives

To promote better governance by:

1. Providing an institutional, organizational and managerial platform for policy-related international comparative research and for the dissemination of research results;
2. Promoting comparative policy research of global significance, with a special focus on policy of EU-Asian significance;
3. Promoting international comparative research methods;
4. Educating internationally oriented best-practice (quality assurance) and benchmarking (metrics of evaluation) policy research; and
5. Seeing international, governmental, academic, community and business partners to support, promote and employ programmatic research into public perceptions of and participation in public policy formulation, evaluation and reform.



## Consun Chinese Medicines Research Centre for Renal Diseases

Established in February 2015, the Consun Chinese Medicines Research Centre for Renal Diseases (CCRD) aims to boost research and development of Chinese medicines for the prevention and treatment of renal diseases, and ultimately benefit patients suffering from different kinds of renal and related diseases.

In addition to serving as a platform for innovative research on and development of preventative and therapeutic approaches for renal diseases, CCRD is committed to the nurturing of researchers and professionals, and dissemination and transfer of knowledge of new preventive and therapeutic approaches for renal diseases.

## Croucher Institute for Environmental Sciences

The Institute for Natural Resources and Environmental Management was established in 1996. It was selected by the Croucher Foundation and named as a Croucher Laboratory in celebration of the Foundation's 25th anniversary in 2004. The Institute has since been renamed as Croucher Institute for Environmental Sciences (CIES).

### Mission

CIES is dedicated to help build a better living environment by conducting research to provide information for the sustainable use and maintenance of natural resources, waste treatment, disposal and recycling. In addition, CIES employs integrated approaches to analyse and assess the risk of chemical pollutant exposure to human and environmental health in Hong Kong, the Pearl River Delta and South East Asian Region.

### Objectives

1. To monitor, analyze and develop diagnostic solutions for risk characterization and assessment of pollutant exposure on human and environmental health;
2. To expand and link up research activities between local and regional industries, relevant Government Departments and local tertiary institutions;
3. To promote environmental health and sustainability through knowledge and technology transfer by organizing international scientific conferences, courses and workshops.

### Affiliated partners

1. State Key Laboratory in Marine Pollution
2. Joint Institute of Environmental Science—Hong Kong Baptist University with Research Centre for Eco-environmental Science, Chinese Academy of Science
3. Joint Open Laboratory of Soil and the Environment—Hong Kong Baptist University with Institute of Soil Science, Chinese Academy of Science
4. Joint Open Laboratory on Pearl River Delta Environment Research—Hong Kong Baptist University with School of Life Sciences of Sun Yat-sen University
5. State Key Laboratory of Environmental and Biological Analysis

## Dr Stephen Hui Research Centre for Physical Recreation and Wellness

The Dr Stephen Hui Research Centre for Physical Recreation and Wellness was established and inaugurated on 27 December 1996. The University is the pioneer in the area of providing professional training for workers in the field of health fitness and recreational management. Since this is a new field not only in Hong Kong but also in the Asian countries, it is essential that research projects

be conducted in this area to generate data for teaching and to provide norms for information and comparison. The focus on the development of physical recreation is important because it represents both the means and the ends of achieving wellness and increased productivity. The establishment of the Research Centre would further enhance the linkage between research and instruction, as well as in the exchange of ideas and dissemination of research findings.

The major objectives of the Research Centre are as follows:

### Research

The focus on the development of physical recreation and wellness will be highlighted with research in the following areas:

1. Administrative system and policy on promotion and development of wellness through physical recreation—past, present and future as well as from a comparative perspective.
2. Acquisition of lifetime sports and recreation, and the role of school, national sports associations, clubs and other agencies.
3. Physiological implications of various lifetime sports and recreation and exposure to hypoxia environment on achieving wellness.
4. The prevention of obesity, cardiorespiratory diseases, aging and falls.
5. The incidence of injuries, physiological demands of various activities, and the influence of gender and age on various physiological parameters.
6. Development of sports and recreation facilities and programmes.

### Academic Programmes

An international conference will be held annually to promote the awareness of the importance of physical recreation and wellness. At the same time, it would also provide opportunities for exchange of ideas and interaction with overseas experts in this area. A referred edited book will be published on a biennial basis.

A SCI index journal is published biannually through the Centre with the Director as the Chief Editor.

A certificate course entitled Certificate in Fitness Instruction is jointly organized by the Centre and the School of Continuing Education, registering under the Qualification Framework (QF) as level 2. And a Community Sport Club Management Programme is offered in conjunction with the Leisure and Cultural Services Department, the Government of the Hong Kong Special Administrative Region.

### Environmental Chamber

CPRW has Hong Kong's largest Normobaric Hypoxic Chamber to further promote the development of hypoxia-related research. By regulating and controlling oxygen concentration, the Chamber can stimulate the environment of various altitudes, e.g. it can stimulate an altitude environment equivalent to 5,000 m within four hours. The Chamber is used for the study of human performance and the impact on human beings under various oxygen concentration levels, including elite sports training, effectiveness of exercise programmes and control of excessive weight gain and obesity. Apart from physical training, the Chamber can also be used as an "altitude tent". The environment chamber will facilitate research on the effects of living and sleeping in a simulated altitude environment.

### Professional Services

The Centre can also provide professional consultation on specific projects if requested.

## High Performance Cluster Computing Centre

Located in Hong Kong Baptist University, the High Performance Cluster Computing Centre (HPCCC) was established in the beginning of 2003, with the support from Teaching Development Grants of Hong Kong University Grants Committee, Dell Corporation (Hong Kong), Intel Corporation (Hong Kong), and Faculty of Science, HKBU. Its purpose is to provide a learning and research facility for students from various academic institutions in Hong Kong on the subject of parallel/distributed computing.

## HKBU–UIC Joint Institute of Research Studies

The HKBU–UIC Joint Institute of Research Studies (JIRS) was established jointly by the Hong Kong Baptist University and the Beijing Normal University–Hong Kong Baptist University United International College (UIC) in July 2008. It aims to create research and postgraduate training opportunities for both institutions, through which they can complement one another in research and development. Specifically, JIRS aims to facilitate and enhance co-operation and collaboration in graduate studies, research and development between (1) HKBU and UIC, and (2) JIRS and research institutes in mainland China and overseas.

### *Research Postgraduate Programmes*

JIRS is responsible for managing the MPhil and PhD programmes of HKBU in UIC. Academic staff of HKBU and UIC who are appointed as JIRS Fellows could be the principal supervisor(s) or co-supervisor(s) of the MPhil and PhD students stationed at UIC. The research degrees are awarded by HKBU.

### *Other Activities*

JIRS also provides post-doctoral posts for HKBU and UIC. It endeavours to initiate, host, organize and manage academic conferences, seminars and meetings for HKBU, UIC or any other research institutes of international repute. Consultancy work for external organizations and commissioned work on approved projects will be carried out.

For more information, please visit the following web site at <http://uic.edu.hk/jirs>.

## Hong Kong Chinese Medicine Clinical Study Centre

The Hong Kong Chinese Medicine Clinical Study Centre (CMCS) was established in June 2014. The only centre which focuses on Chinese medicine clinical trials in Hong Kong, CMCS is a dynamic centre for developing and implementing innovative models of clinical research in integrative and Chinese medicine.

The scope of CMCS includes clinical trial design and implementation, new drug discovery and screening, formulation of clinical practice guidelines, and development of strategies for standardization of traditional Chinese medicine. The two current focuses of CMCS are: providing multidisciplinary health professionals with a synergistic collaboration platform to conduct high quality Chinese medicine clinical trials across a wide range of therapeutic areas, integrating pharmacological, biological and clinical research, and seeking to develop new drugs for gastrointestinal, orthopedic, metabolic, cancer and dementia diseases.

## Hong Kong Organic Resource Centre

To cope with the increasing demand for healthy food and environmental protection, many countries have been actively developing organic farming since the 90s. In view of this international trend and coupled with the shrinking growth of the local farming industry owing to urbanization and economic transition, the Government has thus been assisting the local farming industry to develop local organic farming since 2000. A new direction has therefore been formed leading the farming industry into a new market with higher returns. In order to promote organic farming towards a healthy and fast-growing market, a set of organic standards and certification system for organic farming is needed. With funding supports from the Agricultural Development Fund of Vegetable Marketing Organization, the Hong Kong Organic Resource Centre was hence established in December 2002. It is the first organization which is set up under the Agricultural Development Fund in establishing local organic certification system in order to promote the development of organic farming. Since March 2012, the certification system managed by HKORC has obtained the IFOAM (International Federation of Organic Agriculture Movements) and ISO65 accreditation.

We envision our Centre as an organization with the devotion in increasing the awareness of farmers, consumers and the general public about organic products, the role of certification in the production and marketing of organic products and in promoting the sustainable development of organic farming and aquaculture in Hong Kong so as to ensure a safe and quality food supply and an ecologically balanced living environment for our future generations.

We serve with professionalism, dedication and unselfishness in:

1. Establishing and operating a set of fair, impartial and transparent organic standards and certification system for the organic community;
2. Providing technical support, trade and marketing information to the organic sector; and
3. Educating the consumers and the public about organic products, organic production and organic certification.

## Institute of Advanced Materials

The Institute of Advanced Materials (IAM) is a research institute that places specific emphasis on optical and electrical properties of advanced materials that would have potential applications in optoelectronics, bio-medical and environmental areas. The Institute will focus research on advanced materials and nano-materials which are expected to play an increasingly important role in the future.

It comprises the Centre for Advanced Luminescence Materials (CALM) and a Surface Analysis and Material Characterization Laboratory. The Institute carries out research in novel materials, device design and material synthesis with advanced analytical equipment to study the physical properties and information of the structural and chemical integrity of the materials. Presently IAM is working on organic electronics, transparent conducting oxides and photonic materials.

### *Centre for Advanced Luminescence Materials*

The Centre for Advanced Luminescence Materials is part of IAM and focuses on research in advanced luminescence materials.

Luminescence materials are one of the corner-stones in the development of information technology. In recent years, novel organic luminescence materials have been developed for display and other applications. Such development requires interdisciplinary collaboration, in particular between physics and chemistry.



Presently our research includes both fundamental understanding and synthesis of advanced luminescence materials and close collaboration with Hong Kong industry, to develop/transfer technology to them. These include organic LED device materials, transparent conducting oxides, LED phosphors, organic PV and organic electronics.

The CALM has three internationally renowned scientists in this area as advisers:

1. Prof Peter Yu of University of Berkeley, at Berkeley, California, USA
2. Prof Claude Weisbuch, Ecole Polytechnic, Paris, France
3. Prof Ching W Tang, Rochester University, Rochester, USA; The Hong Kong University of Science and Technology, Hong Kong

#### ***Surface Analysis and Material Characterization Laboratory***

The laboratory was established to facilitate research and to provide to local industries in surface and materials characterization.

Currently, the Centre has two laboratories housing a high resolution Transmission Electron Microscope (TEM) with Energy Dispersive X-ray Spectrometer (EDX) and Electron Tomography attachment for 3-D imaging, a high resolution Scanning Electron Microscope (SEM) with EDX, an X-ray Diffractometer (XRD) for powder and thin film samples and an X-ray Photoelectron/Auger Electron/Ultra-Violet Photoelectron Spectrometer (XPS/AES/UPS). Using these versatile facilities, it is possible to perform a thorough characterization of the material by chemical and compositional analysis, elemental imaging, microscopy and structural determination.

#### **Institute for Advancing Translational Medicine in Bone and Joint Diseases**

The Institute for Advancing Translational Medicine in Bone and Joint Diseases (TMBJ) was established in September 2012 to create a collaboration platform for scientists of the School to work in synergy with those of the Faculty of Science to efficiently and effectively translate basic scientific findings into clinical applications that would benefit patients suffering from bone and joint diseases. With its rich academic resources comprising both expertise and infrastructure, TMBJ collaborates with the industry to conduct cutting-edge research leading to the development of innovative biological reagents, therapeutic agents, bio-imaging modalities and advanced biomaterials for the diagnosis, prevention and treatment of bone and joint diseases for clinical trials and commercialisation.

TMBJ aims to bring scientific knowledge and research findings “from the bench to the bedside”, and improve the quality of life for patients suffering from bone and joint diseases all over the world.

#### **Institute of Computational and Theoretical Studies**

The Institute of Computational and Theoretical Studies was established to enhance inter-disciplinary research on computational and theoretical studies, and attract overseas research groups for collaborative research, so as to create a critical mass which can conduct research of higher impact.

##### *Objectives*

1. To create a bigger research platform with different research groups to facilitate inter-disciplinary group research;
2. To attract more international/regional scholars for collaborative research;

3. To organize academic exchange activities more effectively building on existing research strength;

##### *Establishment*

The Institute of Computational and Theoretical Studies was formed by consolidation of the following research centres established by the University and the Faculty of Science:

1. The Beijing–Hong Kong–Singapore Joint Centre for Nonlinear and Complex Systems
2. Centre for Health Informatics
3. Centre for Mathematical Imaging and Vision
4. Centre for Nonlinear Studies
5. High Performance Cluster Computing Centre
6. Peking University–Hong Kong Baptist University Joint Research Institute for Applied Mathematics
7. Research Centre for Ubiquitous Computing
8. Statistics Research and Consultancy Centre
9. Centre for Quantitative Systems Biology

##### *Major Activities*

The Institute with team members in a variety of research areas works together to enhance inter-disciplinary research, strengthen and widen collaborations with local and overseas universities and research institutes. Various exchange activities are organized:

1. Invitation of prominent scholars as visiting research scholars in related disciplines from overseas countries for sharing and exchange in research.
2. Establishment of partnerships with international research institutes/universities for joint and collaborative research.
3. Establishment of joint research institutes with research centres, universities or companies in mainland China for collaborative research and expansion of the funding sources of research grants via research partners in China.
4. Organization of workshops and conferences on identified inter-disciplinary research themes to provide sharing opportunities between international scholars and local academics, university students, researchers, scientists.
5. Organization of seminars for university students, secondary school principals and students to promote interests of participants in science and update participants on new developments of inter-disciplinary science disciplines.

#### **Institute of Creativity**

The Institute of Creativity was established in March 2011. It is a major effort of the University to nurture interdisciplinary research and creative work. The institute is supported by present and future donations including a recent donation of \$100 million from the Hung Hin Shiu Charitable Foundation Limited.

Creativity is crucial not only in academic disciplines but in all spheres propelling the development and enhancement of our civilization. It lies at the heart of the advancement of science, technology, business, humanities, social sciences, and society at large. Outstanding creative people who excel at innovation tend to differ from others in that they have a high level of intellectual power to breakthrough, to cross boundary, to amalgamate, to be imaginative, to push frontiers and to foster far-reaching vision, and they are capable of diverse ways of thinking. The above brings the important linkage between creativity and education, because the latter is the cradle of the former while the former is the fruit of the latter.

With a vision to become the leading higher education institution for creativity, the Institute of Creativity will strengthen the research culture, nurture a critical mass of research talent, sharpen the research performance and further promote the development of interdisciplinary research and theme-based research on campus.

Led by well-renowned scholars in different academic disciplines, outstanding business leaders and successful entrepreneurs in different business sectors, elites in other various industries, the Institute will be a high-powered think tank where students, researchers and faculty members of the University can interact and exchange ideas with them.

#### *Objectives*

1. To provide a home and workplace for eminent scholars to pursue enduring knowledge in diverse academic disciplines;
2. To promote the necessary link between top-level cutting-edge research and teaching;
3. To serve as a regional hub for knowledge transfer;
4. To spearhead both fundamental and applied research relevant to the region's socio-economic development, and address societal concern; and
5. To nurture gifted students and excite public interest in the latest discoveries.

#### *Initial Research Topics*

1. Development of new drugs based on traditional Chinese medicine
2. Study on Chinese classical learning and sinology
3. Research on chemical technologies and new materials
4. Computational and theoretical studies
5. Cross-cultural studies

### **Institute of Integrated Bioinformedicine and Translational Science**

Established in June 2015, the Institute of Integrated Bioinformedicine and Translational Science (IBTS) is committed to the promotion of precision medicine and translational medicine to enhance health management for the people in Hong Kong, mainland China and all over the world.

It seeks to establish a collaborative platform to facilitate multidisciplinary research to achieve better healthcare. Through integrating the academic, clinical and industrial resources, IBTS aims to build a partnership network for collecting and managing clinical, biological and environmental big data, which enable the researchers to develop models, networks, and approaches for providing predictive, preventive and personalised healthcare services.

### **Jao Tsung-I Academy of Sinology**

Since its formation in 1956, the University has continued to grow in size and status to become one of the top research-led institutions in the area of Sinology and Chinese classical learning in Hong Kong. We have built an enviable reputation by our impressive research profile and experience in the area over the past decade. In 2011, the University established the Institute of Creativity (IOC) where the area of Sinology and Chinese classical learning is one of the five fields of cross-disciplinary emphasis. In the same year, the Mr Simon Suen and Mrs Mary Suen Sino-Humanitas Institute (SHI), where Professor Jao Tsung-I serves as Honorary Consultant, has been set up in order to enhance the research of Sinology and Chinese Studies in China.

In order to maintain its position as the major centre for the research of Sinology and Chinese Studies, the University established the Jao Tsung-I Academy of Sinology in January 2013, with Professor Jao serving as Honorary Permanent Director of the Academy. The Academy serves a unique role in promoting classical Chinese studies by integrating expertise in the various disciplines of Sinology, from classical philology to comparative and theoretical approaches, ranging over every aspect of traditional Chinese culture.

The Academy is committed to become an intellectual hub in Sinology that encourages interaction between Chinese scholars and sinologists around the world, and at the same time, to cut across disciplines to facilitate innovative research and intellectual development throughout the University. It also puts strong emphasis on the development of intellectual talents and is determined to cultivate the cultural disseminators and profound Chinese thinkers of the 21st century and of the future.

### **Joint Institute of Environmental Sciences of Hong Kong Baptist University and Research Centre for Eco-Environmental Sciences, Chinese Academy of Sciences**

The Joint Institute was established in 2002 to strengthen environmental research and to enhance the collaboration between Hong Kong Baptist University (HKBU) and the Research Centre for Eco-Environmental Sciences (RCEES) of the Chinese Academy of Sciences. The Joint Institute is a truly interdisciplinary research unit, with more than ten faculty members from the Departments of Biology, Chemistry and Mathematics and School of Chinese Medicine of HKBU participating in its research activities.

Specific collaborative programmes are listed as follows:

1. Joint supervision of research postgraduate students in areas of environmental sciences.
2. Joint educational programme of MSc in Environmental and Public Health Management and Environmental Analysis.
3. Establishment of a joint eco-environmental station.
4. Joint collaborative research between colleagues of HKBU and RCEES.
5. Exchange and visit of faculty members and research postgraduate students.
6. Joint sponsorship of workshops, seminars and conferences.

### **Modern History Research Centre**

The Modern History Research Centre (MHRC), which is housed in the Department of History, was formally established in January 2002. In the field of historical studies, modern history has become a clear direction of development. Between Eastern and Western cultures, Hong Kong serves as an intellectual bridge between China and the West. With hard work by generations of historians of this university in the last few decades, the Department has earned a reputation as an innovative unit in the pursuit of historical scholarship in Hong Kong, especially in the field of modern history. The faculty members of the Department are also the Research Fellows of the Centre. Moreover, a number of senior scholars from mainland China, Taiwan, USA, Canada, UK, Australia, Japan and Singapore have indicated their interests in joining the Centre as Honorary Fellows.

The Centre builds upon the existing research strengths of the Department and develops research projects in the following areas:

1. Modern intellectual history
2. Modern cultural history
3. Sino-foreign relations
4. Hong Kong history
5. Asia Pacific studies

Regular publications of the Centre includes a research newsletter and a series of occasional papers. The Centre will actively look for grants, sponsorships and donations to support its research projects, publications and academic activities, including seminars and conferences.

## Mr and Mrs Ko Chi Ming Centre for Parkinson's Disease Research

Established in October 2014, Mr and Mrs Ko Chi Ming Centre for Parkinson's Disease Research (CPDR) is a centre for translational and clinical research in Parkinson's disease and other neurodegenerative diseases which aims to develop new drugs for preventing and treating neurodegenerative diseases including Parkinson's disease using Chinese medicines.

CPDR adopts Chinese medicine perspectives and findings from long-standing clinical practice as the fundamental basis for pharmacological studies of neurodegenerative diseases including Parkinson's disease and their etiology and pathogenesis. It endeavours to discover more effective and non-toxic or less toxic drugs through integrating the application of molecular/cell biology and pharmacology techniques to benefit patients suffering from Parkinson's disease and other neurodegenerative diseases. Through collaborations with top global and national/world-class institutes in China and the world, CPDR aims to become an excellent platform to integrate Western and Chinese medicine and transform basic research into clinical applications, and serve as an innovative research and development base for training professionals.

## Mr Simon Suen and Mrs Mary Suen Sino-Humanitas Institute

There is an urgent need for greater exchange between Western Sinology and traditional Chinese learning in the global academic community. The Sino-Humanitas Institute (SHI) aims to promote international Sinological research and exchange between Chinese and foreign scholars. With the generous support of a donation from the chairman of the SML Group, Mr Simon Suen, and Mrs Mary Suen, a development fund was set up to sponsor the activities of the institute and related research projects.

SHI was established in 2011 with the following objectives:

1. To promote Sinological scholarship at Hong Kong Baptist University;
2. To collaborate with academic and cultural institutions in mainland China and throughout the world, to promote the values of traditional Chinese civilization and establish a forum for scholarly dialogue; and
3. To increase understanding of Chinese civilization in Hong Kong society.

In order to bring together world distinguished scholars at HKBU and provide a platform for academic exchange, SHI organizes international symposiums and public lectures by prominent researchers and promising young scholars, inviting them to share their valuable views, experiences and findings with our fellow staff and students. SHI also supports publication plans to help to promote classical Chinese studies and Chinese civilization within the community.

A group of world renowned Sinologists have been invited to serve as advisers of SHI (in alphabetical order of surname):

1. Professor David R Knechtges (康達維), University of Washington, USA
2. Professor Li Xueqin (李學勤), Tsinghua University, China
3. Professor Lin Ching-chang (林慶彰), Academia Sinica, Taiwan
4. Professor Michael Loewe (魯惟一), University of Cambridge, UK
5. Professor William H Nienhauser Jr (倪豪士), University of Wisconsin, USA
6. Professor Yu Ying-shih (余英時), Princeton University, USA
7. Professor Yuan Xingpei (袁行霈), Peking University, China

## Peking University–Hong Kong Baptist University Joint Research Institute for Applied Mathematics

Building upon a number of collaborations between scholars at the Peking University and the Hong Kong Baptist University, the Joint Research Institute for Applied Mathematics (JRIAM) was established in 2002 to conduct frontier research in applied mathematics, especially in the fields of scientific computing and statistics. The JRIAM aims to serve as a catalyst to develop China's mathematical and statistical infrastructure by mentoring young scholars and facilitating technology transfer from overseas to China. The JRIAM also aims to raise the profile of China's applied mathematics research.

The JRIAM has offices in both universities and comprises about a dozen faculty members from each of the two universities. Its activities are overseen by executive committees at each university. The main work of the JRIAM is collaborative research. To this end we support a number of PhD students, post-doctoral fellows and visiting scholars.

The JRIAM carries out collaborative research on a variety of topics, including:

1. Adaptive and spectral methods for numerical computation
2. Applied probability
3. Computational finance
4. Computational fluid dynamics
5. Multivariate analysis and data mining
6. Experimental design
7. Graph theory
8. High dimensional integration and approximation
9. Monte Carlo and quasi-Monte Carlo methods
10. Optimization and operations research

The JRIAM also sponsors conferences and workshops.

Please visit our website at <http://www.math.hkbu.edu.hk/JRIAM> for more information.

## Research Centre for Standardization of Chinese Medicines

Established in March 2015, the Research Centre for Standardization of Chinese Medicines aims to develop innovative QC of and standardization methods for Chinese medicines, promote the standardization of Chinese medicines, formulate standards using developed methods through collaboration with governments, and provide services to industries using standardized methods.

The researchers of CSCM provide expertise in scientific elucidation of macroscopic identification of commonly used Chinese materia medica, focus on the standardization of processed Chinese materia medica and processing methods, conduct comparative studies of chemistry and bioactivities of multi-sourced medicines, investigate into the active ingredients of Chinese medicines, and contribute to the studies of innovative methods for quality analysis of Chinese medicine decoction and polysaccharide-rich Chinese medicines. CSCM is committed to contributing to the standardization and globalization of Chinese medicines.

## Research Centre for Ubiquitous Computing

By February 2006, the research team led by Prof Joseph Ng from the Department of Computer Science, Hong Kong Baptist University together with members from the Hong Kong University of Science and Technology and the Hong Kong Polytechnic University has been funded by the Research Grants Council



(RGC) Central Allocation Grant to set up the Research Centre for Ubiquitous Computing in Hong Kong.

“Ubiquitous Computing” means the processing of any data at any time and anywhere through any network using any device. In order to realize ubiquitous computing, the research centre will focus on the research areas like location-aware computing, mobile data management, RFID/sensor networks, middleware, embedded systems software development, Ad Hoc/IPv6 Network and Mobile Agents/Mobile Services. The research centre aims not only at excelling in the research field, but also turning its research results into products and services which would benefit the industry and the society at large.

#### *Key Objectives*

We propose to bring together local talents in areas of Location-aware Computing, RFID/Sensor Networks, Middleware and Embedded Systems Software and form a research centre to facilitate ubiquitous computing in Hong Kong:

1. To excel in some focused areas related to ubiquitous/pervasive computing.
2. To co-ordinate and develop research activities towards ubiquitous/pervasive computing.
3. To construct test-beds based on different positioning technologies for testing and benchmarking and to develop software which becomes the common basic building blocks for ubiquitous/pervasive applications.

#### *Deliverables*

1. Report research findings through conferences, and journal publications.
2. Construct common test-beds and enhance existing test-sites for testing and benchmarking.
3. Technology transfer of research results to the commercial world through prototypes, patents, software licences, and software libraries.
4. Organize research activities which include regular seminars, invited technical talks, and workshops on ubiquitous computing.

### **Shum Yiu Foon Shum Bik Chuen Memorial Centre for Cancer and Inflammation Research**

In 2009, the School established the Centre for Cancer and Inflammation Research (CCIR) to investigate the causes of and novel therapeutic strategies for cancer and inflammatory diseases by integrating Chinese medicine and modern scientific technology, with the aim of making breakthroughs in research and contributing to health and well-being.

The Centre's efforts are currently focused on the following three major areas:

#### Basic science research, focusing on:

1. Molecular cancer biology and carcinogenesis of colorectal cancer, ovarian cancer, melanoma and liver cancer;
2. Metastatic cancer biology of the aforementioned cancers; and
3. Chronic inflammatory diseases, including rheumatoid arthritis and inflammatory bowel diseases.

#### Translational science/medicine research, devoted to treating cancer and inflammatory diseases by means of:

1. Chinese medicine;
2. Targeted therapies, including among others immunotherapy; and
3. Development of different drug delivery methods.

#### Clinical research, focusing on:

1. The design of clinical trials to evaluate the therapeutic efficacy of Chinese pharmaceutical products;
2. The carrying out of epidemiological and clinical studies to evaluate the therapeutic efficacy of herbal medicines alone or in combination with chemotherapy and radiotherapy; and
3. The establishment of a tissue sample library for the common cancerous and inflammatory diseases in Hong Kong.

### **Sino-Forest Applied Research Centre for Pearl River Delta Environment**

The Sino-Forest Applied Research Centre for Pearl River Delta Environment (ARCPE) aims to improve the environmental quality of the Pearl River Delta (PRD) region by creating a platform for various stakeholders in Hong Kong and PRD to tackle trans-boundary pollution problems at sources, advocating the governments on environmental policy, and providing solutions for the industries.

The mission of the Centre includes:

1. Developing a competent environmental team to tackle the environmental problems in Hong Kong and the PRD region;
2. Advocating environmental policies for the Government of Hong Kong; and
3. Training environmental professionals to serve as trainers to enhance the environmental awareness of the community.

With inputs from the established platform, the Centre will act as a regional centre to identify and provide practical solutions to solve the environmental pollution, waste conservation and recycling, and resources depletion problems in Hong Kong and the PRD region. It will also act as a technology transfer centre for the community and the industry, and provide policy advocacy and consultancy to the industry and Government.

Currently, the Centre is comprised of a number of research groups with expertise in the area of waste management and recycling, environmental monitoring and control, water and wastewater resource, and community environmental awareness and education.

The Centre will engage in a number of major research projects pertaining to the PRD industry environmental performance improvement programme, policy research, waste separation models for Hong Kong and South China region, treatment technology for organic waste, energy production from waste, waste as a resource for agricultural soil improvement in South China, water and wastewater resource, etc.

### **Statistics Research and Consultancy Centre**

The Statistics Research and Consultancy Centre (SRCC) was established in November 1992. Its main aim is to increase the knowledge and use of statistics both inside and outside the campus. The Centre has several objectives: (1) to promote research in both theoretical and applied statistics; (2) to provide consultancy services to the staff and students and to outside organizations; (3) to sponsor public lectures and short programmes; (4) to facilitate academic collaboration between local scholars and scholars from mainland China and overseas; and (5) to organize international conferences and workshops.

In the past years, the SRCC has successfully organized several international conferences such as the 9th International Chinese Statistical Association conference in 2013 with around 500 participants. The SRCC currently also pays much attention on collaboration so that the statistics can be applied to other areas. The collaborations include data analysis for chemistry and Chinese medicine and clinical trials and bioinformatics. The current research focuses of the SRCC are: empirical likelihood;

longitudinal data analysis; mixed effects models, statistical analysis for microarray data and big data. The SRCC regularly organizes a number of seminars and public lectures on the above research areas for the staff and postgraduate students of the University.