



Chinese Institute of Engineers

***The 2021 Development Strategic
of the Chinese Institute of Engineers***

Publisher : Chinese Institute of Engineers

April 27, 2012

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1. Preface

1.1 Foreword

The Chinese Institute of Engineers (CIE) was founded by Mr. Tienyou Zhan, known as the Father of China's Railroads, in 1911, and the year of the Republic of China (ROC) was first established. The year of 2011 was particularly meaningful, as it marked the centennial birthday both for the ROC and CIE while it was also the 60th year for CIE's relocation to Taiwan. To celebrate this significant milestone, CIE assembled the Organizing Committee on the CIE Centennial Celebration Convention more than one year ago, consisting of the CIE Past Presidents, Board Directors, Supervisors and the Presidents of affiliated institutes organize a series of magnificent activities for this Celebration including "The Online Poll to Vote for the 100 Greatest Infrastructures," "The Beauty of Infrastructure Photo Contest," "The Article Solicitation Contest on Engineering Sustainability," "The CIE Centennial Documentary Films," "The CIE Centennial Special Issue," organizes campus speeches delivered by engineering experts, international symposium and invitation to leaders of international professional organizations. Collaborated with the Public Construction Commission, Executive Yuan, this Institute to co-host "Virtual Museum of Taiwan Infrastructure" activity. Contemporaneously, the CIE held "The CIE Centennial Celebration & Joint Annual Convention" on June 3rd, 2011 which gathered about eight hundred people to witness the meaningful milestone.

It is a great honor for me to partake in this significant Celebration. During the preparations of the event, I had a lot of opportunities to meet and the seniors and fellows and gained the valuable suggestions and comments from seniors and fellows from different generations and professional areas. Many of them earnestly reminded us that the Centennial Celebration presents a great opportunity for engineers to reminisce on the contributions devoted by our senior engineers for this country, to revive the status of engineers through nationwide participation and campus activities, and to summon the passion and sense of honor of young students for the engineering profession.

"The CIE Centennial Documentary Film" and "The Special Issue" deeply inspired the engineers, as the projects entail not only the history of CIE over the last

century, but also the expectations that leaders from the engineering industry have for the development of engineering projects in the ROC. Those advices urged me to seriously contemplate the future development of the engineering industry and motivated me to compile this white paper for sustainable development of the CIE.

Historical reviews will prepare us for the future. With the experiences of the last century, how the CIE can create the next golden century for this country is not only the responsibility shared by all CIE members, but also the essential assignments for all engineers. This white paper serves as the pioneering achievement in the academic communities. It is the beacon of self-encouragement for all engineers and the catalyst for the CIE to enhance self-value to pursue sustainable development.

Lastly, I am grateful to the Past Presidents, Directors and Supervisors, and Chairmen of all committees for the valuable advices and comments. I am also appreciative of the editing staff for their selfless devotion and assistance in compiling this white paper. With your guidance, let us promote the CIE development towards our grand vision this Institute – 「Respecting to the nature and the ecological environment, Integration and innovation, Building a brighter future」



President
The Chinese Institute of
Engineers
December 30th, 2011

1.2 Framework of White Paper and Members of the Ad Hoc Committee

For the long-term development of this Institute, President John H. Lin (2010-2012) established the Ad Hoc Committee, started to compile the 「*The 2021 Development Strategic for Chinese Institute of Engineers*」, in order to set the direction and vision for sustainable development and the functions of few committees also readjusted for effective operation.

The Ad Hoc Committee, chaired by President John H. Lin, invite eminent commissioners including (in alphabetical order): Jizheng Chang, Simin Chang, Edward K. M. Chen, Larry L. G. Chen, W. Y. Chen, Yaosheng Chen, Yu Chen, Jennchuan Chern, Eugene Y.H. Chien, Yaochung Chiang, Chunyat Hsu, Anthony C. Ku, Nanhung Kuo, Hongyu Lee, John Chien-Chung Li, Hongchie Lin, Shyueching Lu, Shu Ju, Weiling Mao, Zachieh Moh, Chinder Ou, Chingpeng Shen, Fuhsheng Shieu, Chintay Shih, J. C. Tsou, Chungyu Wang, Hanming Xia, Yeongbin Yang, Chaochung Yu, John T. Yu, and Yuanyi Zeng.

The committee held several meetings and drawn up the 「vision」、 「objectives」、 「strategy」 and 「action plan」 through deliberative considerations and intensive discussions. For details on this framework, please refer to Appendix 1.

2. Status and Analysis of the Development of CIE

2.1 History

In 1911, Mr. Tianyou Zhan, the Father of Railroad of China, established Chung-Hwa Engineers in Guangzhou, China, the precursor of CIE, which was the first engineer organization in the Chinese history. By united several domestic engineering societies, the CIE become the most authoritative, professional and influenced institute in engineering sectors.

In March 1951, the CIE restored its operations, at an age when reconstructions for everything were urgently needed to transform into a modern country. The CIE has led engineers, followed the footsteps of senior engineers, shouldered up its responsibilities for the society, honored the ambition to repay the country with engineering and academic achievements, re-shaped them into solid faith and value, and accumulated invaluable yet intangible assets. Over decades, CIE has made contributions for national and economic development.

2.2 Members and Organizational Structure

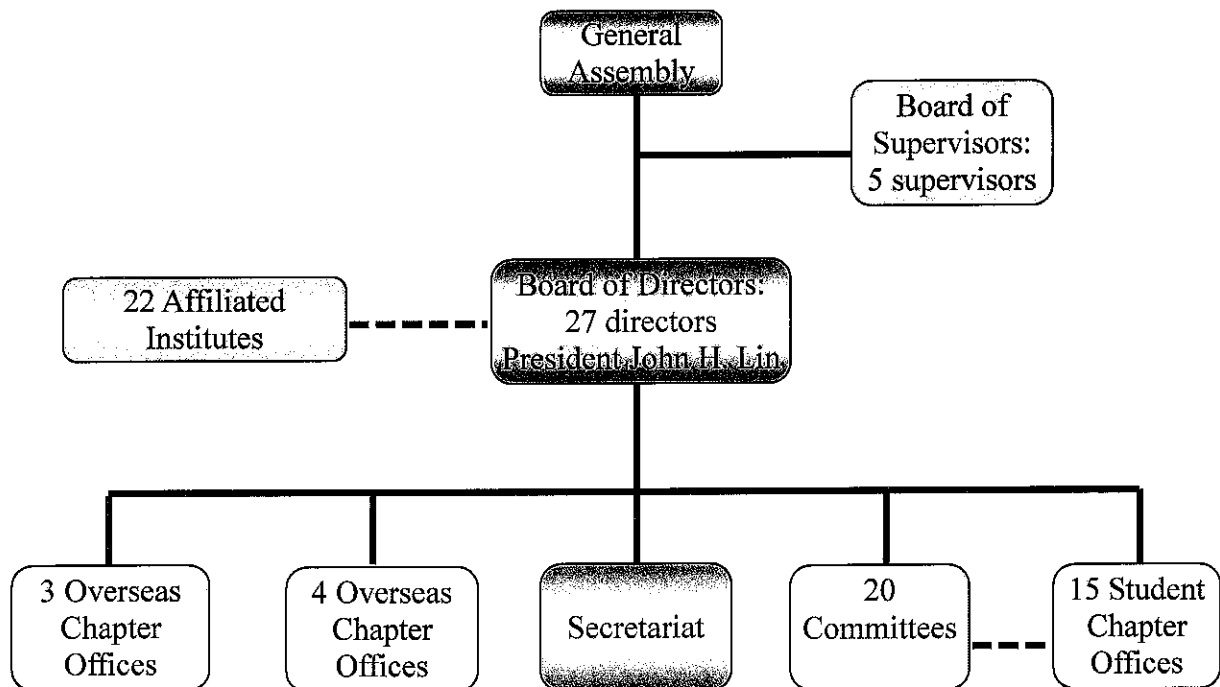
The CIE has more than ten thousand members spread worldwide and consists of professionals from the industry, academic communities, research institutions, and government organizations. To effectively promote domestic affairs, CIE sets up four local chapter offices in prime locations, including Taichung, Kaohsiung, Hualien, and Hsinchu. Additionally, it establishes overseas offices in Japan (CIE Japan, also called “The Taiwan Science and Technology Association” In Japan), the US (CIE/USA), and Europe (CIE Europe). All of them are operated independently, so as to collaborate with overseas Chinese engineers and foster international cooperation. To further attract young engineering talents, the CIE places a great emphasis on campus recruiting and establishing student chapter offices in 15 universities.

The supreme authority of the CIE is the General Assembly of all members. The authority of the Institute consists of a President, twenty-seven Board Directors, and five Board Supervisors.

This Institute is made up of 20 Committees, 4 local chapter offices, 3 overseas chapter offices, and 15 student chapter offices to help members gain ready access to the institute both in Taiwan and overseas.

CIE's operations are supported by a full-time secretariat. The secretariat is a task force set up to provide information and service to the members and to report to the Secretary General, who administers the daily running of the Institute from the headquarters in Taipei, Taiwan, the ROC.

CIE Organizational Chart



2.3 Major Activities

(1) CIE Centennial Celebration & Joint Annual Convention

The government has set up June 6th as the Engineer's Day (the birthday of Yu the Great.) In each June, the CIE organizes the Joint Annual Convention with affiliated institutes.

(2) Engineering medal

The CIE recognizes members with extraordinary academic and industrial engineering contributions and awards them with engineering medals every year. Only one member will be selected each year.

(3) Engineering scholarship

At present, the CIE has established "The Outstanding Engineering Student Scholarship" to select 10 awardees each year and "The Shen Yi Scholarship" to select

2 awardees every year to encourage young engineering students with outstanding academic performances.

(4) Engineering paper awards

The CIE awards excellent engineering papers” including “The Tien-You Zhan Paper Award” and “The Professor Yen-Ping Shih Engineering Paper Award,” annual assessment for one paper, and “The Engineering Paper Awards,” annual assessment for five papers.

(5) Excellent Young Engineers Award, Outstanding Engineer Award, and Outstanding Engineering Professors Award

CIE sets up “The Excellent Young Engineers Award,” “The Outstanding Engineer Award” and “The Outstanding Engineering Professors Award” to encourage members with outstanding performances in engineering academic research, engineering research development, engineering service and engineering education.

(6) Excellence in Engineering Projects Award and Excellence in Industrial-Academic Cooperation Award

CIE sets up “The Excellence in Engineering Projects Award” to and through public recognition to set demonstrative examples and to promote excellent planning and implementation of engineering projects. Also, to promote exchange among government and private organizations and industrial-academic cooperation, the CIE has set “The Excellence in Industrial-Academic Cooperation Award.”

(7) Organizing conferences, seminars and workshops on engineering themes

In order to facilitates the exchange of knowledge and experiences and enhances the public's understanding of engineering technologies, this Institute also frequently contact all professional engineering societies and affiliated domestic institutes to host or co-organize conferences, seminars and workshops on engineering themes.

(8) Modern Engineering and Technology Seminar

“The Modern Engineering & Technology Seminar (METS)” was first established in 1966 jointly by CIE and CIE/USA. METS is a once every two-year

event that brings engineers and scientists in the US and the ROC together for a weeklong seminar in Taipei. These series of seminars and workshops have successfully promoted mutual technology exchanges, and stimulated industrial advancement in ROC that eventually created the economic “miracle.” METS has also played a vital role in introducing world-class talents to serve in or even start up high tech enterprises in the ROC in the past.

(9) Sino-Japanese Modern Engineering and Technology Symposium

“The Sino-Japanese Modern Engineering and Technology Symposium” was first established in 1980. The Symposium is a once every two-year event and more than one thousand professionals from government agencies, industries, academic and research institutions are invited from Japan so far to exchange views and experiences on engineering related issues.

(10) Publications

“CIE Bimonthly” is a bimonthly Chinese publication, serves as a platform for this Institute to disseminate organizational updates and share knowledge pertaining to industrial engineering technologies.

“E³ News” is an English e-news publication that enables this Institute to promote the performance in economic and industries developments as well as the achievements in engineering technologies of the ROC.

“Journal of CIE” is a bimonthly English journal which is an important platform for domestic and international engineering scholars to publish academic engineering papers.

(11) Strengthening the interactions and cooperations with international professional organizations

CIE is one of the founding members of the World Federation of Engineering Organizations (WFEO). It participates in the activities and events of the Federation every year to share and exchange knowledge for international engineering-related knowledge and contribute to the internationalization for the engineering communities of the ROC..

In addition, the CIE is appointed by the Public Construction Commission, Executive Yuan of the ROC as the solely authorized organization to handle APEC

Engineer and Engineers Mobility Forum (EMF) affairs in the ROC. “The Chinese Taipei APEC Engineer Monitoring Committee” and “the Chinese Taipei EMF Monitoring Committee” of this Institute handle and promote international engineer mutual recognition system and engineer qualification accreditations to enable professional technologists’ qualification of the ROC to attain the goal of internationalization.

2.4 Challenges and Expectations

(1) Gap of quality engineering talents

Engineers’ cultivation, in addition to having professional literacy and technology, emphasizes on shouldering all kinds of social responsibilities. There had been several times that our senior engineers have pointed out regretfully: young students’ passion about engineering is not as much as before, and this is not only the CIE’s crisis of talent gap, a potential threat to the country, but the responsibility shared by all members of the engineering circle, including you and me.

(2) Authorization and support from government

Due to the ROC’s sensitive status in the international community, promoting international affairs through non-governmental organizations (NGOs) is necessary. However, CIE is a non-profit academic organization. Restrained by limited financial resources, the CIE has been, under the insufficient human resources, implementing engineer certification, assisting engineers in developing international operations and mutual acknowledgement, organizing international seminars and symposia, and establishing contacts with international engineering organizations and other similar affairs.

In order to, on the existing foundations, enhance international collaboration’s diversity, continue to expand global influence, if this Institute can obtain guidance, delegate and support, it will be extremely beneficial for the CIE and all academic groups.

(3) Enhancement of engineering ethics ; the deterioration of influence and status of engineer

The increasing natural disasters and severe engineering accidents in recent years have been harshly damaged t morale and image of engineers. Therefore,

engineers have to be more vigilant, humble to learn from experiences and seek truth from facts so as be able to face the challenges in the future.

In addition, in a democratic-valued environment, the professional engineering issues are easily manipulated as political bargaining chips, leaving no space for authentic professional discussions. Hence, it is necessary for professional organization to promote fair and objective public discussions to encourage engineers and vitalize the engineering industry.

3. Vision

For the development of a country, the engineering technologies are not only the essential foundations for fostering the economic prosperity and growth, but also a powerful propellant to improve the standards of living of the society. Over time, in the process of economic and national development of this country, engineers have, on their own positions, worked together and devoted themselves. In each stage and each field, their core missions may be different, but their ultimate goal is the same – to strengthen the global competitiveness of the ROC.

As with the movement of time wheels, new thoughts and trends have created different global situations. How new generation's engineers can create new prosperity and mindsets for the engineering sectors of this country is a significant task. .

To determine future development directions and the value of existence, we first must establish a clear vision. A vision entails intent, viewpoints, faiths, perspectives, expectations, and insights. From the viewpoint of corporation management, the establishment of vision can enhance operational efficiency and promotes organization members' growth. All outstanding enterprises have a clear vision and corporate value. So, we should cohere group consensus and motivate the members to devote themselves toward the vision.

Considering present global trends, CIE's founding motives, purpose of existence and status of CIE, and including the general expectations of the Taiwan's engineering communities, and social responsibilities; after core members' discussions, and the further refinement of the vision statement, we define the future CIE vision as:

“Respecting to the nature and the ecological environment, Integration and innovation, Building a brighter future”

Further explanations of this vision is: “to establish a win-win situation in respect of the development between ecological and humanitarian environments ; improve engineering technologies and sciences; accelerate industry upgrades; improve economic structure ; build an affluent, safe and secure future for the people of this country” - which is the common goal shared by engineering sectors. The achievement of such a vision relies on all engineering talents' and leaders' common understanding and joint effort in order to pursue sustainable environment and economic development for the ROC in the future..

4. Mission and Objectives

In order to fulfill the vision's commitments and benefits for the future, the next step is to ensure that the current CIE mission is aligned with the vision's core value so as to set up objectives and formulating action plans. With specific procedures, a vision will not be unreachable and will become a progressive and ongoing development process.

4.1 Mission

CIE has been through major historical events in the last century. Although its affairs and activities have changes, in essence, CIE still keeps its excellent tradition and is an important platform for engineers to fulfill their missions. The mission of this Institute since its founding is:

- (1) To strengthen close ties and interactions between members and professional institutes worldwide
- (2) To advance technology, expertise, and professionalism in engineering
- (3) To further national development through joint efforts with government authorities and the private sector

The missions of CIE are meant to unite the strength of the engineering communities and publicize quality engineer cultures; via exchange of technology insight and experiences to create for the engineering professionals the high added-value and improved social status, and to ultimately collaborate and develop national engineering infrastructure, as the highest mission. These also reflect the vision "Respecting to the nature and the ecological environment, Integration and innovation, Building a brighter future."

4.2 Objectives

Based on the guidance of above mission, the Ad Hoc Committee set up the following objectives for all its members and engineering sectors include:

Mission		Objectives
To strengthen close ties and interactions between members and professional institutes worldwide	⇒	To be the integration platform for the government agencies, industries, academics and research institutions
To advance technology, expertise, and	⇒	To be the navigator of the engineering

professionalism in engineering institutes worldwide		think-tank in the ROC
To further national development through joint efforts with government authorities and the private sectors	⇒	To be the driving force for the promotion of sustainable environment and economic development

(1) To be the integration platform for the government agencies, industries, academics and research institutions

To enhance the global competitiveness of the ROC, this Institute plays a crucial role over time in strengthening exchanges with international organizations, introducing new engineering technologies, promoting high-tech developments, improving the engineering educational environment and encouraging excellent youths to sharpen their skills and contribute their expertise in different fields.

Therefore, the feasible strategy for realizing this objective should cover the enhancement for members' quality and quantity, the promotion of engineering ethics and the establishment of the engineering talent honoring system so as to create for the engineers with high added-value and social status. Moreover, it is necessary for the CIE to promote the affiliated engineering societies for interdisciplinary exchange and cooperation, establish channels for communicating with international engineering organizations, in order to expand cooperative relationships worldwide.

(2) To be the navigator of the engineering think-tank in the ROC

Engineers are national development's backbone and are also responsible for stimulating the national economy. To cope with the rapidly technological innovation and the challenges of globalization, the CIE is aware the importance that all industries' development will require continuous innovation and R&D so as to maintain global competitiveness. No doubt, the engineering industry is not an exception.

The CIE has always been proud of being the navigator of the engineering industry in the ROC and expects to lead all engineers to foresee upcoming trends. In strategic planning, on one hand, the CIE recruits experts and scholars to pay close attention to public issues to become the authority professional organization ; on the other hands, via all kinds academic symposia, forums, publications, and engineering papers and researches and through integrating engineering and academia, this Institute

aim to promote innovative platform to conceitedly enrich the professional knowledge and skills in engineering related fields.

(3) To be the driving force for the promotion of sustainable environment and economic development

Among Asian countries, Japan, in terms infrastructure development and continuous implementation, has adopted rather clear and visionary policies. In particular, they have effectively linked up policy planning and implementation with national competitiveness. This is worthwhile for our reference.

“Assisting national development” has been the highest and ultimate mission of the CIE the since its inception. Following this ultimate mission, this Institute further confirms that, for the next decade, one of the goals for development is “promoting sustainable environment and economic development.” We further expect to unite the engineering sectors’ strengths, integrate private resources, obtain visionary professional opinions, recommend accordingly to the government, and enhance national economic and industrial competitiveness. Moreover, the CIE also recognize the importance of environmental sustainability, reached consensus to work hard and promote sustainability in compliance with government policies. This Institute will start from the innovation education platform, encourage green technology and disaster prevention technology, in order to assume more social responsibilities and create a more sustainable and brighter tomorrow.

5. Strategies

Under the guidance of the three objectives defined in the last chapter, the CIE formulates nine strategies for subsequent implementation in the following table:

Mission	Objectives	Strategies
To strengthen close ties and interactions between members and professional institutes worldwide	1. To be the integration platform for the government agencies, industries, academics and research institutions	1.1 To increase member amount and tighten member relationships
		1.2 To promote engineering ethics
		1.3 To set up the engineer honoring system
		1.4 To enhance exchanges with affiliated Institutes
		1.5 To strengthen exchanges with international Organizations
To advance technology, expertise, and professionalism in engineering	2. To be the navigator of the engineering think-tank in the ROC	2.1 To set up expert panels/forums
		2.2 To establish engineering integration and innovation platform
To further national development through joint efforts with government authorities and the private sectors	3. To be the driving force for the promotion of sustainable environment and economic development	3.1 To guide the economic and industry developments
		3.2 To promote sustainable environment and social responsibility platform

1.1 To increase member amount and tighten member relationships

The CIE deeply recognized the importance of providing diversified services to its members, increasing member amounts and promoting the mutual contacts of members. By improving the quality and quantity of all its members and establishing

their coherence toward this Institute, the CIE is able to unite the efforts and converge into one continuously growing momentum, guiding and ensuring that the CIE will perform all the necessary and required functions.

1.2 To promote engineering ethics

The quality of the engineering projects of the country reflects the country's level of advancement. Engineer cultivation, in addition to promoting professional engineering knowledge and technology, emphasizes shouldering all kinds of social responsibilities. This depends on the enlightenment of engineering ethics.

The engineering ethics have gained more and more worldwide, many international professional organizations, including World Federation of Engineering Organization (WFEO) and American Society of Civil Engineers (ASCE) have specifically established anti-corruption committees and projects to promote anti-corruption concepts to the engineering industry.

The CIE is always emphasized the promotion of the engineering ethics. As early as 1941, this Institute had fostered "Engineer Norms" of the society, professionals, employers and fellow engineers to create the criteria for the mutual encouragement and career standards of engineers which is the rudder and spiritual strengthen for this Institute. In 1994, the Committee on Engineering Ethics was established to research engineering career ethics and revises the "Engineer Norms" accordingly.

In terms of the actions to promote engineering ethics, engineers have to further identify the responsibilities toward the society, improve social status, maintain engineer dignity and establish an engineering environment that respects ethics.

1.3 To set up the engineer honoring system

In order to encourage outstanding engineering talents with great contributions to engineering technology research, development and practices, to host all kinds of award evaluations regularly each year to encourage the awardees, present awards in the Joint Annual Convention and to arrange to be received by the President of the ROC, CIE has successfully established the Engineer Honoring System. It has become a recognition and awarding ceremony highly valued by domestic engineers.

1.4 To enhance exchanges with affiliated Institutes

The CIE hopes to facilitate interdisciplinary integration and aggressively

established cooperation relationships and signed the cooperation agreements with twenty-two affiliated Institutes. We believe that the convergence of all engineering fields and professional knowledge will generate a power of knowledge that is multiplied in its power, creating supplementary synergy among members from all fields; this is one of CIE's founding missions.

1.5 To strengthen exchanges with international Organizations

Currently, the CIE participates in major international organizations including World Federation of Engineering Organizations (WFEO), APEC Engineer, Engineers Mobility Forum (EMF), Federation of Engineering Institutions of Asia and the Pacific (FEIAP), International Engineering Alliance (IEA) and ASEAN Federation of Engineering Organizations (AFEO). Also, the Institute signed the Cooperation Agreement and Memorandum with "The Institute of Engineers, Australia," "The University of Salford," "The Institution of Engineers, Malaysia," "Korean Professional Engineers Association" and "The Institution of Engineers (India)."

Implementing engineering and professional international collaborations has always been the area that CIE hopes to improve upon. In recent years, some senior engineers including, Mr. John H. Lin, Mr. Za-Chieh Mo and Mr. John Chien-Chung Li, the President of CIE, Moh & Association, Inc. and the CECI Engineering Consultants, Inc., Taiwan respectively, have jointly promoted the international collaboration. We have already seen significant breakthroughs and achievements.

Looking forward to the future, this Institute will more aggressively participate in all kinds of activities hosted by international engineering organizations in order to seek opportunities to sign memorandums with international engineering societies, promote the international exchange of engineering talent and facilitate collaboration opportunities with international engineering organizations, effectively developing the international visibility and enhancing the influence of this country.

2.1 To Set up Expert Panels/Forums

In a democratic society, a think tank usually plays an aggressive role, with significant functions. For public opinions and government policies, a think tank can also exert gigantic influence. In recent years, there have been more and more different kinds of think tanks in this country, but none of them is a professional think tank

which really represents the engineering industry. The high number of brilliant talents is indeed the core advantage for this Institute. To become a navigator of the national engineering think tank, the CIE establishes the Committee on Think Tank to assemble experts to actively study engineering related social issues, to speak on behalf of the engineering industry, to promote fair and objective public discussions, and furthermore, make propositions and recommendations for government's reference.

2.2 To Establish Engineering Integration and Innovation Platform

As technology advances with time, engineers need to improve in the traditional engineering fields and, based on new, cutting-edge trends, continuously add new elements in order to sustainably extend economic prosperity of this country. The CIE firmly believe that technology is an effective strategy to rapidly accelerate the development of national competitiveness and improve the quality of life. Through technology changes, we can continue to lead the society to innovate and improve. Therefore, we need to establish an engineering integration and innovation platform.

3.1 To guide the economic and industry developments

Engineering technology has powered economic prosperity and improved the quality of living. Engineers in the modernization process of this country have contributed their professional expertise, and the achievement for building national economy and development is undeniable.

Though the CIE is a non-government society; however, many of the Directors, Supervisors and Committee Chairmen in CIE hold important positions in government that enable this Institute always rapidly acquire the most insightful policy directions and integrate the powers of academia and industry to promote the latest and most urgent engineering technology, engineering philosophies and education to guide the directions of the industry and economic developments for the ROC.

In the future, we hope to refer to the engineering experts' wisdom and experiences and, through brainstorming with the innovative mindsets and technologies of the private sector and the engineering circle, propose a national development master plan based on our expertise and professional knowledge, developing Taiwan's new economic and infrastructural prosperity.

3.2 To promote sustainable environment and social responsibility platform

Sustainable development is highly emphasized by all countries in the world. Thus, to be a responsible world citizen, the government aggressively studying on and initiates relevant policies on sustainable development for the purpose of enhancing the energy efficiency and developing of green energy for all industries for decades.

In the future, the CIE hopes to establish an environmental sustainability exchange platform. In both philosophical and technological practices, this Institute can develop mindsets and practices that measure up to the international standards. Only by engaging in balanced development between ecological and humanitarian environments and emphasizing the cultivation and education of quality engineers can we effectively realize sustainable development in the economic and environmental aspects.

6. Action Plans

In respond to the nine strategies defined in the last chapter, the CIE formulates a series action plans and authorized Committees in the following table:

6.1 Action plan for increasing member amount and tightening member relationships

Strategy	Action Plan	Committee
1.1 To increase member amount and tighten member relationships	To enhance membership benefits	Committee on Membership
	1.1.2 To improve IT systems	Committee on Information Management & Development
	1.1.3 To encourage the participation of the industry, government, academia, and research institutions	Committee on Membership
	1.1.4 To attract excellent youth to join the engineering industry	Committee on Membership
	1.1.5 To set up the engineer talent pool database	Committee on Membership
	1.1.6 To organize member gatherings activities (incl. visiting program)	Committee on Membership
	1.1.7 To arrange visiting to group members' enterprises (organizations)	Committee on Membership
	1.1.8 To organize PMP training and certification	Committee on PMP Certification

6.2 Action plan for promoting engineering ethics

Strategy	Action Plan	Committee
1.2 To promote engineering ethics	1.2.1 To establish the CIE fellow system	Committee on Engineering Ethics
	1.2.2 To assist in establish "The Chinese Academy of Engineering"	Committee on Engineering Ethics
	1.2.3 To promote the awareness of the relationships between engineering and economic to the public	Committee on Engineering Ethics
	1.2.4 To organize "The Excellence in Engineering Projects Award"	Committee on Engineering Ethics

6.3 Action plan for setting up the engineer honoring system

Strategy	Action Plan	Committee
1.3 To set up the engineer honoring system	1.3.1 To organize "The Outstanding Engineer Awards"	Committee on Awards
	1.3.2 To organize "The excellent engineer	Fellowship of the

	award” fellowship	Excellent Engineer Awardees
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6.4 Action plan for enhancing exchanges with affiliated Institutes

Strategy	Action Plan	Committee
1.4 To enhance exchanges with affiliated Institutes	1.4.1 To organize the annual joint party	Secretariat
	1.4.2 To promote the “adjunct membership” system with affiliated institutes	Committee on Membership
	1.4.3 To arrange periodic exchanges and mutual visits for Board Directors, Directors and Supervisors	Secretariat
	1.4.4 To promote the signing of cooperation agreement with affiliated institutes	Secretariat
	1.4.5 To organize the “Joint Annual Convention”	Organizing Committee on Joint Annual Convention

6.5 Action plan for strengthening exchanges with international Organizations

Strategy	Action Plan	Committee
1.5 To strengthen exchanges with international Organizations	1.5.1 To promote engineers mutual accreditation with other countries (incl. China)	Chinese Taipei EMF Monitoring Committee/Chinese Taipei APEC Engineer Monitoring Committee
	1.5.2 To cultivate professionals with global views (promote engineers exchanges)	Committee on International Relations
	1.5.3 To establish extensive communication network with international professional organizations	Committee on International Relations

6.6 Action plan for setting up expert panels/forums

Strategy	Action Plan	Committee
2.1 To set up expert panels/forums	2.1.1 To recruit talents for the think tank	Committee on Think Tank
	2.1.2 To co-organize seminars and forums with affiliated institutes	Committee on Think Tank
	2.1.3 To provide professional suggestions to spokesman to make statement in public	Committee on Think Tank

6.7 Action plan for establishing engineering integration and innovation platform

Strategy	Action Plan	Committee
2.2 To be the engineering integration and innovation platform	2.2.1 To organize “The Modern Engineering & Technology Seminar (METS)”	Committee on Modern Engineering and Technology Seminar
	2.2.2 To organize “The Sino-Japanese Modern Engineering & Technology Cooperation Symposium”	Committee on Sino-Japanese Modern Engineering & Technology Cooperation Symposium
	2.2.3 To publish CIE Bimonthly (Chinese)	Committee on Publications
	2.2.4 To publish Journal of CIE (English)	Editorial Committee on Journal of the CIE
	2.2.5 To organize “The Engineering Paper Award”	Committee on Awards of Technical Papers
	2.2.6 To assist in establishing engineering related standards and specifications	Committee on Think Tank

6.8 Action plan for guiding the economic and industry developments

Strategy	Action Plan	Committee
3.1 To guide the economic and industry developments	3.1.1 To draw proposals to government for policy making according to the conclusions of the seminars and forums	Committee on Think Tank

6.9 Action plan for promoting sustainable environment and social responsibility platform

Strategy	Action Plan	Committee
3.2 To promote sustainable environment and social responsibility platform	3.2.1 Establish a platform for sustainable exchange on green energy and the environment	Committee on Environment and Energy Development
	3.2.2 To promote disaster prevention and disaster prevention connection networks	Committee on Environment and Energy Development
	3.2.3 To promote the improvement on quality of engineering education	Committee on Education

7. Future Prospects and an Afterword

2011, or the centenary of the ROC, is also the centennial birthday for the CIE. Looking into the future at this significant juncture of heritage continuation and future inspiration, the CIE will continuously devote itself in accordance with policies of national development and encourage our fellow engineers to develop professional technologies and pay close attention to the welfare of the people in the ROC. By establishing a positive cooperation model with government departments and turning the CIE into the platform for exchange. The CIE hopes all engineers make effective use of their talent and contribute their expertise, experience, and passion.

The CIE also hopes to integrate more engineering societies in different areas of specialization, to expand the scope of interaction and communication among members, and to unite the strength of engineers to become the core platform for improving engineering expertise and innovation. On the other hand, we will continue to strengthen our connection to and cooperation with the international engineering organizations to realize the goal of engineering diplomacy and coordinate with the government to promote the internationalization of engineering industries. In terms of social responsibilities, The CIE hopes to establish the engineering think tank to offer unimpaired, rational, and professional insight for engineering issues brought up by the media.

To augment the application of engineering technologies in different fields and enhance the development of engineering competency, the CIE will continue to promote and present various engineering awards and organize academic seminars and engineering exhibitions with professional organizations to enrich the engineering knowledge of young people and encourage observation and experience sharing among engineers.

The implementation of the conceived action plans heavily relies on the joint enforcement among committees, and regular Board Director and Supervisors Meeting will serve as the perfect liaison platform to coordinate the plans and tasks of individual committees. Without a doubt, the determination to promote the tasks and the ability to implement them will be the keys to success. To enforce the action plans, committees are therefore asked to conduct semi-annual or quarterly reviews to ensure the implementation of action plans.

By publishing this white paper, we are attempting to engage in the sustainable development of CIE, to preserve its outstanding tradition, and to offer recommendations for industrial development and engineering projects in Taiwan. This way, we can map out the direction for the CIE and even the engineering circles of Taiwan over the next decade.

Lastly, the spiritual slogan that all engineers have faithfully followed in the last century - “Sustainable Engineering, Centenary Growth” would be the best conclusion of this white paper. We hope that the spirit of all engineering projects and engineers can live forever.

8. Appendix

Appendix 1: Framework of the White Paper (Refer to attachment for details) and the List of Committees for the 67th Session (Apr. 27, 2012)

1.	Committee on Institute Affairs	Mr. John H. Lin	Chairman
2.	Committee on Finance	Mr. W. Y. Chen	Chairman
3.	Committee on Membership	Mr. Hong Chie Ling	Chairman
4.	Committee on Education	Dr. Yeong Bin Yang	Chairman
5.	Committee on Publications	Mr. Andy Sheu	Chairman
6.	Editorial Committee on Journal of the CIE	Dr. Shi-Shuenn Chen	Chairman
7.	Committee on Information Management & Development	Dr. Yen-Sung Lee	Chairman
8.	Committee on Awards	Dr. Shan-Hwei Ou	Chairman
9.	Committee on Funds and Assets	Mr. Guei-Ming Chen	Chairman
10.	Committee on Awards of Technical Papers	Dr. Anthony C. Ku	Chairman
11.	Committee on Environment and Energy Development	Dr. Larry L. G. Chen	Chairman
12.	Committee on Sino-Japanese Modern Engineering & Technology Cooperation Symposium	Mr. Chun-Yat Hsu	Chairman
13.	Committee on International Relations	Dr. John Chien-Chung Li	Chairman
14.	Committee on Modern Engineering and Technology Seminar	Dr. Jyuo-Min Shyu	Chairman
15.	Committee on Engineering Ethics	Mr. Chun-Yat Hsu	Chairman
16.	Fellowship of the Excellent Engineer Awardees	Mr. Tong-Seng Kao	Chairman
17.	Chinese Taipei EMF Monitoring Committee:	Dr. Za-Chieh Moh	Chairman
18.	Chinese Taipei APEC Engineer Monitoring Committee	Dr. Za-Chieh Moh	Chairman
19.	Nomination Committee	Dr. Shyue-Ching Lu	Chairman
20.	Organizing Committee on the 2012 Joint Annual Convention	Dr. John Chien-Chung Li	Chairman
21.	Committee on PMP Certification	Mr. Ike W. Liao	Chairman
22.	Committee on Think Tank	Mr. Chih Sen Lin	Chairman
23.	Committee on Laws and Regulations	Mr. Po-Chien Wang	Chairman

Framework of 「The 2021 Development Strategic of Chinese Institute of Engineers」

Vision : 「Respecting to the nature and the ecological environment, Integration and Innovation, Building a brighter future」

CIE Opeartion Management				Committees	Remarks
1. To provide suggestions about the future development				Committee on Institute Affairs	
2. To promote fund raising and financial management				Committee on Finance	Merged with Committee on Funds and Assets
3. To evaluate the Constitution and Regulations of individual Committees : Legal Consultant				Committee on laws and regulations (New)	
4. To organize the election of Member Representatives, Board of Directors and Supervisors				Nomination Committee	
5. To announce statement on behalf of the CIE				Spokesman (New)	
6. To promote activities according to the order from President and Board of Directors, assist individual Committees to implement assignments ; Accounting Management				Secretariat	
Mission	Objectives	Strategy	Action Plan	Committees	Remarks
1. to strengthen close ties and interactions between members and professional institutes worldwide	1. To set up integration platform for the industry, the government, academia, and research institutions.	1.1 To Increase Members and Tighten Member Relationships	1.1.1 To enhance membership benefits	Committee on Membership	
			1.1.2 To improve IT systems	Committee on Information Management & Development	
			1.1.3 To attract the industries, government agencies, academics and research institutions to join	Committee on Membership	
			1.1.4 To attract excellent youth to join the engineering industry	Committee on Membership	
			1.1.5 To set up the engineer talent pool database	Committee on Membership	
			1.1.6 To organize member gatherings activities (incl. visiting program)	Committee on Membership	
			1.1.7 To arrange visiting to group members' enterprises (organizations)	Committee on Membership	
			1.1.8 To organize PMP training and certification	Committee on PMP Certification	
		1.2 To Promote Engineering Ethics	1.2.1 To establish the CIE fellow system	Committee on Engineering Ethics	
			1.2.2 To assist in establish "The Chinese Academy of Engineering"	Committee on Engineering Ethics	
			1.2.3 To promote the awareness of the relationships between engineering and economic to the public	Committee on Engineering Ethics	
			1.2.4 To organize "The Excellence in Engineering Projects Award"	Committee on Engineering Ethics	
		1.3 To Establish the Engineer Honoring System	1.3.1 To organize "The Outstanding Engineer Awards"	Committee on Awards	
			1.3.2 To organize "The excellent engineer award" fellowship	Fellowship of the Excellent Engineer Awardees	
		1.4 To Enhance Exchanges with Affiliated Institutes	1.4.1 To organize the annual joint party	Secretariat	
			1.4.2 To promote the "adjunct membership" system with affiliated institutes	Committee on Membership	
			1.4.3 To arrange periodic exchanges and mutual visits for Board Directors, Directors and Supervisors	Secretariat	
			1.4.4 To promote the signing of cooperation agreement with affiliated institutes	Secretariat	
			1.4.5 To organize the "Joint Annual Convention"	Organizing Committee on Joint Annual Convention	
		1.5 To Strengthen Exchanges with International Organizations	1.5.1 To promote engineers mutual accreditation with other countries (incl. China)*	Chinese Taipei EMF Monitoring Committee/Chinese Taipei APEC Engineer Monitoring Committee	
			1.5.2 To cultivate professionals with global views (promote engineers exchanges)	Committee on International Relations	
			1.5.3 To establish extensive communication network with international professional organizations	Committee on International Relations	
2. Academic research and development: to advance technology, expertise, and professionalism in engineering	2. To become the navigator of the constructional think-tank in Taiwan	2.1 To Set up Expert Panels/Forums	2.1.1 To recruit talents for the think tank	Committee on Think Tank	
			2.1.2 To co-organize seminars and forums with affiliated institutes	Committee on Think Tank	Remarks : Co-organize one forum with Committee on International Relations and Committee on Engineering Ethics respectively
			2.1.3 To provide professional suggestions to spokesman to make statement in public	Committee on Think Tank (New)	
		2.2 To Establish Engineering Integration and Innovation Platforms	2.2.1 To organize "The Modern Engineering & Technology Seminar (METS)"	Committee on Modern Engineering and Technology Seminar	
			2.2.2 To organize "The Sino-Japanese Modern Engineering & Technology Cooperation Symposium"	Committee on Sino-Japanese Modern Engineering & Technology Cooperation Symposium	
			2.2.3 To publish CIE Bimonthly (Chinese)	Committee on Publications	
			2.2.4 To publish Journal of CIE (English)	Editorial Committee on Journal of the CIE	
			2.2.5 To organize "The Engineering Paper Award"	Committee on Awards of Technical Papers	
			2.2.6 To assist in establishing engineering related standards and specifications	Committee on Think Tank (New)	
3. Assistance in national development: to further national development through joint efforts with government authorities and the private sector	3. To become the backbone driving force for the promotion of sustainable economic and environmental development	3.1 To Guide the Ways of Economic and Industries Development of Taiwanese	3.1.1 To draw proposals to government for policy making according to the conclusions of the seminars and forums	Committee on Think Tank (New)	
		3.2 To Promote Sustainable Environment and Platform of Social Responsibility	3.2.1 Establish a platform for sustainable exchange on green energy and the environment	Committee on Environment and Energy Development	
			3.2.2 To promote disaster prevention and disaster prevention connection networks	Committee on Environment and Energy Development	
			3.2.3 To promote the improvement on quality of engineering education	Committee on Education	

Appendix 2: List of Committees for the 67th Session (Jan. 1, 2011)

1.	Committee on Institute Affairs	Mr. John H. Lin	Chairman
2.	Committee on Finance	Mr. W. Y. Chen	Chairman
3.	Committee on Membership	Mr. Hong Chie Ling	Chairman
4.	Committee on Education	Dr. Yeong Bin Yang	Chairman
5.	Committee on Publications	Mr. Andy Sheu	Chairman
6.	Editorial Committee on Journal of the CIE	Dr. Shi-Shuenn Chen	Chairman
7.	Committee on Information Management & Development	Dr. Yen-Sung Lee	Chairman
8.	Committee on Awards	Dr. Shan-Hwei Ou	Chairman
9.	Committee on Funds and Assets	Mr. Guei-Ming Chen	Chairman
10.	Committee on Awards of Technical Papers	Dr. Anthony C. Ku	Chairman
11.	Committee on Environment and Energy Development	Dr. Larry L. G. Chen	Chairman
12.	Committee on Sino-Japanese Modern Engineering & Technology Cooperation Symposium	Mr. Chun-Yat Hsu	Chairman
13.	Committee on International Relations	Dr. John Chien-Chung Li	Chairman
14.	Committee on Modern Engineering and Technology Seminar	Dr. Jyuo-Min Shyu	Chairman
15.	Committee on Engineering Ethics	Mr. Chun-Yat Hsu	Chairman
16.	Fellowship of the Excellent Engineer Awardees	Mr. Tong-Seng Kao	Chairman
17.	Chinese Taipei EMF Monitoring Committee:	Dr. Za-Chieh Moh	Chairman
18.	Chinese Taipei APEC Engineer Monitoring Committee	Dr. Za-Chieh Moh	Chairman
19.	Nomination Committee	Dr. Shyue-Ching Lu	Chairman
20.	Organizing Committee on the 2012 Joint Annual Convention	Dr. John Chien-Chung Li	Chairman

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Vision : 「Respecting to the nature and the ecological environment, Integration and innovation, Building a brighter future」

CIE Operation Management					Committees	Remarks
1. To provide suggestions about the future development						
2. To promote fund raising and financial management						
3. To evaluate the Constitution and Regulations of individual Committees ; Legal Consultant						
4. To organize the election of Member Representatives, Board of Directors and Supervisors						
5. To announce statement on behalf of the CIE						
6. To promote activities according to the order from President and Board of Directors, assist individual Committee to implement assignments ; Accounting Management						
Mission	Objectives	Strategy	Action Plan	Committees		Remarks
2. To become the navigator of the constructional think-tank in Taiwan 2. To advance technology, expertise, and professionalism in engineering	2. To become the navigator of the constructional think-tank in Taiwan	2.2 To Establish Engineering Integration and Innovation Platforms	1.1.1 To enhance membership benefits	Committee on Membership		
			1.1.2 To improve IT systems (METS)	Committee on Information Technology and Technology Seminar		
			2.2.2 To organize "The Sino-Japanese Modern Engineering & Technology Cooperation Symposium"	Committee on Sino-Japanese Modern Engineering & Technology Cooperation Symposium		
			2.2.3 To publish CIE Bimonthly (Chinese)	Committee on Publications		
			2.2.4 To publish Journal of CIE (English)	Editorial Committee on Journal of the CIE		
			2.2.5 To organize "The Engineering Paper Award"	Committee on Awards of Technical Papers		
3. Assistance in national development: to further national development through joint efforts with government authorities and the private sector	3. To become the backstage driving force for the promotion of sustainable economic and environmental development	3.1 To Guide the Ways of Economic and Industries Development of Taiwanese 3.2 To Promote Sustainable Environment and Platform of Social Responsibility	2.2.6 To assist in establishing engineering related standards and specifications	Committee on Think Tank (New)		
			3.1.1 To draw proposals to government for policy making according to the conclusions of the seminars and forums	Committee on Think Tank (New)		
			3.2.1 Establish a platform for sustainable exchange on green energy and the environment	Committee on Environment and Energy Development		
			3.2.2 To promote disaster prevention and disaster prevention connection networks	Committee on Environment and Energy Development		
			3.2.3 To promote the improvement on quality of engineering education	Committee on Education		