



Brazilian Center of Steel Construction

ACTIVITY  
REPORT  
2019

MANAGER:





Plácido de Castro International Airport - AC  
Architectural Project: Marlúcia Cândida de  
Oliveira Neves and Infraero team Structural  
Project: Kleber Fernandes Braga and Nestor  
Marques de Carvalho Júnior  
Revista Arquitetura & Aço - Edition 53



# message from the executive director

The performance of the economy in 2019 frustrated the expectations of the Brazilian steel industry, causing the expected resumption of growth not to occur at the desired speed and intensity. The depressed domestic market in the first half of the year, in parallel with a turbulent foreign market and the problems faced in the supply of iron ore due to the Brumadinho tragedy, caused the steel sector to present results below forecasts. The delay in the approval of the pension reform, an absolute priority for the entire transformation sector, also contributed to the lower than expected result.

According to Aço Brasil, the year of 2019 showed a decrease in domestic sales of 2.2% in relation to 2018, totaling 18.5 million tons, and of 2.7% in apparent consumption, which reached 20.6 million tons. In relation to crude steel production figures, the Brazilian steel industry fell by 9.0%, totaling 32.2 million tons in 2019. Imports decreased 1.9% compared to 2018, totaling 2.4 million tons, and exports decreased 8.1%, reaching 12.8 million tons.

The steel structure sector - a mirror of the performance of civil construction activities - registered a new drop, now 10.8%, in production in 2018 compared to 2017, according to a survey prepared by CBCA. It is also worth mentioning that since 2014 the sector has been suffering successive falls in this number. When comparing 2014 production (peak) with that of 2018, a reduction of more than 50% can be observed. The tax burden was one of the most mentioned points by the surveyed companies when asked about the main difficulties to promote the use of steel structures in Brazil. Most believe that, when compared to on-site molded systems, the steel structure receives higher ICMS taxation.

In addition to this survey, CBCA also released last year studies of the steel roofing & steel deck and galvanized profiles for light steel frame and drywall. In 2018, the first one presented negative figures in its production numbers (419.3 thousand tons), with a 9% drop in the production volume of steel roof tiles and a 37% drop in the production volume of steel deck, compared to 2017. The second one once again showed optimistic figures, reinforcing the premise that new systems emerge as problem solvers in times of crisis. In both the light steel frame and drywall sectors, production grew in 2018, with the light steel frame (the structural skeleton that supports the building) accounting for almost 4% and the drywall (non-structural sealing system) for almost 2% of 2017 production.

The studies again show markets with great growth potential and that are prepared to meet a possible resumption of demand. It is expected that new investments by the Government in the civil construction and infrastructure sectors will further leverage the numbers of the next surveys.

## **CBCA's actions in 2019 contributed again to the strengthening of the industrial steel construction sector in Brazil**

Still in order to stimulate the growth of these markets and also to understand the market share of the construction systems adopted in Brazilian construction works, CBCA developed in partnership with the World Steel Association and launched in 2019 a survey that portrays the use of intensive steel construction systems in Brazil. The data was collected at the end of 2018 from 185 construction companies and 80 designers, who represented at the time about 23% of the total volume of works delivered. According to the designers heard, the use of steel structures

has changed in recent years, with an increase of 40% in demand.

Another highlight of 2019 was the continuation of the more strategic work with CBCA's social networks, through weekly posts and targeted disclosures, including the creation of the video series "Transformers of Construction", in which renowned specialists who have in common the use of steel structures in their projects were interviewed. All the networks showed growth in the base of followers / subscribers, with Facebook surpassing the mark of 10 thousand fans.

The RoadShows project also continued in 2019, with lectures by employees of the entity in Porto Alegre, Goiânia and Recife. The events brought information about industrialized steel construction to almost 200 people, including professionals from the construction market and students from civil engineering and architecture courses. Live transmissions of the events were also made, which made it possible for people from other regions of Brazil to have contact with the themes. Highlight goes to the event in Recife, held for the first time in partnership with DNIT, focusing on the use of steel for infrastructure works.

The 12th edition of the CBCA Contest for Students of Architecture also stood out, with 154 teams registered representing 82 Faculties of Architecture and whose winner - the Federal University of Rio Grande do Norte - also won the Latin American stage organized by Alacero; the launching of two more editions of the magazine *Arquitetura & Aço* - "Norte" and "Retrofit e Ampliações" and the continuation of the courses in person and online - always with great public presence.

Disseminating steel construction through strategic partnerships was also one of the objectives of 2019 and CBCA organized meetings with leaders of the main entities linked to the civil construction sector in Brazil to publicize actions, make partnerships and arrange support for the entity's events. It is worth mentioning the participation in the Seminar "Application of Niobium in Steel and the Future of Infrastructure in Brazil", promoted by the Ministry of Mines and Energy, in Brasília, to present to the Government the possibilities of steel structures for infrastructure works.

With the purpose of qualifying the workforce to use steel in construction, CBCA was also very close to the Academy, with meetings held with several university coordinators, and also launched the Steel Construction Sustainability Manual and the Guide to Steel Construction, an application which aims at orienting professionals to good practices in relation to steel construction, with minimum criteria recommended for the stages of conception to the execution of projects, manufacturing, transportation and assembly of its structures and interfaces.

Finally, with the premise of always fighting for the quality of products and processes so that good practices are applied, CBCA was attentive to the regulations of new products that will be used in the steel construction sector. CBCA is prepared to contribute to the resumption of the growth of the Brazilian economy and believes that the growth of civil construction, and consequently of steel construction, is the shortest path towards such objective. Together we will go through the crisis caused by COVID-19 and the CBCA is prepared to help the resumption of growth.

Ascanio Merrighi de Figueiredo Silva

Espaço de Todos Footbridge - RO  
Architectural Project: Lorenzo Max Gvozdanovic  
Vilar and Estúdio Amazônia Structural  
Project: Vetor Engenharia  
Steel Structure Supply: Benafer and Fortaleza e Ferro  
Arquitetura & Aço Magazine - Edition 53





**Promote** and **expand**  
the participation of steel  
construction in the national  
market, carrying out actions  
for its dissemination and  
supporting its technological  
development.



# SUMMARY

## 1. CONSORTIUM MEMBERS | 08

## 2. MANAGEMENT | 09

## 3. HIGHLIGHTS | 10

## 4. STATISTICAL DATA | 12

Interpretation and Disclosure of Statistical Data 12  
Researches 13

## 5. PROMOTION AND DISCLOSURE | 15

CBCA Site 15  
Site Map 16  
Bank of Works 17  
Arquitetura e Aço Magazine 18  
Publications 18  
Steel Construction Guide 19  
Media 20  
CBCA News 20  
Press 20  
Social Network 21  
CBCA RoadShow 22  
CBCA Architecture Competition 23  
CBCA Engineering Competition 25  
Events and Lectures 26

## 6. PARTNERSHIPS | 28

Exchanges with Similar International Organizations 28  
National Entities 29  
Universities 29

## 7. PROMOTION AND STANDARDISATION OF QUALITY | 31

## 8. TECHNICAL MATERIAL DEVELOPMENT | 33

Steel Structure Magazine 33  
Brazil Steel Construction Guide 34  
Publishers 35  
Steel Construction Manuals 36

## 9. LABOUR QUALIFICATION | 38

Video classes 38  
Course Promotion 39



Docks of Belém - PA  
Architectural Project : Paulo Chaves  
Fernandes and Rosário Lima  
Arquitetura & Aço Magazine - Edition 5





## MANAGERS

ArcelorMittal Tubarão

Gerdau Açominas S.A

Usiminas

## COLLABORATORS

Aperam

ArcelorMittal Aços Longos

ArcelorMittal Sul Fluminense

Gerdau Aços Longos S.A.

Vallourec Tubos do Brasil S.A.

## COMPANIES

Almeida Nascimento Estruturas Metálicas

Ananda Telhas

Allmas - All Metal Assembly Indústria

Barbieri

Blat Estruturas Metálicas

CBMM - Cia. Bras. de Metal. e Mineração

Center Steel Eng. Light Steel Framing

Comercial Gerdau

Grupo Pizzinatto

ISOESTE Construtivos Isotérmicos

ISOTECH Soluções Acústicas

Kofar

Perfilor ArcelorMittal

Perfinaço

Soluções Usiminas

SteelPack Perfilados

Stock du Aço

Tuper



## CEO

Ascânio Merrighi de Figueiredo Silva

## Management Committee

ArcelorMittal Tubarão ..... Eduardo Fares Zanotti  
Gerdau ..... Cesar Obino da Rosa Peres  
Usiminas ..... Ascânio Merrighi de Figueiredo Silva

## Executive Comission

ArcelorMittal Tubarão ..... Silvia Scalzo  
Gerdau ..... Rosane Beviláqua  
Usiminas ..... Humberto Bellei / Angela Guedes

## Executive Management

Dircetor ..... Débora Oliveira  
Executive Manager ..... Carolina Fonseca  
Marketing and Training Coordinator ..... Ricardo Fausch Werneck  
Communication and Press Coordinator ..... Rafael Silva

# HIGHLIGHTS

**Steel  
Construction  
Guide**

**Sustainability  
in Steel  
Construction  
Manualo  
em Aço**

**1st Place  
Alacero  
Competition**



**Promotional Videos  
of Social Networks**

**Responsible  
Bank of Works**

**RoadShows**

## INTERPRETATION AND DISSEMINATION OF STATISTICAL DATA

The Brazilian Center for Steel Construction (CBCA) - an entity managed by the Brazil Steel Institute - has launched the new editions of the annual research made with manufacturers of steel structures, steel roof tiles & steel deck and galvanized profiles for drywall and light steel frame. The data disclosed shows again that the studied markets present great growth potential and that in 2018 they faced strong retraction in their production numbers - with the exception of the market of galvanized profiles - largely due to the political and economic situation in Brazil. The tax burden was one of the most mentioned points by the companies surveyed when asked about the main difficulties to foster the use of steel structures in Brazil. Most believe that, when compared to on-site molded systems, the metallic structure receives higher ICMS taxation.

The study carried out with steel structure manufacturers shows that the sector showed a 10.8% drop in its production in 2018 compared to 2017, reaching the lowest level since the first edition of the survey in 2011. It should also be noted that since 2014 the sector has been suffering successive falls in this number. When comparing the 2014 (peak) production with that of 2018, a reduction of more than 50% can be observed. In 2018 alone, the survey identified the paralysis of the activities of 17 companies.

Still on the survey "Scenario of Steel Structure Manufacturers" - which is in its 8th edition - the low use of production capacity is negatively highlighted, with the occupation rate of machinery in 2018 being the lowest since 2011, with 33%. However, most of the companies interviewed (78%) believe that their company will grow this year, with 25% believing a growth above 20%, due to the expected increase in demand and new projects for 2019. In all, the following were contacted

417 companies, of which 289 responded, a considerable

increase over the previous survey due to the inclusion of new companies supplying the energy sector. In total, they invoiced around R\$ 4.53 billion in 2018 and have over 26,000 employees, with the Southeast and South regions concentrating almost 85% of the total steel structure manufacturers. With regard to steel structures by type of work, energy works represent 47% of production and industrial and commercial works almost 40%.

In its 7th edition, the survey "Scenario of Steel Roof Tile Manufacturers & Steel Deck" also presents a sector with low utilization of its installed capacity - 42% in 2018. Another negative figure was the production figures (419.3 thousand tons), with a 9% drop in the production volume of steel roofing tiles and a 37% drop in the production volume of steel deck, in the 2018 x 2017 comparison. In the manufacturers' view, the main problems are the little working capital available and the need for improvement in the commercial sector, in addition to the competition with the value of imported and/or non-qualified steel. Still according to the participating companies, in order to increase the use of steel roofing tiles & steel deck in Brazil, it is essential to have improvements in the taxation of steel construction products. In total, 102 companies - with estimated revenues of R\$ 2.74 billion in 2018 - were heard. Despite the negative figures, more than 70% of manufacturers are expecting a growth in the market for 2019.

The survey "Scenario of Manufacturers of Galvanized Profiles for Light Steel Frame and Drywall" once again pointed to optimistic figures, reinforcing the premise that new systems emerge as problem solvers in times of crisis. In its 6th edition, the survey points out that about 75% of the companies surveyed expect growth in 2019.

In both the light steel frame and drywall sectors, production grew in 2018, with the light steel frame (the structural skeleton that supports the building) accounting

for almost 4% and the drywall (non-structural fence system) for almost 2%, compared to 2017 production. Considering the existing production capacity of profiles for LSF and Drywall - 205,500 tons - the entire sector is prepared to meet a growth in demand, a scenario similar to that analyzed in the other two surveys. It should also be noted that approximately 50% of the profiles for light steel frame are destined for residential works, with a strong growth trend in the use of façades, since the construction companies have been seeking higher productivity solutions for this subsystem.

The results obtained in the 2019 surveys serve to support CBCA in its actions, serving as a support for the promotion of industrialized steel construction in society, government and the civil construction market, exposing the real importance and dimension of steel construction. The complete content of the research, which was supported by the Brazilian Association of Metallic Construction, the National Institute of Steel Distributors, the Institute of Non-Ferrous Metals and the Brazilian Drywall Association is published on CBCA's website, in the "Publications" section.



## RESEARCHES

### STEEL STRUCTURE MANUFACTURERS' SCENARIO



The study carried out with steel structure manufacturers shows that the sector showed a 10.8% drop in its production in 2018 compared to 2017, reaching the lowest level since the first edition of the survey in 2011. It is also worth mentioning that since 2014 the sector has suffered successive falls in this number. When comparing the 2014 (peak) production with that of 2018, a reduction of more than 50% can be observed. In 2018 alone, the survey identified the paralysis of the activities of 17 companies.

Still on the survey "Scenario of Steel Structure Manufacturers" - which is in its 8th edition - the low use of production capacity is negatively highlighted, with the occupation rate of machinery in 2018 being the lowest since 2011, with 33%. However, most of the companies interviewed (78%) believe that their company will grow this year, with 25% believing a growth above 20%, due to the expected increase in demand and new projects for 2019. In all, 417 companies were contacted, of which 289 responded, a considerable increase in relation to the previous survey due to the inclusion of new supplying companies in the energy sector. In total, they invoiced around R\$ 4.53 billion in 2018 and have over 26 thousand employees, with the Southeast and South regions concentrating almost 85% of the total steel structure manufacturers. With regard to steel structures by type of work, energy works represent 47% of production and industrial and commercial works almost 40%.

### STEEL TILE & STEEL DECK MANUFACTURERS SCENARIO



In its 7th edition, the survey "Scenario of Steel Roof Tile Manufacturers & Steel Deck" also presents a sector with low utilization of its installed capacity - 42% in 2018. Another negative figure was the production figures (419.3 thousand tons), with a 9% drop in the production volume of steel roofing tiles and a 37% drop in the production volume of steel deck, in the 2018 x 2017 comparison. In the manufacturers' view, the main problems are the little working capital available and the need for improvement in the commercial sector, in addition to the competition with the value of imported and/or non-qualified steel. Still according to the participating companies, in order to increase the use of steel roofing tiles & steel deck in Brazil, it is essential to have improvements in the taxation of steel construction products. In total, 102 companies - with estimated revenues of R\$ 2.74 billion in 2018 - were heard. Despite the negative figures, more than 70% of manufacturers are expecting a growth in the market for 2019.

### SCENARIO OF MANUFACTURERS OF GALVANIZED PROFILES FOR LIGHT STEEL FRAME & DRYWALL



In its 7th edition, the survey "Scenario of Steel Roof Tile Manufacturers & Steel Deck" also presents a sector with low utilization of its installed capacity - 42% in 2018. Another negative figure was the production figures (419.3 thousand tons), with a 9% drop in the production volume of steel roofing tiles and a 37% drop in the production volume of steel deck, in the 2018 x 2017 comparison. In the manufacturers' view, the main problems are the little working capital available and the need for improvement in the commercial sector, in addition to the competition with the value of imported and/or non-qualified steel. Still according to the participating companies, in order to increase the use of steel roofing tiles & steel deck in Brazil, it is essential to have improvements in the taxation of steel construction products. In total, 102 companies - with estimated revenues of R\$ 2.74 billion in 2018 - were heard. Despite the negative figures, more than 70% of manufacturers are expecting a growth in the market for 2019.

# 4.314

## ACCESS TO RESEARCHES (VIA SITE)



Shopping Center in Cacoal - RO  
Architectural Design: Total Retail  
Structural Design: Castilho Estruturas Metálicas Steel  
Structure Supply: Castilho Estruturas Metálicas  
Magazine Arquitetura & Aço - Edition 5





## CBCA SITE

**207.183**  
VISITS/YEAR

DEVICES:  
DESKTOP: 72,26%  
MOBILE: 26,99%  
TABLET: 0,75%



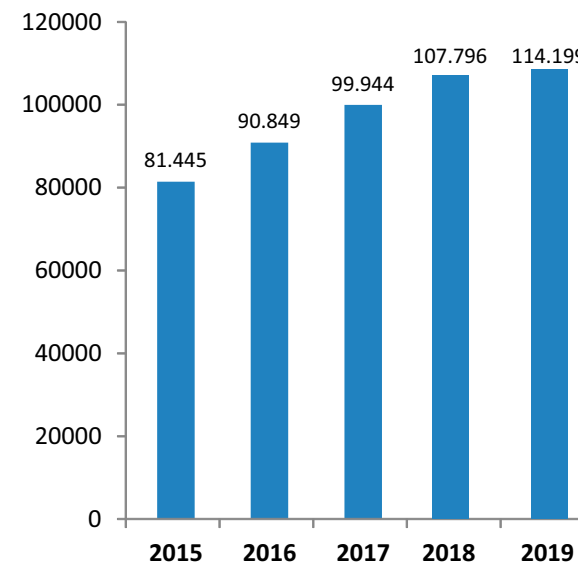
**6.403**  
NEW REGISTRATIONS  
(VIA SITE)

**165.568**  
NEW VISITORS

(\*) The measurement of the site is made based on Google Analytics

**644.938**  
TOTAL PAGE VIEWS  
MEDIUM SESSION  
LENGTH: 00:02:40

## REGISTRATIONS IN SITE



## ENGLISH SITE NUMBERS

New users: 779

Page view: 1 341

Average session time: 00:01:43

Webpage:

STEEL-CONSTRUCTION-STRUCTURAL-STEEL

Devices:

Desktop: 91 93% / Mobile: 7 43% / Tablet: 0 64%

WEBSITE VISIT

**207.183**  
**2019**  
 RECORD: 26.430 (NOV)  
 567,6 /DAY

**223.678**  
**2018**  
 RECORDE:28.725 (MAR)

**286.709**  
**2017**  
 RECORD: 31.462 (MAR)

**280.293**  
**2016**  
 RECORD: 30.984 (OCT)

WEBSITE MAP





## WORKS BANK



Integration with the Brazil Steel Construction Guide through a link to the suppliers registered in the works.

A steel construction is increasingly present in Brazil.

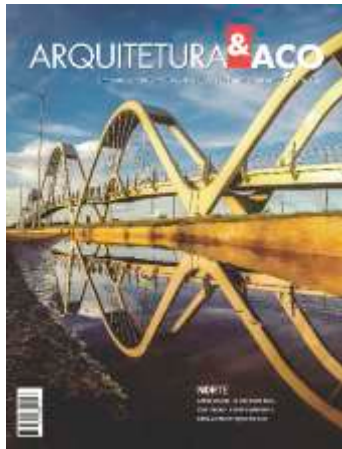
To catalog and assemble steel works in Brazil, the CBCA created the Bank of Works - a system of indexing works by types, categories of use, designers and structures manufacturers.

Bank of Works aims to highlight the production chain of steel construction in addition to serving as a bank of ideas and constructive processes.

- > Building typology
- > Usage Category
- > Architecture
- > Structural engineering
- > Structures manufacturer

Banco de Obras is available on a responsive website for Smart Phone and Tablet (IOS and Android)

## ARQUITETURA E AÇO MAGAZINE



N° 53  
North

**20.558**  
VISITS TO  
MAGAZINES

**2.198**  
MAGAZINE DOWNLOADS

## PUBLICATIONS

Number of Manuals, Books, Magazines  
and Videos sent to Universities, Teachers  
and Professionals:

**11.529**  
2018

2018: 12.887  
2017: 26.378  
2016: 21.128  
2015: 40.091

**9.724**  
ARTICLE VIEWS AND  
TECHNICAL NOTES

**106.608**  
WEBSITE NEWS: VIEWS



N° 54  
Retrofit and extensions



## STEEL CONSTRUCTION GUIDE

Launched in September 19, the application aims to guide investors, builders, architects, engineers, manufacturers, assemblers and end customers to good practices in relation to steel construction, with minimum criteria recommended for the stages of conception to the execution of projects, manufacture, transport and assembly of its structures and interfaces.

Through an interactive and self-instructional checklist, the professional can access each of the available tabs (Management, Architecture, Structure, Manufacturing, Logistics and Assembly and Passive Protection), in order to know which direction to follow so that his project is executed at a level of excellence .

The practices recommended in the Guide are for guidance, and it is up to those responsible to define which ones apply to the specific situations of each project.

**02:09**  
AVERAGE TIME ON PAGE

ANDROID \_\_\_\_\_  
**549**  
TOTAL INSTALLATIONS COMPLETED

**316**  
ACTIVE DEVICE INSTALLATIONS

**278**  
VIEWS

IOS \_\_\_\_\_  
**95**  
TOTAL INSTALLATIONS COMPLETED

## MEDIA

### News

Created in 2010, on a weekly basis



# 322.688

VIEWS BY SOCIAL READERS

# 143

INDICATIONS OF CONTENT

### PRESS AND SOCIAL NETWORKS

119 CONTENT PUBLISHED MENTIONING CBCA IN NEWSPAPERS, MAGAZINES AND WEBSITES.

17 PROMOTIONAL VIDEOS RELEASED IN SOCIAL NETWORKS.

19 RELEASES AND NOTES SENT TO THE PRESS.

PUBLISHED MATERIALS ABOUT CBCA'S PERFORMANCE IN VARIOUS VEHICLES, WITH A HIGHLIGHT TO: ArchDaily Portal, AECWeb Portal, SindusCon-SP Portal, Metallic Portal and CBIC Portal.

2,400 direct mentions to CBCA on social networks, with a 55% increase in the total fan base (Facebook, Instagram, Twitter, LinkedIn and Youtube).



## SOCIAL NETWORKS

+99% FACEBOOK FOLLOWERS

+33% LINKEDIN FOLLOWERS

+11% INSTAGRAM FOLLOWERS

+12% TWITTER FOLLOWERS



**573**

POSTED CONTENTS

**12.626.385**

REACHED PEOPLE

**100.947**

PUBLICATION INTERACTIONS

### MAIN PUBLICATIONS



100 LIKES

115 COMMENTS

29 SHARES

53.412 REACHED PEOPLE



245 LIKES

41 COMMENTS

3.341 REACHED PEOPLE



## ROADSHOW

### FROM DESIGN TO STEEL CONSTRUCTION

National circuit of technical lectures held in two Brazilian cities, with the aim of showing how to make a metallic structure viable. The speakers were architect Sérgio Sampaio and engineer Flávio Gaiga (Goiânia and Porto Alegre)

#### Participants' Profile

127 attendees  
Students 45%  
Professionals 55%

#### Lectures Evaluation

**90%**  
EXCELLENT OR GOOD

#### Event Evaluation

**97%**  
EXCELLENT OR GOOD

### STEEL SOLUTIONS FOR BRAZILIAN INFRASTRUCTURE

Technical lecture held in Recife, with the objective of presenting the main characteristics of the industrialized steel construction, highlighting the advantages of using this construction system in public works and infrastructure, showing its viability and debating the main applications, in order to know when and how to build in steel. The speakers were Filemon Botto (engineer), José Augusto (engineer) and Zacarias Chamberlain (engineer)

#### Participants' Profile

53 attendees  
Students 65%  
Professionals 35%

#### Lectures Evaluation

**93%**  
EXCELLENT OR GOOD

#### Event Evaluation

**90%**  
EXCELLENT OR GOOD

**180**  
TOTAL NUMBER OF PARTICIPANTS



Sinduscon-Goiânia

**ROAD  
SHOW**



Associação do Aço do Rio Grande do Sul - Porto Alegre

## CBCA COMPETITION FOR ARCHITECTURE STUDENTS

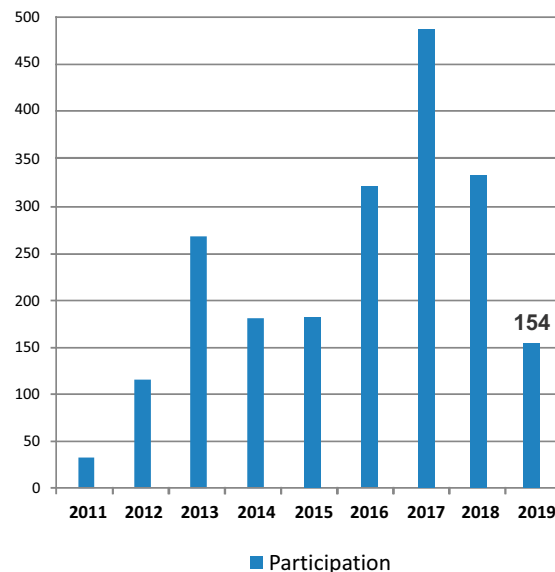
### Theme: Factory of Ideas and Innovation

The Contest aims to stimulate the creative work of architecture students in projects with steel structures. In 2019, it received 154 applications from 82 universities in 22 Brazilian states.

A award ceremony was held at the Federal University of Rio Grande do Norte, where the winning team was located, in october.

The winning team of the CBCA Contest represented the country in the ALACERO Contest, in Buenos Aires - Argentina, taking 1st place in this Competition.

### Evolution of Participation



**1st PLACE**  
Universidade Federal do Rio Grande do Norte (RN)

**2nd PLACE**  
Faculdade Presbiteriana Mackenzie (SP)

**3rd PLACE**  
Universidade Tuiuti do Paraná – (PR)

**HONORABLE MENTION I**  
Pontifícia Universidade Católica do Paraná – (PR)

**HONORABLE MENTION II**  
Universidade Estadual de Goiás – (GO)

**HONORABLE MENTION III**  
Universidade Federal de Minas Gerais – (MG)

**21.058**  
**YEAR VISITS**

Viewing Record:  
7 277 (04/07)

Average time  
on page: 01:25

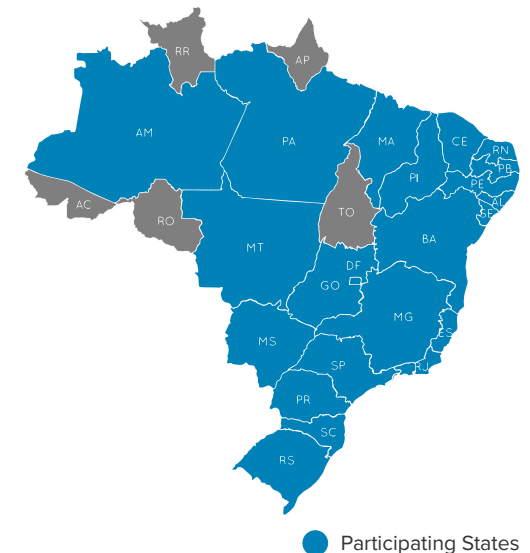
**2.268**  
**SUBSCRIBED TEAMS**  
**(2008-2019)**

**96.108**  
**VIEWS**

Devices:  
Desktop: 68.9%  
Mobile: 30.02%  
Tablet: 1.08%



Winning teams receiving the award in Rio Grande do Norte.



## CBCA COMPETITION FOR ARCHITECTURE STUDENTS / ALACERO

### Theme: Factory of Ideas and Innovation

More than 1000 students from different universities in Latin America participated in the contest. The students developed projects based on the theme Factory of Ideas and Innovation.

After winning the 12th Competition for Architecture Students at the Brazilian Center for Steel Construction (CBCA), students Bruna Barbosa and Lino Mendonça, from the Federal University of Rio Grande do Norte (UFRN), won first place in the 1st 2nd Course Alacero for Estudiantes de Arquitectura, promoted by the Latin American Steel Association (Alacero).

The students were guided by Professor Verner Max and were given the mission to represent Brazil in the international competition after winning the national stage. The announcement of the winners happened yesterday (11/11), during the Alacero 60 Congress, which is being held in Buenos Aires, with student Bruna Barbosa receiving the prize of US \$ 6 thousand of the hands of the director of institutional affairs of Aço Brasil and regional secretary of Alacero, Cristina Yuan.

The second place went to the team from the National University Pedro Henriquez Urena, from the Dominican Republic, and the third to the students from the Central University, from Chile. The contest also awarded a Mexican team with an honorable mention. Teams from Argentina, Colombia and Ecuador also participated.

Since 2008, CBCA and Alacero have been partners in carrying out the Competition for Architecture Students, with CBCA responsible for carrying out the national stage of the Competition, which in 2019 brought together 154 teams from 82 universities, representing 22 Brazilian states. The Contest Today CBCA is considered one of the most important competitions for architecture students in Brazil.



UFRN student receiving award for 1st place at the Alacero Congress

**341**  
EQUIPIES

**137**  
UNIVERSITIES

**1.057**  
STUDENTS



## CBCA CONTEST FOR ENGINEERING STUDENTS

### Theme: Modular walkways on DNIT highways

The "1st CBCA CONTEST FOR ENGINEERING STUDENTS 2018" aims to increase the understanding of engineering issues, such as: spatial restrictions, steel material properties, etc. The success of the competition is in the application of the principles of engineering, theory and practice, and future engineers are encouraged to innovate and use structural steel efficiently. Topics include: manufacturing, assembly, safety, aesthetics, cost management.

The success of the competition is in the application of the principles of engineering, theory and practice, and future engineers are encouraged to innovate and use structural steel efficiently.

**68**  
**SUBSCRIBED TEAMS**  
**(IN 2018)**

**12.699**  
**VIEWS**

Desktop: 64,85% / Mobile: 34,47%  
Tablet: 0,68%

**00:02:35**  
**NORMAL SESSION DURATION**



Concurso CBCA para estudantes de  
**ENGENHARIA**  
PASSARELAS E PONTES DE AÇO | 2018

**1st PLACE**  
Universidade Federal de Lavras (MG)

**2nd PLACE**  
Instituto Mauá de Tecnologia (SP)

**3rd PLACE**  
Instituto Mauá de Tecnologia (SP)

*Awards in 2019*



## EVENTS AND LECTURES

### SPONSORED / SUPPORTED

Uninta - "Steel Structures - Design, Specification and Protection against Corrosion" -Sobral - 50 people

Unis - "Hybrid and Mixed Structures of Steel and Concrete - Varginha - 60 people

Doctum - Light Steel Framing - Juiz de Fora - 30 people

FSG - From Conception to Steel Construction - Caxias do Sul - 120 people

IAB-MT - Use of industrialized steel structures in airports and other infrastructure works in Brazil - Cuiabá - 170 people

Sustainability and case studies of mixed steel-concrete bridges - CBPE - São Paulo - 210 people

Engineering Institute - Light Steel Framing - São Paulo - 270 people

Federal University of Maranhão - Steel Construction Systems - Maranhão - 120 people

New Standard of Steel Bridges - UFSCAR - São Carlos - 200 people

4th Latin American Steel Framing Congress - São Paulo - 600 people

Course - Technical-Economic Feasibility of Steel Structures - Rio Grande do Sul - 22 people

Course - Mackenzie - Specialization in Design of Steel and Concrete structures for Buildings - São Paulo - 60 people

SATECON - Academic Construction Week - Rio de Janeiro - 600 people

ENDEB -Meeting of Engineering in Brazil - Distrito Federal - 580 people

UENF - Civil Engineering Meeting - Rio de Janeiro - 450 people

**PARTICIPANTS 3.569**



Arena da Amazônia - AM  
Architectural Project: GMP Architekten  
Arquitetura & Aço Magazine - Edition 53



## EXCHANGE WITH SIMILAR INTERNATIONAL ORGANIZATIONS



### worldsteel Association

- Actions, together, to improve steel construction.



### ALACERO – Asociación Latinoamericana del Acero

- At the same time If technician would create, no development of CODUA actions (Committee of Desarrollo del Uso del Acero).

- Coordination of Brazilian participation in the 11th ALACERO Diseño en Acero Competition for Architecture Students 2018



### CMM – Associação Portuguesa de Construção Metálica e Mista

- Maintenance in the exchange of information and publications under the Cooperation Protocol established in 2007.



### AISC – American Institute of Steel Construction

- Participation as an associate.

## NATIONAL ENTITIES

AARS – Associação do Aço do Rio Grande do Sul

ABCEM – Associação Brasileira da Construção Metálica

ABECE - Associação Brasileira de Engenharia e Consultoria Estrutural

ABEMEC-MS - Associação Brasileira dos Engenheiros Mecânicos (Seção Mato Grosso do Sul)

ABENC - Associação Brasileira de Engenheiros Civis

ABM – Associação Brasileira de Metalurgia, Materiais e Mineração

ASBEA - Associação Brasileira dos Escritórios de Arquitetura

CAU – Conselho de Arquitetura e Urbanismo (Departamentos (Goias e Rio Grande do Sul))

CBIC - Câmara Brasileira da Indústria da Construção

CREA - Conselho Regional de Engenharia e Agronomia (Goias e Rio Grande do Sul)

DNIT - Departamento Nacional de Infraestrutura de Transportes

FIEG - Federação das Indústrias do Estado de Goiás

FIERGS - Federação das Industrias do Estado do Rio Grande do Sul

IAB – Instituto de Arquitetos do Brasil (Departamentos MT / RS)

IE – Instituto de Engenharia

INDA – Instituto Nacional dos Distribuidores de Aço

SENGE - Sindicato dos Engenheiros (Departamentos GO / RS)

Sinduscon – Sindicato da Indústria da Construção Civil (Departamentos RS / GO / PE / RS)

## UNIVERSITIES

DOCTUM - Centro Universitário de Teófilo Otoni

FAMA - – Faculdade Machado de Assis

FSG - Centro Universitário da Serra Gaúcha

UEG - Universidade Estadual de Goiás

UENF- Universidade Estadual do Norte Fluminense

UFG - Universidade Federal de Goiás

UFMA - Universidade Federal do Maranhão

UFRGS - Universidade Federal do Rio Grande do Sul

UFRN - Universidade Federal do Rio Grande do Norte

UFSCAR - Universidade Federal de São Carlos

UNINTA - Centro Universitário INTA

UNIRITTER - Centro Universitário Ritter dos Reis

UNIS - Grupo Educacional UNIS





University Center Maria Antônia - SP  
Architectural Project: UNA Arquitetos  
Structural Project: Engebral Consultores  
Arquitetura & Aço Magazine - Edition 54



## TECHNICAL STANDARDS

**CBCA's participation in the elaboration of the following Technical Standards:**

- ABNT NBR 16,694 - Steel and Mixed Steel and Concrete Road Bridges Project - Text sent to the Second Public Consultation;
- CE-02:125.004 - Commission for the Study of Constructive Systems Light Steel Framing - Part 1 concluded in July/ 19. Part02 e03 in progress.
- ABNT NBR 8800 - Design of steel structures and mixed steel and concrete structures of buildings  
The revision meetings of the basic text are underway at ABECE with the participation of CBCA.
- ABNT NBR 14,513 - Corrugated section coated steel tiles - Requirements - Standard under review.
- CE-028:001.004 - Welded and Cold Formed Profiles  
- Reactivated the Standard Studies Commission
- ABNT NBR 16,775 - Steel structures, mixed steel and concrete structures, steel roofs and closings - Management of design, manufacturing and assembly processes - Requirements - In National Consultation
- ABNT NBR 15,980 - Rolled steel profiles for structural use - Dimensions and tolerances - under review.



Marília-SP  
Architectural Project: SuperLimão Studio  
Structural Project: SuperLimão Studio and Ricardo Zulkes  
Arquitetura & Aço Magazine - Edition 54

Shopping Jardim Pamplona - SP  
Architectural Project: L35ACIA Arquitetura  
Structural Project: Group Two and Quadrant Engenharia  
Steel Structure Supply: Tiber  
Arquitetura & Aço Magazine - Edition 54



## STEEL STRUCTURE MAGAZINE – REA

The Magazine supported by CBCA opens space for professionals to exhibit their scientific articles or technical notes on topics related to steel structures and mixed steel-concrete structures.

The publication, which has a scientific nature, has an active and independent editorial board in the evaluation of articles, had its 8th volume published, containing three editions, with a total of 26 articles, always with the participation of researchers from Brazil and Portugal.

All articles receive DOI (\*).

(\*):DOI stands for Digital Object Identifier, that is, Digital Object Identifier. It is a standard for identifying documents on digital networks.



Devices:  
Desktop: 83,6%  
Mobile: 15,6%  
Tablet: 0,8%

**6.737**  
ACCESS

**18.471**  
VIEWS

**4.983**  
NEW USERS



## BRAZIL STEEL CONSTRUCTION GUIDE

The Brazil Steel Construction Guide is an initiative pioneer of the Brazilian Center for Steel Construction - CBCA, with support from the Brazilian Association of Metallic Construction - ABCEM, aiming at the growth of the sector. Maps and disseminates the chain production that participates in steel construction, facilitating consumer access to different products, services and solutions available in the market.

The Guide is continuously updated in order to expand its scope and coverage, incorporating new segments of steel construction and new participants.

**39.627**  
PAGES VIEWS

**17.630**  
VISITAS

**24**  
NEW REGISTRATIONS

**1.210**  
PARTICIPANTS COMPANIES

**3.370**  
DOWNLOADS

**16.343**  
NEW USERS

The Guide is available on Smartphone and Tablet (IOS and Android) responsive site.



## PUBLISHERS

PROJECT DESIGN MAGAZINE FROM FEB TO OCT / 2019

- "Steel - Light and Space"
- Large spans and transparency with use of steel
- Roof - Training center Sports – UFMG
- Steel Tiles: Efficiency and Contemporarily
- Metallic Solutions on Avenida Paulista

**348**  
CBCA WEBSITE ACCESS

--The Projeto Design magazine was extinguished and with that the Nov / Dec edition will be reverted in 4 pages of the Arcoweb Yearbook in 2020.

STRUCTURE MAGAZINE

- The Cajú Viaduct - The Structure metallic and urban mobility
- Steel and Concrete make revitalization possible in downtown São Paulo

**397**  
CBCA WEBSITE ACCESS



## STEEL CONSTRUCTION MANUALS



### SUSTAINABILITY

**40.634**  
MANUAL DOWNLOADS

**3.213**  
MANUAL DOWNLOADS  
METAL FRAME CONNECTIONS  
(RECORD)

**115.197**  
ACCESS TO MANUALS

#### 2019 Editions:

*Bridges and Viaducts in Mixed Beams (Reprint)*

- *Steel Construction Sustainability (New)*

- *Guiding Guide to Good Steel Construction Practice for Buildings*

- *Application (New)*

#### Editions Scheduled for 2020:

- *Bridges and Viaducts in Mixed Beams (Update and printing)*

- *Masonry (Reprint)*

- *Sealing and Coatings Technology for Facades (Reprinting)*





BRTTransbrasil - RJ  
Project: Coba Brasil and Serpen  
Structural Project: Coba Brasil  
Supply of steel structure: Brafer  
Arquitetura & Aço Magazine - Issue 54



## Video classes

- Steel construction features
- Economic viability of steel structures
- Types of Profiles
- Calls
- Transport and assembly of steel structures
- Fire safety in buildings
- Corrosion protection
- Structural
- Structural design
- External seals and slabs

VIDEO CLASS WITH HIGHER NUMBER OF DOWNLOADS

Steel Construction Features

**1.408**  
DOWNLOADS



**12.676**  
ACCESSES

**6.962**  
PAGE VIEWS

**7.797**  
DOWNLOADS

The videos have photos and animations, which can be seen by the student or together with the teacher, as class material.

## COURSE PROMOTION

### Online Course

#### Rio de Janeiro

- Design and Calculation of Light Steel Framing (March - 16 students)
- Sizing of Metal Connections (June - 15 students)
- Light Steel Framing Project and Calculation (June - 14 students)
- Light Steel Framing Project and Calculation (Aug / Sep - 22 students)
- Multi-storey Steel Buildings (November - 19 students)
- Light Steel Framing Project and Calculation (November - 18 students)

#### São Paulo

- Light Steel Framing Project and Calculation - In partnership with SindusCon-SP (May - 05 students)

**109**  
TOTAL OF ON-SITE  
COURSE STUDENTS



Curso presencial no Rio de Janeiro - JUNHO



Curso presencial no Rio de Janeiro - AGOSTO

### Online Course

INTRODUCTION TO  
STEEL CONSTRUCTION

EXECUTION OF STRUCTURES  
IN STEEL

STRUCTURAL SYSTEMS  
IN STEEL

**181**  
STUDENTS COMPLETED  
THE ONLINE COURSES

*The courses "Dimensioning of Steel Structures" Part 01 and Part 02 are in the process of Update.*





OCA Rio Branco - AC Architectural  
Design: Acropolis Architecture Structural  
Design: Andrade e Rezende Project  
Engineering Steel Structure Supply:  
SGE Metallic Structures  
Arquitetura & Aço Magazine - Edition 53





# ACTIVITY REPORT **2019**

MANAGER:



[www.cbca-acobrasil.org.br](http://www.cbca-acobrasil.org.br)