



ISSN No. : 2321-9653

iJRASET

International Journal for Research in Applied
Science & Engineering Technology

IJRASET is indexed with Crossref for DOI-DOI : 10.22214

Website : www.ijraset.com, E-mail : ijraset@gmail.com

Certificate

It is here by certified that the paper ID : IJRASET9726, entitled

*Automated Measurement System for Catalyst Hoppers at the Cracking Plant of a
Petroleum Refinery in Cartagena – Colombia*

by

Johon Gutiérrez Jaraba

*after review is found suitable and has been published in
Volume 5, Issue VIII, August 2017*

in

*International Journal for Research in Applied Science &
Engineering Technology
(International Peer Reviewed and Refereed Journal)
Good luck for your future endeavors*

By [Signature]

Editor in Chief, iJRASET

ISRA
JIF

ISRA Journal Impact
Factor: 7.429

45.98
INDEX COPERNICUS

THOMSON REUTERS
Researcher ID: N-9681-2016

doi 10.22214/IJRASET
cross ref

TOGETHER WE REACH THE GOAL
SJIF 7.429



ISSN No. : 2321-9653

iJRASET

International Journal for Research in Applied
Science & Engineering Technology

IJRASET is indexed with Crossref for DOI-DOI : 10.22214

Website : www.ijraset.com, E-mail : ijraset@gmail.com

Certificate

*It is here by certified that the paper ID : IJRASET9726, entitled
Automated Measurement System for Catalyst Hoppers at the Cracking Plant of a
Petroleum Refinery in Cartagena – Colombia
by
Bashir Yacub Bermudez*

*after review is found suitable and has been published in
Volume 5, Issue VIII, August 2017
in
International Journal for Research in Applied Science &
Engineering Technology
(International Peer Reviewed and Refereed Journal)
Good luck for your future endeavors*

By [Signature]

Editor in Chief, iJRASET

 ISRA

ISRA Journal Impact
Factor: 7.429



45.98

INDEX COPERNICUS



THOMSON REUTERS
Researcher ID: N-9681-2016



TOGETHER WE REACH THE GOAL
SJIF 7.429



ISSN No. : 2321-9653

iJRASET

International Journal for Research in Applied
Science & Engineering Technology

IJRASET is indexed with Crossref for DOI-DOI : 10.22214

Website : www.ijraset.com, E-mail : ijraset@gmail.com

Certificate

It is here by certified that the paper ID : IJRASET9726, entitled

*Automated Measurement System for Catalyst Hoppers at the Cracking Plant of a
Petroleum Refinery in Cartagena – Colombia*

by

Fabio PÃ©rez MÃ¡rquez

*after review is found suitable and has been published in
Volume 5, Issue VIII, August 2017*

in

*International Journal for Research in Applied Science &
Engineering Technology
(International Peer Reviewed and Refereed Journal)
Good luck for your future endeavors*

By [Signature]

Editor in Chief, iJRASET

 ISRA

ISRA Journal Impact
Factor: 7.429



45.98

INDEX COPERNICUS



THOMSON REUTERS
Researcher ID: N-9681-2016



TOGETHER WE REACH THE GOAL
SJIF 7.429



ISSN No. : 2321-9653

iJRASET

International Journal for Research in Applied
Science & Engineering Technology

IJRASET is indexed with Crossref for DOI-DOI : 10.22214

Website : www.ijraset.com, E-mail : ijraset@gmail.com

Certificate

*It is here by certified that the paper ID : IJRASET9726, entitled
Automated Measurement System for Catalyst Hoppers at the Cracking Plant of a
Petroleum Refinery in Cartagena – Colombia
by
Libis Valdez Cervantes*

*after review is found suitable and has been published in
Volume 5, Issue VIII, August 2017
in
International Journal for Research in Applied Science &
Engineering Technology
(International Peer Reviewed and Refereed Journal)
Good luck for your future endeavors*

By [Signature]

Editor in Chief, iJRASET

 ISRA

ISRA Journal Impact
Factor: 7.429



45.98

INDEX COPERNICUS



THOMSON REUTERS
Researcher ID: N-9681-2016



TOGETHER WE REACH THE GOAL
SJIF 7.429